Prepared for

Gulf Power Company
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Pensacola, Florida 32520

2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GULF POWER COMPANY, PLANT CRIST GYPSUM STORAGE AREA

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Project Number TXR0943

January 31, 2020

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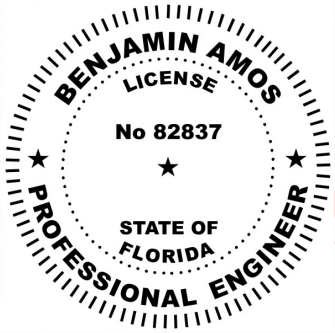
CERTIFICATION STATEMENT

This *2019 Annual Groundwater Monitoring and Corrective Action Report, Gulf Power Company – Plant Crist – Gypsum Storage Area* has been prepared in accordance to the requirements of the United States Environmental Protection Agency coal combustion residuals rule (40 Code of Federal Regulations Part 257, Subpart D) under the supervision of a State of Florida licensed Professional Engineer and Professional Geologist with Geosyntec Consultants, Inc.



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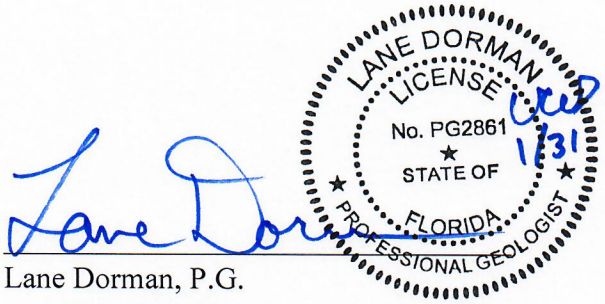

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency ("USEPA") coal combustion residuals ("CCR") rule (40 Code of Federal Regulations Part 257, Subpart D) ("CCR Rule"), this *2019 Annual Groundwater Monitoring and Corrective Action Report* documents the CCR groundwater monitoring and remedial evaluation activities completed in 2019 at Gulf Power Company's Plant Crist Gypsum Storage Area ("GSA").

Gulf Power previously installed a CCR groundwater monitoring system to monitor groundwater within the uppermost aquifer in the vicinity of the GSA. Based on potentiometric data, select CCR network wells (i.e., MW-202, MW-203, MW-204, and MW-205) were reclassified in 2019 as upgradient wells. Following this reclassification, the GSA CCR groundwater monitoring network is comprised of the following monitoring wells:

- background wells: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307;
- downgradient wells: MW-200, MW-201, and MW-206; and
- upgradient wells: MW-202, MW-203, MW-204, and MW-205.

As reported previously (Southern Company, 2018), statistical evaluation of CCR groundwater monitoring data collected through October 2017 identified statistically significant increases of certain Appendix III groundwater monitoring constituents above background. In accordance with the CCR Rule, Gulf Power initiated an assessment monitoring program for the GSA in March 2018 (Geosyntec, 2019a) and continued assessment monitoring activities for the GSA in 2019. The 2019 annual assessment monitoring event for all Appendix III and Appendix IV parameters was conducted in February/March 2019. The semi-annual events were conducted in May/June and November 2019 for all Appendix III parameters and Appendix IV parameters detected during the annual event.

In 2019, analytical data from the October 2018 (Geosyntec, 2019a) and May/June 2019 sampling events were analyzed in accordance with the *Statistical Analysis Plan* (GSC, 2017). Statistical analysis of analytical data from November 2019 is ongoing and will be reported in 2021. Statistical analysis of data from the October 2018 and May/June 2019

sampling events indicated statistically significant increases ("SSIs") of the following Appendix III constituents above background levels: boron, calcium, chloride, fluoride, sulfate, total dissolved solids, and pH.

Statistical analysis of the CCR groundwater monitoring data identified the following statistically significant levels ("SSLs") of Appendix IV constituents above applicable groundwater protection standards:

SSL Constituent	Semi-annual assessment monitoring event	
	October 2018	May/June 2019
Radium 226 and 228 combined (total radium)	MW-200 MW-201 MW-203 MW-204 MW-206	MW-200 MW-201 MW-206
Cobalt	MW-204	

In 2019, characterization activities were implemented to evaluate the nature and extent of total radium downgradient of the GSA. Delineation activities were largely completed in 2019, although additional characterization is ongoing for total radium at select locations.

Gulf Power initiated an assessment of corrective measures ("ACM") in January 2019. The *Assessment of Corrective Measures Report* (Geosyntec, 2019c) was completed in June 2019, following a 60-day extension, as documented in April 2019 (see **Appendix D**). A public meeting was held in December 2019 to discuss the ACM. Corrective measures evaluation and remedy selection is ongoing.

Gulf Power will continue to operate an existing groundwater pump and treat system in 2020. This system was installed in accordance with Consent Order OGC No. 16-1250 between Gulf Power and the Florida Department of Environmental Protection to promote the removal of groundwater constituents downgradient of the GSA resulting from an unpermitted discharge from GSA-related infrastructure.

In 2020, the GSA will remain in assessment monitoring.

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1.0 INTRODUCTION

1.1 Overview

On behalf of Gulf Power Company ("Gulf Power"), Geosyntec Consultants, Inc. ("Geosyntec") has prepared this *2019 Annual Groundwater Monitoring and Corrective Action Report* for Gulf Power's Plant Crist ("Site") Gypsum Storage Area. The purpose of this report is to present a summary of the CCR groundwater activities conducted in 2019 in accordance with the annual reporting requirements of the CCR Rule, section 2.70.90(e).

The Site is located at 11999 Pate Street in Pensacola, Escambia County, Florida, and is situated on approximately 670 acres. A Site location map is provided in **Figure 1**. Site topography ranges from approximately 120 feet ("ft") relative to the North American Vertical Datum of 1988 ("NAVD88") on the western portions of the Site and along Pate Street to approximately 5 ft NAVD88 near Clear Creek to the north and Governor's Bayou to the east. The GSA is located on the eastern portion of the property.

1.2 Regional Geology & Hydrogeologic Setting

The Sand and Gravel Aquifer, the uppermost aquifer underlying the Site, includes Pleistocene terrace deposits, the Pleistocene Citronelle Formation, and the upper portion of the Pliocene/Miocene coarse clastics. The Sand and Gravel Aquifer has been subdivided into three major zones (listed in order from ground surface): (i) the surficial zone; (ii) the low permeability zone; and (iii) the main producing zone (Roaza et al., 1991).

The surficial zone consists of the upper most layer of sand and gravel, although layers of silt and clay may also occur within this zone. Beneath the surficial zone is the low permeability zone. The low permeability zone is the first substantial, more regionally continuous lower permeability layer encountered within the Sand and Gravel Aquifer (Roaza et al., 1991). This layer generally consists of a poorly sorted mixture of sand, silt, and clay, although actual lithology is variable. As a semi-confining interval, the low permeability zone limits vertical groundwater flow between the surficial zone above and the main producing zone below (Roaza et al., 1991). The main producing zone is lithologically similar to the surficial zone with moderate to well sorted quartz sands and gravels with interbedded layers of sandy clay and clay. Groundwater in the main

producing zone is under semi-confined conditions due to the nature of the low permeability zone that lies above and a regionally extensive confining unit that lies underneath (Richards, 2001).

The Sand and Gravel Aquifer underlies the Site (Barraclough and Marsh, 1962). Site-specific lithology in the uppermost aquifer consists primarily of silty or clayey sands interbedded with well-graded sands and gravels. Groundwater in the uppermost aquifer at the Site is generally encountered between 15 and 4 ft NAVD88 within the Sand and Gravel Aquifer in a laterally-extensive water-bearing zone of fine to coarse sand. This aquifer is considered the uppermost aquifer for groundwater monitoring purposes. CCR groundwater monitoring wells were screened in the uppermost aquifer between approximately 6 and -23 ft NAVD88.

1.3 GSA CCR Unit and Groundwater Monitoring System Descriptions

The GSA is an active gypsum storage pond occupying approximately 14.3 acres. The pond bottom is constructed of an engineered composite liner consisting of a 60-mil high-density polyethylene ("HDPE") underlain by a geosynthetic liner. Gypsum, process water, and stormwater are conveyed to the GSA. Decant water from the GSA is managed through gravity feed pipes to two associated ponds – the Process Sedimentation Pond and the Process Return Water Pond.

Pursuant to the CCR Rule, Gulf Power installed a CCR groundwater monitoring system around the GSA to monitor groundwater within the uppermost aquifer (Southern Company ("SC'), 2018). Background monitoring wells were installed to establish Site-wide background water quality. The downgradient monitoring well network was installed at the waste boundary of the GSA.

In the *2018 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2019a) and prior documents, monitoring wells MW-202, MW-203, MW-204, and MW-205 were included as downgradient wells based on suspected radial groundwater flow from the GSA. Subsequent monitoring events have consistently demonstrated that groundwater flows toward the northeast without observed radial flow from the GSA. Therefore, monitoring wells MW-202, MW-203, MW-204 and MW-205 are hydraulically upgradient of the GSA and were reclassified as upgradient monitoring wells. Accordingly, the GSA groundwater monitoring network is comprised of the following wells:

- background wells: MW-100, MW-101, MW-107, MW-108, MW-306, and MW-307;
- downgradient wells: MW-200, MW-201, and MW-206, and
- upgradient wells: MW-202, MW-203, MW-204, and MW-205.

In 2019, Gulf Power installed and/or sampled the following wells/piezometers around the GSA to evaluate the nature and extent of identified statistically significant levels ("SSLs") for Appendix IV constituents:

- existing wells: GE-1D and GSA-2S; and
- new piezometers: PZ-200S, PZ-200D, PZ-201D, and PZ-203D.

Results from initial delineation activities were documented in the *Assessment of Corrective Measures* (Geosyntec, 2019c). Additional characterization activities are discussed in Section 3.3.

Monitoring well details, including installation date, coordinates, elevations, screen intervals, and designations are summarized in **Table 1**. The CCR groundwater monitoring and delineation well networks for the GSA are depicted in **Figure 2**.

1.4 Groundwater Corrective Action

As reported by SC (2018), and pursuant to Consent Order OGC No. 16-1250 ("Consent Order") between Gulf Power and the Florida Department of Environmental Protection ("FDEP"), Gulf Power installed a groundwater pump and treat system downgradient of the GSA to promote the removal of groundwater impacts resulting from an unpermitted discharge from GSA-related infrastructure (SC, 2018). Extracted groundwater is treated onsite and disposed through permitted deep injection wells. Groundwater extraction and treatment is ongoing at the GSA and Gulf Power will continue to operate the groundwater pump and treat system in 2020.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes CCR groundwater monitoring-related activities performed during 2019. Groundwater samples were collected from monitoring wells in the CCR groundwater monitoring and delineation networks shown in **Figure 2**. A summary of groundwater sampling events completed in 2019 is provided in **Table 2**. Groundwater analytical data associated with these events are summarized in **Table 3**; laboratory analytical reports are included in **Appendix A**.

2.1 Monitoring Well Installation and Maintenance

Monitoring well and piezometer installation activities were completed for the GSA in 2015 and 2016 (SC, 2018). In 2019, Gulf Power installed delineation piezometers PZ-200S, PZ-200D, PZ-201D, and PZ-203D. Construction information for the piezometers installed in 2019 is provided in **Table 1** and locations are shown in **Figure 2**.

2.2 Annual Assessment Monitoring Event

The 2019 annual assessment monitoring event was conducted in February/March 2019. During the 2019 annual assessment monitoring event, groundwater samples were collected from each monitoring well and analyzed for Appendix III and Appendix IV constituents. In addition, delineation wells PZ-200S, GSA-2S, PZ-201D, GE-1D, and PZ200D were sampled. The following Appendix IV constituents were detected above laboratory detection limits: arsenic, barium, beryllium, cadmium, cobalt, radium 226 and 228 combined (total radium), fluoride, lead, lithium, mercury, selenium, and thallium.

2.3 Semi-Annual Assessment Monitoring Events

The semi-annual events were conducted in May/June and November 2019. During the 2019 semi-annual assessment monitoring events, groundwater samples were collected from each GSA monitoring and delineation well/piezometer and analyzed for all Appendix III constituents and those Appendix IV constituents detected above laboratory detection limits during the annual assessment monitoring event.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following section describes the methods used to conduct CCR groundwater monitoring at the GSA.

3.1 Groundwater Elevation Measurement

Prior to each CCR sampling event, groundwater elevations were recorded from the CCR groundwater monitoring well network. Groundwater elevations recorded during the annual and semi-annual assessment monitoring events are summarized in **Table 4**. Site-wide potentiometric surface elevation contour maps developed using groundwater elevation data from each event are presented in **Figure 3, Figure 4,** and **Figure 5**. As illustrated on the potentiometric figures, the general direction of groundwater flow near the GSA is to the northeast. The groundwater flow patterns observed during the 2019 assessment monitoring events are generally consistent with observations from 2018 (Geosyntec, 2019a).

3.2 Groundwater Sampling

Groundwater samples were collected in general accordance with Florida Department of Environmental Protection ("FDEP") Standard Operation Procedure FS2200 (FDEP, 2017) and the CCR Rule. A SmarTroll™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, and dissolved oxygen) during well purging to evaluate stabilization prior to sampling. Turbidity was measured using a portable turbidimeter. Following sample collection, samples were placed in ice-packed coolers and submitted to Eurofins TestAmerica Laboratories, Inc. ("TAL"), in Pensacola, Florida following chain-of-custody protocol. Field sampling data sheets are provided in **Appendix A**.

3.3 Delineation Sampling

To delineate the nature and extent of total radium at the GSA, samples were collected during the annual and semi-annual assessment monitoring events as described below:

- To delineate the horizontal and vertical extent of total radium at MW-200, Gulf Power sampled PZ-200S and PZ-200D, respectively.

- To delineate the horizontal and vertical extent of total radium at MW-201, Gulf Power sampled GSA-2S and PZ-201D, respectively.

- To delineate the horizontal extent of total radium at MW-203, Gulf Power sampled MW-202.

- To delineate the horizontal extent of total radium at MW-204, Gulf Power sampled MW-205.

- To delineate the vertical extent of total radium in the vicinity of MW-203 and MW-204, Gulf Power installed and sampled PZ-203D.

- To delineate the horizontal and vertical extent of total radium at MW-206, Gulf Power sampled GSA-2S and GE-1D, respectively.

PZ-203D, which was installed following submittal of the *Assessment of Corrective Measure Report* (Geosyntec, 2019c), provided vertical delineation of total radium near MW-203 and MW-204 (see **Table 3**). For other locations, results from delineation activities performed during semi-annual monitoring events were generally consistent with those reported previously (Geosyntec, 2019c). Delineation is complete, except as noted below.

Evaluation of the nature and extent of total radium in the vicinity of MW-200 and MW-206 is ongoing. In December 2019, Gulf Power collected additional samples of groundwater and soil for laboratory analysis to evaluate the potential for natural sources of radium around the GSA. Preliminary data indicates that some portion of total radium observed downgradient of the GSA may be contributed by natural sources.

As discussed in Sections 1.3 and 4.2.1, MW-204 has been reclassified as an upgradient well. The previously identified SSL for cobalt at MW-204, therefore, is not reflective of downgradient conditions or indicative of impacts to groundwater from the GSA. Preliminary delineation activities for cobalt at MW-204, although no longer required, were discussed previously in the *Assessment of Corrective Measures Report* (Geosyntec, 2019c) and are not repeated herein.

3.4 Laboratory Analyses

Laboratory analyses for groundwater samples collected during the annual and semi-annual assessment monitoring events included both Appendix III and Appendix IV constituents. Applicable analytical methods are provided in laboratory reports in **Appendix A**.

Laboratory analyses were performed by TAL. TAL is accredited by the National Environmental Laboratory Accreditation Program ("NELAP") and maintain a NELAP certification for all parameters analyzed for this project. In addition, TAL is certified to perform analysis by the State of Florida. Groundwater data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

3.5 Quality Assurance & Quality Control Summary

During each sampling event, quality assurance/quality control ("QA/QC") samples including equipment blanks, field blanks, and duplicate samples were collected. Data from these QA/QC samples were evaluated during data validation.

Groundwater quality data in this report were independently validated in accordance with United States Environmental Protection Agency ("USEPA") guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences ("RPDs"), post digestions spikes, laboratory and field duplicate RDPs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Data validation reports are included in **Appendix A** except for the November 2019 semi-annual assessment monitoring data validation report which will be reported in 2021.

4.0 STATISTICAL ANALYSIS

The following section describes the statistical methods and analyses performed in 2019. Statistical analysis of data collected during the November 2019 semi-annual monitoring event is ongoing and will be reported in 2021.

As stated in Sections 1.3 and 3.3, monitoring wells MW-202, MW-203, MW-204 and MW-205 have been reclassified and are no longer considered to be downgradient of the GSA. Therefore, data from these wells are not included in the statistical analyses for 2019.

4.1 Statistical Method

Statistical analysis of Appendix III and detected Appendix IV constituents was performed on CCR groundwater monitoring data collected during the October 2018 semi-annual event and May/June 2019 semi-annual monitoring event in accordance with the *Statistical Analysis Plan* ("SAP") (Groundwater Stats Consulting ("GSC"), 2017). The SAP describes site-specific statistical methods that are used to evaluate CCR groundwater data.

Statistical analysis of CCR groundwater data was performed using the Sanitas™ v.9.6.05 groundwater statistical software. Sanitas™ is a decision support software package that incorporates statistical tests required of Subtitle C and D facilities by USEPA regulations and incorporates methods recommended in the *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance* (USEPA, 2009).

4.1.1 Assessment Monitoring Statistical Method

Groundwater protection standards ("GWPSs") for Appendix IV constituents were established in accordance with the CCR Rule. The GWPSs are presented in **Table 5**.

To identify SSLs of Appendix IV constituents, confidence intervals were constructed for each detected Appendix IV constituent in each downgradient well and compared to the GWPSs (**Table 5**). An SSL was identified only when the entire confidence interval is above the GWPS. Other statistical tests, including time-series plots and trend analyses, were performed in accordance with the SAP. Additional details are presented in the statistical analysis packages provided in **Appendix B** and **Appendix C**.

4.1.2 Appendix III Constituent Statistical Method

Statistical analysis of Appendix III constituents was performed to evaluate if concentrations were consistent with observed background values. Statistical tests used to evaluate the CCR groundwater monitoring data consisted of interwell prediction limits combined with a 1-of-2 resample strategy for the following Appendix III constituents: boron, calcium, chloride, fluoride, sulfate, and TDS. Interwell prediction limits pool upgradient well data to establish a background prediction limit for an individual constituent, and the most recent sample from each downgradient well is compared to the background prediction limit for each parameter. Intrawell prediction limits combined with a 1-of-2 resample strategy were used to evaluate pH at each well. Intrawell prediction limits are constructed using historical data within a given well and compare the most recent sample to background levels within the same well. The 1-of-2 resample strategy allows for collection of a verification sample when statistically significant increases ("SSIs") are identified. If the most recent sample exceeded its respective background prediction limit and a verification sample is not collected, a SSI is identified.

4.2 Statistical Analyses Results

Analytical data from the October 2018 and May/June 2019 semi-annual monitoring events were analyzed in accordance with the SAP. Appendix III statistical analysis was performed to evaluate if constituents in groundwater were consistent with background levels. Appendix IV constituents were evaluated to assess if groundwater concentrations statistically exceeded the established GWPSs.

4.2.1 Assessment Monitoring Statistical Results

A summary of the Sanitas™ outputs for the October 2018 and May/June 2019 semi-annual monitoring events are provided in **Appendix B** and **Appendix C**, respectively. Based on the statistical analysis of Appendix IV constituents, the following SSLs were identified:

SSL Constituent	Semi-annual assessment monitoring event	
	October 2018	May/June 2019
Radium 226 and 228 combined (total radium)	MW-200 MW-201 MW-203 MW-204 MW-206	MW-200 MW-201 MW-206
Cobalt	MW-204	

As discussed in Sections 1.3 and 3.3, monitoring wells MW-203 and MW-204 were reclassified as upgradient monitoring wells. Accordingly, previously detected SSLs for total radium in MW-203 and MW-204 and cobalt in MW-204 are not reflective of downgradient conditions or indicative of impacts to groundwater from the GSA. This is further supported by the alternate source demonstration ("ASD") that was prepared for CCR units upgradient of the GSA (Geosyntec, 2019b) which identify the presence of natural sources of these constituents. In light of the reclassification of MW-203 and MW-204 as upgradient wells, monitoring data from these wells will not be included in the statistical analysis program moving forward. Gulf Power will continue to monitor these wells in accordance with the CCR Rule to evaluate potential upgradient sources of Appendix IV constituents coming into the GSA.

Gulf Power is continuing to evaluate the nature and extent of total radium in the vicinity of the GSA. Additionally, Gulf Power is conducting an assessment of soil and groundwater that preliminarily indicates the potential for natural sources of radium around the GSA such that some portion of the total radium observed downgradient of the GSA may contributed by natural sources.

4.2.2 Appendix III Constituent Statistical Results

The Appendix III statistical analysis identified SSIs of the following constituents: boron, calcium, chloride, fluoride, sulfate, total dissolved solids, and pH. A summary of Sanitas™ output of Appendix III statistical analysis for the October 2018 and May/June 2019 semi-annual monitoring events are presented in **Appendix B** and **Appendix C**, respectively.

5.0 CONCLUSIONS AND FUTURE ACTIONS

In accordance with the CCR Rule, Gulf Power continued implementation of assessment monitoring in 2019. Statistical analysis identified SSLs of total radium downgradient of the GSA. Characterization activities were implemented to evaluate the nature and extent of total radium downgradient of the GSA. Delineation activities were largely completed in 2019, although additional characterization is ongoing for total radium at select locations.

An assessment of corrective measures ("ACM") was initiated in January 2019 and was completed in June 2019 (Geosyntec, 2019c). A public meeting was held in December 2019 to discuss the ACM. Corrective measures evaluation and remedy selection is ongoing, as documented in the December *2019 Remedy Selection Semi-Annual Progress Report* (Geosyntec, 2019d).

Assessment monitoring will continue in 2020. Additionally, Gulf Power will continue to operate the existing groundwater pump and treat system in 2020 to promote the removal of impacted groundwater downgradient of the GSA.

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TABLES

TABLE 1: MONITORING WELL NETWORK SUMMARY
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Designation
Gypsum Storage Area - CCR Groundwater Monitoring Network								
MW-100	11/11/2015	578116.11	1107316.00	99.84	103.03	-5.16	-15.16	Background
MW-101	11/10/2015	577158.45	1107724.27	105.1	108	-1.9	-11.9	Background
MW-107	11/17/2015	577201.66	1107442.83	111.4	114.71	1.4	-8.6	Background
MW-108	11/17/2015	576208.36	1107577.06	80.51	83.54	-4.49	-14.49	Background
MW-200	11/11/2015	581703.17	1108041.01	17.2	20.13	-2.8	-12.8	Downgradient
MW-201	11/11/2015	581138.29	1108637.91	52.45	52.12	3.15	-6.85	Downgradient
MW-202	11/10/2015	580559.03	1109045.35	55.8	55.45	6.3	-3.7	Upgradient
MW-203	11/9/2015	580100.37	1108497.51	47.46	50.6	-2.54	-12.54	Upgradient
MW-204	11/9/2015	580325.06	1107978.45	16.43	19.47	-3.57	-13.57	Upgradient
MW-205	11/17/2015	581076.41	1107907.46	17.31	20.28	-2.69	-12.69	Upgradient
MW-206	2/9/2016	581888.48	1108613.37	26.25	29.11	1.25	-8.75	Downgradient
MW-306	11/19/2015	578417.11	1106200.44	67.61	70.56	-12.39	-22.39	Background
MW-307	11/19/2015	578209.77	1106865.99	101.11	104.18	-8.89	-18.89	Background
Groundwater Monitoring Locations for Delineation								
PZ-200S	2/5/2019	581853.34	1108016.45	5.09	8.31	-19.83	-24.83	Delineation
GSA-2S	4/13/2017	582073.8	1108707.19	21.03	24	-20.97	-30.97	Delineation
PZ-201D	2/6/2019	581161.53	1108641.12	52.02	52	-131.98	-136.98	Delineation
GE-1D	6/24/2009	581996.86	1108509.35	18.94	20.77	-77.06	-82.06	Delineation
PZ-200D	1/29/2019	581775.39	1108002.66	8.89	12.03	-129.11	-139.11	Delineation
PZ-203D	7/15/2019	580127.2	1108145.63	12.36	15.44	-178.56	-183.56	Delineation

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.

TABLE 2: SUMMARY OF 2019 GROUNDWATER SAMPLING EVENTS
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Well Name	2019 Annual Assessment Monitoring Event	2019 Semi-Annual Assessment Monitoring Event 1	2019 Semi-Annual Assessment Monitoring Event 2
Gypsum Storage Area - CCR Groundwater Monitoring Network			
MW-100	2/27/2019	5/31/2019	11/6/2019
MW-101	2/27/2019	5/31/2019	11/6/2019
MW-107	2/27/2019	5/31/2019	11/6/2019
MW-108	2/27/2019	5/31/2019	11/6/2019
MW-200	2/28/2019	6/4/2019	11/12/2019
MW-201	3/5/2019	6/4/2019	11/12/2019
MW-202	3/5/2019	6/4/2019	11/12/2019
MW-203	3/1/2019	6/4/2019	11/12/2019
MW-204	2/28/2019	6/4/2019	11/12/2019
MW-205	2/28/2019	6/4/2019	11/12/2019
MW-206	2/28/2019	6/4/2019	11/12/2019
MW-306	2/27/2019	5/31/2019	11/6/2019
MW-307	2/27/2019	5/31/2019	11/6/2019
Groundwater Monitoring Locations for Delineation			
PZ-200S	3/5/2019	6/7/2019	11/15/2019
GSA-2S	3/6/2019	6/5/2019	11/15/2019
PZ-201D	3/5/2019	6/7/2019	11/14/2019
GE-1D	3/6/2019	6/7/2019	11/14/2019
PZ-200D	4/2/2019	6/7/2019	11/20/2019
PZ-203D	NI	NI	11/14/2019

Notes:

1. Assessment indicates a sampling event conducted during assessment monitoring, and includes groundwater samples analyzed for Appendix III and Appendix IV parameters.
2. NI indicates well not installed at the time of the groundwater sampling event.

TABLE 3: SUMMARY OF 2019 GROUNDWATER LABORATORY ANALYTICAL DATA
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Monitoring Well	Well Designation	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Combined Radium (pCi/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	pH (SU)	Selenium (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Thallium (mg/L)
Annual Assessment Monitoring Event																							
MW-100	Background	2/27/2019	0.0010 U	0.00046 U	0.021	0.00034 U	0.021 U	0.00034 U	0.96	4.6	0.0011 U	0.00065 I	0.651	0.032 U	0.00035 U	0.0011 U	0.000070 U	0.0020 U	4.75	0.00071 U	1.4 U	110	0.000085 U
MW-101	Background	2/27/2019	0.0010 U	0.00046 U	0.011	0.00034 U	0.021 U	0.00034 U	0.44	5.1	0.0011 U	0.00040 U	0.827	0.032 U	0.00035 U	0.0011 U	0.000070 U	0.0020 U	4.84	0.00071 U	1.9 I V	68	0.000085 U
MW-107	Background	2/27/2019	0.0010 U	0.00046 U	0.014	0.00034 U	0.021 U	0.00034 U	0.56	5	0.0011 U	0.00056 I	0.912	0.032 U	0.0010 I	0.0011 U	0.000070 U	0.0020 U	4.78	0.00071 U	1.4 U	54	0.000085 U
MW-108	Background	2/27/2019	0.0010 U	0.00046 U	0.011	0.00034 U	0.021 U	0.00034 U	1.3	4.3	0.0011 U	0.00040 U	1.8	0.032 U	0.00035 U	0.0011 U	0.000070 U	0.0020 U	4.71	0.00071 U	2.4 I	110	0.000085 U
MW-306	Background	2/27/2019	0.0010 U	0.00046 U	0.015	0.00034 U	0.021 U	0.00034 U	0.63	5.1	0.0011 U	0.00040 U	0.741	0.032 U	0.00035 U	0.0011 U	0.000070 U	0.0020 U	4.87	0.00071 U	1.4 U	20	0.000085 U
MW-307	Background	2/27/2019	0.0010 U	0.00046 U	0.018	0.00034 U	0.021 U	0.00034 U	0.7	4	0.0011 U	0.00045 I	0.431	0.032 U	0.00035 U	0.0020 I	0.000070 U	0.0020 U	5.40	0.00071 U	1.4 U	28	0.000085 U
MW-200	Downgradient	2/28/2019	0.0010 U	0.00067 I	0.045	0.00034 U	8.5	0.00034 U	230	470	0.0011 U	0.0024 I	9.70	0.30	0.0012 I	0.0025 I	0.0016	0.0020 U	4.97	0.0044	130	1400	0.0001 I
MW-201	Downgradient	3/5/2019	0.0010 U	0.00046 U	0.035	0.00034 U	2.1	0.0023 I	43	75	0.0011 U	0.0017 I	8.11	0.64	0.00037 I	0.0043 I	0.0026	0.0020 U	4.71	0.0012 I	86	300	0.00016 I
MW-202	Upgradient	3/5/2019	0.0010 U	0.00046 U	0.029	0.00034 U	0.098	0.00034 U	5	15	0.0011 U	0.00077 I	2.17	0.032 U	0.00035 U	0.0011 U	0.000078 I	0.0020 U	4.93	0.00071 U	6.1	68	0.000085 U
MW-203	Upgradient	3/1/2019	0.0010 U	0.00046 U	0.039	0.00034 U	1.1	0.00034 U	30	24	0.0011 U	0.0023 I	7.07	0.04 I	0.00035 U	0.0011 I	0.000070 U	0.0020 U	4.46	0.0014	100	190	0.000085 U
MW-204	Upgradient	2/28/2019	0.0010 U	0.0015	0.024	0.00038 I	4.9	0.00034 U	62	72	0.0011 U	0.013	11.4	0.27	0.0019	0.0016 I	0.000070 U	0.0020 U	4.31	0.0028	310	660	0.00027 I
MW-205	Upgradient	2/28/2019	0.0010 U	0.00046 U	0.057	0.00034 U	1.4	0.00034 U	27	19	0.0011 U	0.0022 I	3.28	0.070 I	0.00047 I	0.0011 U	0.00019 I	0.0020 U	5.02	0.00071 U	110	200	0.000085 U
MW-206	Downgradient	2/28/2019	0.0010 U	0.00089 I	0.048	0.00034 U	20	0.00065 I	350	720	0.0011 U	0.0022 I	8.04	0.10	0.0019	0.0011 U	0.00012 I	0.0020 U	4.42	0.011	240	1700	0.00024 I
PZ-200S	Delineation	3/5/2019	0.0010 U	0.00046 U	0.050	0.00034 U	10	0.00034 U	220	450	--	0.0055	6.56	0.040 I	0.00050 I	0.0017 I	0.000070 U	0.0020 U	5.31	0.0027	160	1300	0.00015 I
GSA-2S	Delineation	3/6/2019	0.0010 U	0.00046 U	0.031	0.00034 U	1.6	0.00034 U	39	56	--	0.0010 I	2.65	0.032 U	0.00056 I	0.0011 U	0.000070 U	0.0020 U	4.48	0.0011 I	46	240	0.000085 U
PZ-201D	Delineation	3/5/2019	0.0010 U	0.00046 U	0.062	0.00034 U	0.028 I	0.00034 U	5.1	2.7	--	0.00040 U	0.376 U	0.060 I	0.00088 I	0.0097	0.000070 U	0.0020 U	6.74	0.00071 U	1.5 I	76	0.000085 U
GE-1D	Delineation	3/6/2019	0.0010 U	0.00046 U	0.019	0.00034 U	0.021 U	0.00034 U	5.6	22	--	0.0019 I	0.599	0.032 U	0.00049 I	0.0028 I	0.000070 U	0.0020 U	4.87	0.00071 U	2.5 I	40	0.000085 U
PZ-200D	Delineation	4/2/2019	0.0010 U	0.00046 U	0.055	0.00034 U	0.022 I	0.00034 U	5.5	6.9	--	0.0012 I	0.518 U	0.070 I	0.0021	0.0050	0.000070 U	0.0020 U	6.69	0.00071 U	14	96	0.000085 U
Semi-Annual Assessment Monitoring Event 1																							
MW-100	Background	5/31/2019	--	0.00046 U	0.020	0.00034 U	0.021 U	0.00034 U	0.76	5.1	0.0011 U	0.00046 I	1.33	0.032 U	0.00035 U	0.0021 I	0.000070 U	0.0020 U	4.90	0.00071 U	1.4 U	46	0.000085 U
MW-101	Background	5/31/2019	--	0.00046 U	0.0088	0.00034 U	0.021 U	0.00034 U	0.28	5.0	0.0011 U	0.00040 U	0.990	0.032 U	0.00035 U	0.0013 I	0.000070 U	0.0020 U	4.92	0.00071 U	1.4 U	3.4	0.000085 U
MW-107	Background	5/31/2019	--	0.00046 U	0.013	0.00034 U	0.021 U	0.00034 U	0.33	5.4	0.0011 U	0.00040 U	1.24	0.032 U	0.00035 U	0.0017 I	0.000070 U	0.0020 U	4.92	0.00071 U	1.4 U	8.0	0.000085 U
MW-108	Background	5/31/2019	--	0.00046 U	0.010	0.00034 U	0.021 U	0.00034 U	1.1	4.5	0.0011 U	0.00040 U	1.80	0.032 U	0.00035 U	0.0017 I	0.000070 U	0.0020 U	4.84	0.00071 U	3.3 I	26	0.000085 U
MW-306	Background	5/31/2019	--	0.00046 U	0.014	0.00034 U	0.021 U	0.00034 U	0.45	5.4	0.0011 U	0.00040 U	0.759	0.032 U	0.00035 U	0.0015 I	0.000070 U	0.0020 U	4.89	0.00071 U	1.4 U	32	0.000085 U
MW-307	Background	5/31/2019	--	0.00046 U	0.016	0.00034 U	0.021 U	0.00034 U	0.52	3.7	0.0011 U	0.00040 U	0.884	0.032 U	0.00035 U	0.0026 I	0.000070 U	0.0020 U	5.45	0.00071 U	1.4 U	18	0.000085 U
MW-200	Downgradient	6/4/2019	--	0.00048 I	0.040	0.00034 U	11	0.00034 U	170	310	--	0.0013 I	7.70	0.032 U	0.00079 I	0.0012 I	0.00061	--	5.27	0.0044	100	1200	0.000085 U
MW-201	Downgradient	6/4/2019	--	0.00046 U	0.040	0.00034 U	5.2	0.0017 I	54	98	--	0.0014 I	5.89	0.090 I	0.00065 I	0.0044 I	0.0012	--	4.85	0.0020	100	400	0.00011 I
MW-202	Upgradient	6/4/2019	--	0.00046 U	0.025	0.00034 U	0.23	0.00034 U	5.2	14	--	0.00061 I	1.36	0.040 I	0.00035 U	0.0011 U	0.00007 U	--	4.80	0.00071 U	11	80	0.000085 U
MW-203	Upgradient	6/4/2019	--	0.00046 U	0.036	0.00034 U	0.65	0.00034 U	31	16	--	0.0016 I	5.87	0.060 I	0.00035 U	0.0011 U	0.000095 I	--	4.70	0.0015	90	170	0.000085 U
MW-204	Upgradient	6/4/2019	--	0.0029	0.029	0.00045 I	7.1	0.00034 U	66	80	--	0.012	12.5	0.23	0.0016	0.0018 I	0.000070 U	--	4.31	0.0037	310	660	0.00021 I
MW-205	Upgradient	6/4/2019	--	0.00055 I	0.025	0.00034 U	0.98	0.00034 U	25	19	--	0.0015 I	1.91	0.050 I	0.00035 U	0.0011 U	0.000070 U	--	4.96	0.00071 U	97	190	0.000085 U
MW-206	Downgradient	6/4/2019	--	0.001 I	0.048	0.00034 U	19	0.00035 I	760	690	--	0.0018 I	8.36	0.080 I	0.0011 I	0.0011 U	0.000070 U	--	4.69	0.015	280	2300	0.00017 I
PZ-200S	Delineation	6/7/2019	--	0.0046 U	0.041	0.00034 U	14 J3	0.00034 U	160	290	--	0.0034	6.32	0.032 U	0.00056 I	0.0013 I	0.000070 U	--	4.75	0.0025	120	980	0.00031 I
GSA-2S	Delineation	6/5/2019	--	0.0046 U	0.062	0.00034 U	8.6 J3	0.00034 U	78	150	--	0.0010 I	6.14	0.060 I	0.0011 I	0.0019 I	0.000070 U	--	4.29	0.0016	46	540	0.00011 I
PZ-201D	Delineation	6/7/2019	--	0.00046 U	0.058	0.00034 U	0.036 I	0.00034 U	8.4	2.9	--	0.00040 U	0.171 U	0.070 I	0.00046 I	0.023	0.000070 U	--	7.35	0.00071 U	1.4 U	110	0.000085 U
GE-1D	Delineation	6/7/2019	--	0.00046 U	0.018	0.00034 U	0.021 U	0.00034 U	9.9	27	--	0.0016 I	0.637	0.032 U	0.00035 U	0.0046 I	0.000070 U	--	4.98	0.00071 U	3.0 I	130	0.000085 U
PZ-200D	Delineation	6/7/2019	--	0.00046 U	0.031	0.00034 U	0.045 I	0.00034 U	4.7	3.4	--	0.00040 U	0.482	0.080 I	0.00035 U	0.0024 I	0.000070 U	--	6.71	0.00071 U	8.1	130	0.000085 U

TABLE 3: SUMMARY OF 2019 GROUNDWATER LABORATORY ANALYTICAL DATA
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Monitoring Well	Well Designation	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Combined Radium (pCi/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	pH (SU)	Selenium (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Thallium (mg/L)
Semi-Annual Assessment Monitoring Event 2																							
MW-100	Background	11/6/2019	--	0.00020 IV	0.019	0.000090 I	0.017 V	0.000056 U	0.88	5.8	0.00020 U	0.00056 I	1.32	0.032 U	0.00010 I	0.0011	0.000070 U	0.00090 U	4.82	0.00016 U	1.4 U	3.4 U	0.000024 U
MW-101	Background	11/6/2019	--	0.00019 IV	0.0094	0.000047 I	0.016 V	0.000056 U	0.46	6.0	0.00020 U	0.00033 I	0.892	0.032 U	0.000058 U	0.0010	0.000070 U	0.00090 U	4.94	0.00016 U	1.4 U	10	0.000024 U
MW-107	Background	11/6/2019	--	0.00020 IV	0.012	0.000066 I	0.016 V	0.000056 U	0.49	6.1	0.00020 U	0.00048 I	0.509 U	0.032 U	0.000066 I	0.0011	0.000070 U	0.00090 U	4.88	0.00016 U	1.4 U	4.0 I	0.000024 U
MW-108	Background	11/6/2019	--	0.00012 IV	0.0097	0.000034 U	0.022 V	0.000056 U	1.2	5.7	0.000020 U	0.00019 I	2.32	0.032 U	0.000084 I	0.00038 U	0.000070 U	0.00090 U	4.78	0.00034	3.7 I	3.4 U	0.000024 U
MW-306	Background	11/6/2019	--	0.00014 IV	0.013	0.000034 U	0.011 V	0.000056 U	0.55	5.9	0.000020 U	0.00029 I	0.105 U	0.032 U	0.000058 U	0.00063 I	0.000070 U	0.00090 U	5.04	0.00016 U	1.4 U	24	0.000024 U
MW-307	Background	11/6/2019	--	0.00024 IV	0.017	0.000034 U	0.0099 IV	0.000056 U	0.74	4.7	0.00020 U	0.00094 I	0.366 U	0.032 U	0.00020 I	0.0012	0.000070 U	0.00090 U	5.52	0.00016 U	1.4 U	20	0.000024 U
MW-200	Downgradient	11/12/2019	--	0.0011 IV	0.0071	0.00017 U	5.3	0.00061 I	130	280	--	0.00056 U	6.400	0.072 I	0.00069 I	0.0019 U	0.00056	--	4.92	0.0042	100	1000	0.000024 U
MW-201	Downgradient	11/12/2019	--	0.00039 U	0.011	0.00017 U	4.5	0.0020 I	82	190	--	0.00056 U	8.32	0.57	0.00061 I	0.0026 I	0.00048	--	4.67	0.0026	93	670	0.00012 I
MW-202	Upgradient	11/12/2019	--	0.00071 IV	0.051	0.00017 U	0.17	0.00028 U	8.9	26	--	0.00056 U	2.74	0.045 I	0.00041 I	0.0019 U	0.0011	--	4.51	0.00082 U	26	100	0.000028 I
MW-203	Upgradient	11/12/2019	--	0.00077 IV	0.027	0.00017 U	0.58	0.00028 U	26	13	--	0.00056 U	4.89	0.037 I	0.00029 U	0.0019 U	0.000070 U	--	5.06	0.0015	70	160	0.000056 I
MW-204	Upgradient	11/12/2019	--	0.00050 IV	0.0053	0.00049 I	6.7	0.00028 I	62	88	--	0.011	10.7	0.20	0.0019	0.0019 U	0.000070 U	--	4.24	0.0050	320	620	0.00026 I
MW-205	Upgradient	11/12/2019	--	0.0016 V	0.059	0.00017 U	3.9	0.00028 I	49	100	--	0.0027	5.78	0.082 I	0.00078 I	0.0043 I	0.00016 I	--	4.69	0.0061	170	500	0.00017 I
MW-206	Downgradient	11/12/2019	--	0.0022 V	0.008	0.00017 U	14.0	0.00055 I	240	490.0	--	0.00067 I	7.14	0.045 I	0.0010 I	0.0019 U	0.000070 U	--	4.56	0.012	260	1900	0.00019 I
PZ-200S	Delineation	11/15/2019	--	0.0019	0.056	0.00011 I	35	0.00060 I	620	1600	--	0.036	13.6	0.050 IV	0.0037 V	0.00095 I	0.00019 I	--	4.53	0.0076	230	3600	0.00043 I
GSA-2S	Delineation	11/15/2019	--	0.000078 U	0.015	0.000035 I	1.0	0.00028 U	21	27	--	0.00056 I	1.90	0.032 U	0.00046 IV	0.00038 I	0.000070 U	--	4.53	0.0013	22	88	0.000051 I
PZ-201D	Delineation	11/14/2019	--	0.000078 U	0.062	0.000034 U	0.047 V	0.000056 U	6.0	2.7	--	0.00011 U	0.173 U	0.040 IV	0.00017 I	0.011	0.000070 U	--	6.85	0.00016 U	1.4 U	42	0.000024 U
GE-1D	Delineation	11/14/2019	--	0.00029	0.023	0.00012 I	0.0074 I	0.000056 U	4.7	20.0	--	0.0025	1.15	0.032 U	0.0010 IV	0.0037 I	0.000070 U	--	4.82	0.00021 I	3.5 I	120	0.000043 I
PZ-200D	Delineation	11/20/2019	--	0.00020 I	0.031 I	0.000034 U	0.035 V	0.000056 U	4.5	3.7	--	0.00019 I	0.895	0.070 I	0.00029 U	0.0019 U	0.000070 U	--	6.77	0.00016 U	9.6	120	0.000024 U
PZ-203D	Delineation	11/14/2019	--	0.00020 I	0.037	0.000034 U	0.036 V	0.000056 U	7.8	4.3	--	0.00011 U	0.489	0.032 U	0.000058 U	0.018	0.000070 U	--	6.59	0.00016 U	1.6 I	20	0.000024 U

Notes:

1. mg/L indicates milligrams per liter, pCi/L indicates picocuries per liter, SU indicates standard units.
2. TDS indicates Total Dissolved Solids.
3. -- indicates that the constituent was not analyzed during the specified assessment monitoring event.
4. "U" indicates analyte was analyzed but not detected.
5. "V" indicates that the analyte was detected at or above the method detection limit in both the sample and associated method blank and the value of 10 times the blank was equal to or greater than the associated sample value.
6. "I" indicates that the reported value is between laboratory method detection limit and laboratory practical quantitation limit.
7. "J" indicates that the reported value is between laboratory method detection limit and laboratory practical quantitation limit.
8. Data validation was performed on annual assessment monitoring event and semi-annual assessment monitoring event 1. Data validation is ongoing for the semi-annual assessment monitoring event 2. Data validation flags are not included in Table 3. Data validation reports are included in Appendix A.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	2/25/2019	89.47	13.56
MW-101	577158.45	1107724.27	108	2/25/2019	94.79	13.21
MW-107	577201.66	1107442.83	114.71	2/25/2019	100.35	14.36
MW-108	576208.36	1107577.06	83.54	2/25/2019	67.93	15.61
MW-200	581703.17	1108041.01	20.13	2/25/2019	19.06	1.07
MW-201	581138.29	1108637.91	52.12	2/25/2019	48.76	3.36
MW-202	580559.03	1109045.35	55.45	2/25/2019	51.12	4.33
MW-203	580100.37	1108497.51	50.6	2/25/2019	44.73	5.87
MW-204	580325.06	1107978.45	19.47	2/25/2019	13.22	6.25
MW-205	581076.41	1107907.46	20.28	2/25/2019	16.40	3.88
MW-206	581888.48	1108613.37	29.11	2/25/2019	27.48	1.63
MW-306	578417.11	1106200.44	70.56	2/25/2019	54.93	15.63
MW-307	578209.77	1106865.99	104.18	2/25/2019	89.6	14.58
PZ-200S	581853.34	1108016.45	8.31	2/25/2019	7.69	0.62
GSA-2S	582073.8	1108707.19	24	2/25/2019	23.08	0.92
PZ-201D	581161.53	1108641.12	52	2/25/2019	44.50	7.50
GE-1D	581996.86	1108509.35	20.77	2/25/2019	17.21	3.56
PZ-200D	581775.39	1108002.66	12.03	2/25/2019	5.60	6.43
PZ-203D	580127.2	1108145.63	15.44	NI	NI	--

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.
4. NI indicates well not installed at the time of the groundwater assessment event.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	5/30/2019	88.85	14.18
MW-101	577158.45	1107724.27	108	5/30/2019	94.01	13.99
MW-107	577201.66	1107442.83	114.71	5/30/2019	99.72	14.99
MW-108	576208.36	1107577.06	83.54	5/30/2019	67.67	15.87
MW-200	581703.17	1108041.01	20.13	5/30/2019	18.20	1.93
MW-201	581138.29	1108637.91	52.12	5/30/2019	48.13	3.99
MW-202	580559.03	1109045.35	55.45	5/30/2019	50.93	4.52
MW-203	580100.37	1108497.51	50.6	5/30/2019	44.63	5.97
MW-204	580325.06	1107978.45	19.47	5/30/2019	13.32	6.15
MW-205	581076.41	1107907.46	20.28	5/30/2019	16.21	4.07
MW-206	581888.48	1108613.37	29.11	5/30/2019	26.52	2.59
MW-306	578417.11	1106200.44	70.56	5/30/2019	54.86	15.70
MW-307	578209.77	1106865.99	104.18	5/30/2019	89.22	14.96
PZ-200S	581853.34	1108016.45	8.31	5/30/2019	6.79	1.52
GSA-2S	582073.8	1108707.19	24	5/30/2019	22.21	1.79
PZ-201D	581161.53	1108641.12	52	5/30/2019	44.57	7.43
GE-1D	581996.86	1108509.35	20.77	5/30/2019	16.78	3.99
PZ-200D	581775.39	1108002.66	12.03	5/30/2019	5.62	6.41
PZ-203D	580127.2	1108145.63	15.44	NI	NI	--

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.
4. NI indicates well not installed at the time of the groundwater assessment event.

TABLE 4: SUMMARY OF 2019 GROUNDWATER ELEVATIONS
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Monitoring Well	Northing	Easting	Top of Casing Elevation	Date	Depth to Water	Groundwater Elevation
MW-100	578116.11	1107316.00	103.03	10/24/2019	90.66	12.37
MW-101	577158.45	1107724.27	108	10/24/2019	96.6	11.40
MW-107	577201.66	1107442.83	114.71	10/24/2019	102.12	12.59
MW-108	576208.36	1107577.06	83.54	10/24/2019	70.42	13.12
MW-200	581703.17	1108041.01	20.13	10/24/2019	19.31	0.82
MW-201	581138.29	1108637.91	52.12	10/24/2019	49.31	2.81
MW-202	580559.03	1109045.35	55.45	10/24/2019	51.58	3.87
MW-203	580100.37	1108497.51	50.6	10/24/2019	45.49	5.11
MW-204	580325.06	1107978.45	19.47	10/24/2019	14.09	5.38
MW-205	581076.41	1107907.46	20.28	10/24/2019	16.92	3.36
MW-206	581888.48	1108613.37	29.11	10/24/2019	27.77	1.34
MW-306	578417.11	1106200.44	70.56	10/24/2019	56.27	14.29
MW-307	578209.77	1106865.99	104.18	10/24/2019	90.83	13.35
PZ-200S	581853.34	1108016.45	8.31	10/24/2019	7.71	0.60
GSA-2S	582073.8	1108707.19	24	10/24/2019	23.14	0.86
PZ-201D	581161.53	1108641.12	52	10/24/2019	45.09	6.91
GE-1D	581996.86	1108509.35	20.77	10/24/2019	17.47	3.30
PZ-200D	581775.39	1108002.66	12.03	10/24/2019	6.40	5.63
PZ-203D	580127.2	1108145.63	15.44	10/24/2019	8.30	7.14

Notes:

1. Northing and easting are in feet relative to the State Plane Florida North Datum of 1983.
2. Elevations are in feet relative to the North American Vertical Datum of 1988.
3. Depth to water measurements are in feet below top of casing.

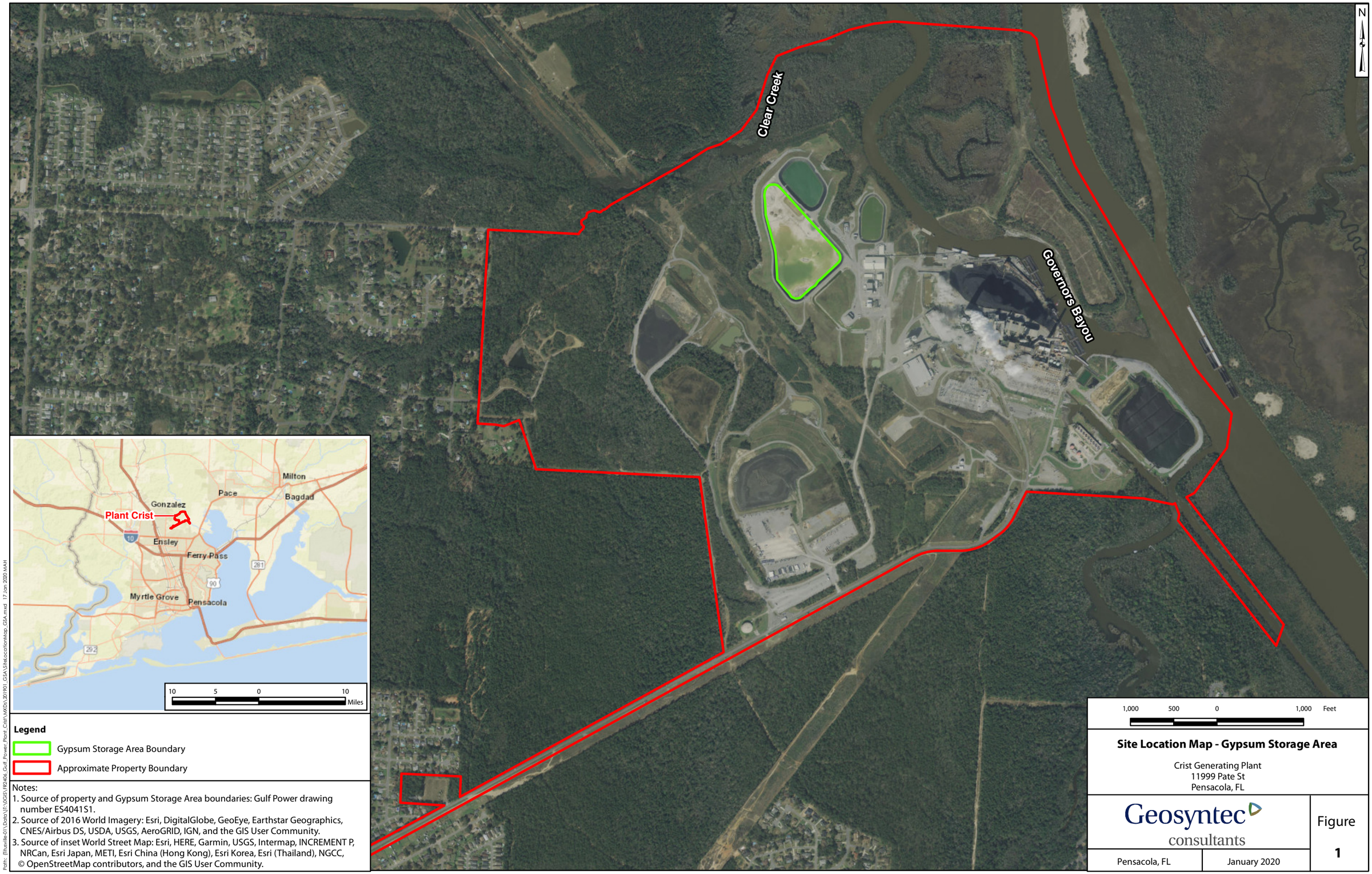
TABLE 5: SUMMARY OF BACKGROUND LIMITS AND GROUNDWATER PROTECTION STANDARDS
Plant Crist - GSA, Gulf Power Company, Pensacola, Florida

Analyte	Units[1]	USEPA MCL or RSL[2]	Statistically Derived UTL from October 2018 data	Statistically Derived UTL from June 2019 data	Groundwater Protection Standard (GWPS)[4, 5]
Antimony	mg/L	0.006	0.003	0.003	0.006
Arsenic	mg/L	0.01	0.001	0.001	0.01
Barium	mg/L	2	0.019	0.019	2
Beryllium	mg/L	0.004	0.003	0.003	0.004
Cadmium	mg/L	0.005	0.003	0.003	0.005
Chromium	mg/L	0.1	0.017	0.006	0.1
Cobalt[3]	mg/L	0.006	0.003	0.003	0.006
Fluoride	mg/L	4	0.120	0.120	4
Lead[3]	mg/L	0.015	0.001	0.001	0.015
Lithium[3]	mg/L	0.04	0.005	0.005	0.04
Mercury	mg/L	0.002	0.0002	0.0002	0.002
Molybdenum[3]	mg/L	0.1	0.015	0.015	0.1
Selenium	mg/L	0.05	0.003	0.003	0.05
Thallium	mg/L	0.002	0.0005	0.0005	0.002
Combined Radium-226/228	pCi/L	5	2.540	2.442	5

Notes:

1. mg/L indicates milligrams per liter; pCi/L indicates picocuries per liter.
2. USEPA: United States Environmental Protection Agency; MCL: Maximum Contaminant Level. RSL: Regional Screening Levels; UTL: Upper Tolerance Limit.
4. The GWPS was established in the CCR Rule Amendment dated July 30, 2018.
5. GWPS selected as the higher of EPA MCL or RSL and Statistically Derived Upper Tolerance Limit.
6. GWPS remains the same for all analytes from 2018 to 2019.

FIGURES



Legend

Gypsum Storage Area Boundary

Approximate Property Boundary

Notes:
1. Source of property and Gypsum Storage Area boundaries: Gulf Power drawing number ES4041S1.
2. Source of 2016 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
3. Source of inset World Street Map: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community.

Site Location Map - Gypsum Storage Area

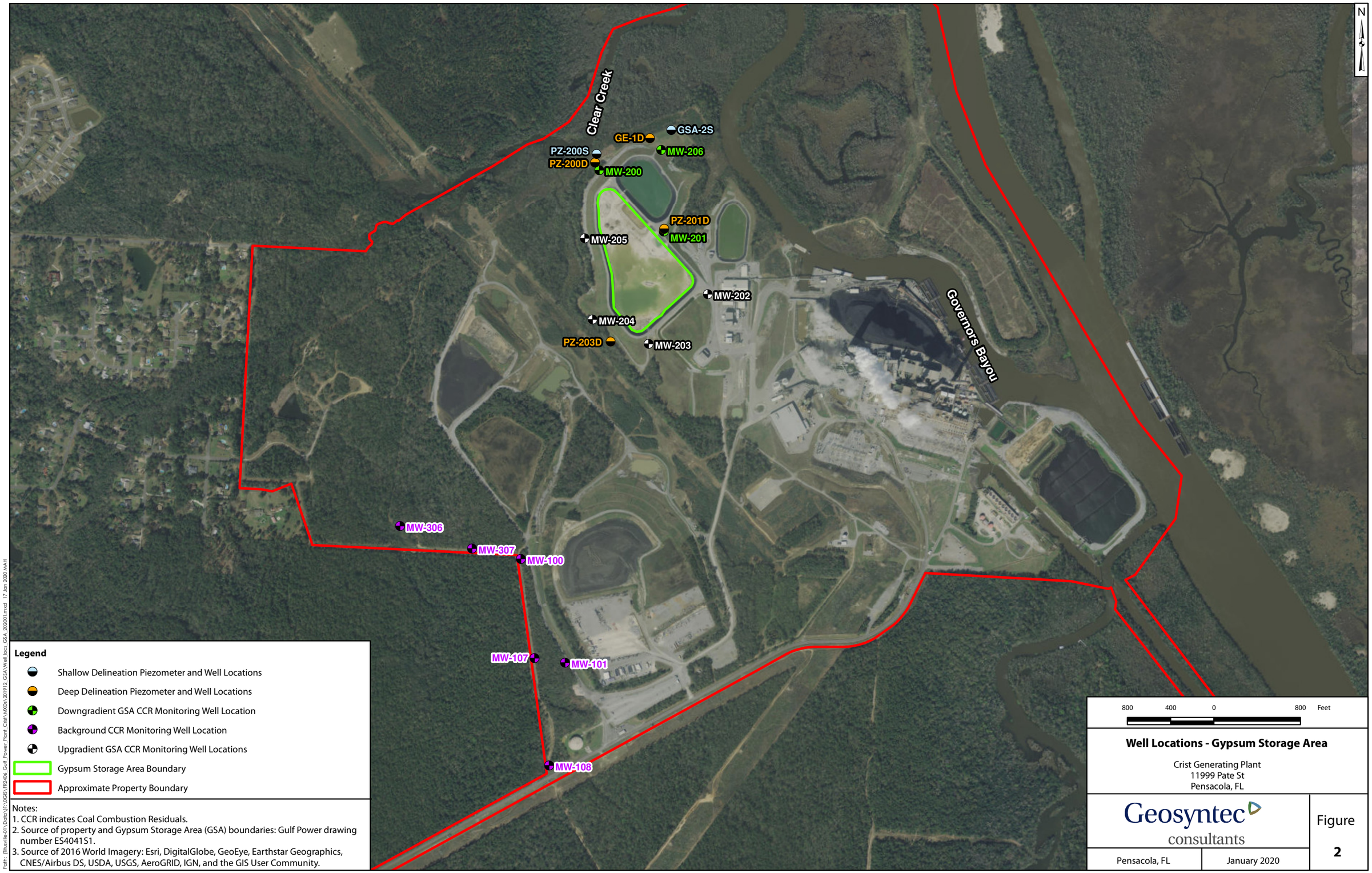
Crist Generating Plant
11999 Pate St
Pensacola, FL

Geosyntec consultants

Figure 1

Pensacola, FL | January 2020

Path: (Titusville-01\Data\JT\0GIS\FR2406_Gulf_Power_Plant_Crist\MXDs\201901_GSA\SiteLocationMap_GSA.mxd 17 Jan 2020 MAH



Legend

- Shallow Delineation Piezometer and Well Locations
- Deep Delineation Piezometer and Well Locations
- Downgradient GSA CCR Monitoring Well Location
- Background CCR Monitoring Well Location
- Upgradient GSA CCR Monitoring Well Locations
- Gypsum Storage Area Boundary
- Approximate Property Boundary

Notes:
1. CCR indicates Coal Combustion Residuals.
2. Source of property and Gypsum Storage Area (GSA) boundaries: Gulf Power drawing number ES4041S1.
3. Source of 2016 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Well Locations - Gypsum Storage Area

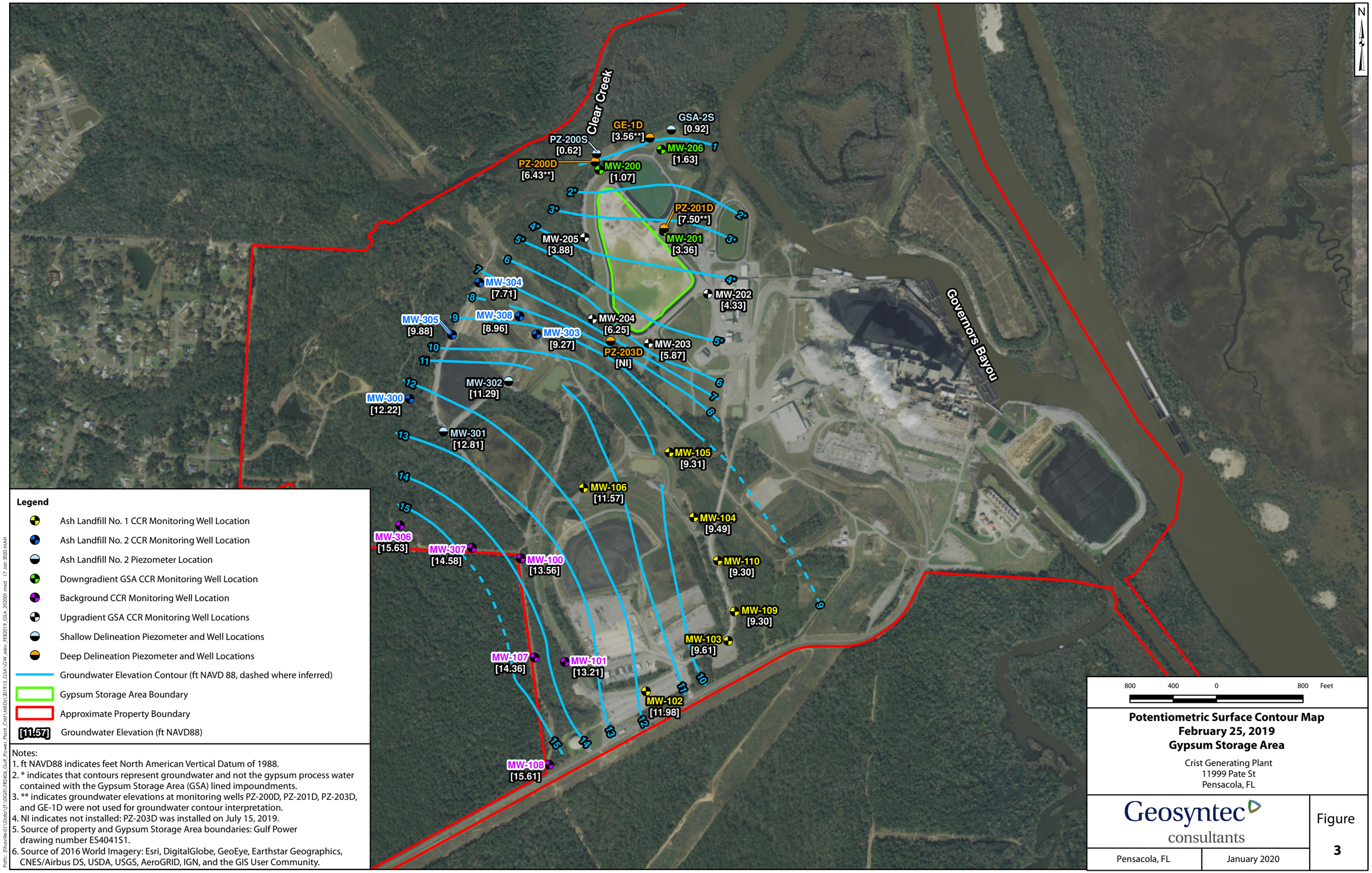
Crist Generating Plant
11999 Pate St
Pensacola, FL

Geosyntec consultants

Pensacola, FL | January 2020

Figure 2

Path: (Titusville-01\Data\IT\0GIS\FR2406_Gulf_Power_Plant_Crist\MXDs\201912_GSA\Well_locs_GSA_202001.mxd 17 Jan 2020 MAH



Legend

- Ash Landfill No. 1 CCR Monitoring Well Location
- Ash Landfill No. 2 CCR Monitoring Well Location
- Ash Landfill No. 2 Piezometer Location
- Downgradient GSA CCR Monitoring Well Location
- Background CCR Monitoring Well Location
- Upgradient GSA CCR Monitoring Well Locations
- Shallow Delineation Piezometer and Well Locations
- Deep Delineation Piezometer and Well Locations
- Groundwater Elevation Contour (ft NAVD 88, dashed where inferred)
- Gypsum Storage Area Boundary
- Approximate Property Boundary
- [11.57] Groundwater Elevation (ft NAVD88)

Notes:
1. ft NAVD88 indicates feet North American Vertical Datum of 1988.
2. * indicates that contours represent groundwater and not the gypsum process water contained with the Gypsum Storage Area (GSA) lined impoundments.
3. ** indicates groundwater elevations at monitoring wells PZ-200D, PZ-201D, PZ-203D, and GE-1D were not used for groundwater contour interpretation.
4. NI indicates not installed: PZ-203D was installed on July 15, 2019.
5. Source of property and Gypsum Storage Area boundaries: Gulf Power drawing number ES4041S1.
6. Source of 2016 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Potentiometric Surface Contour Map
February 25, 2019
Gypsum Storage Area

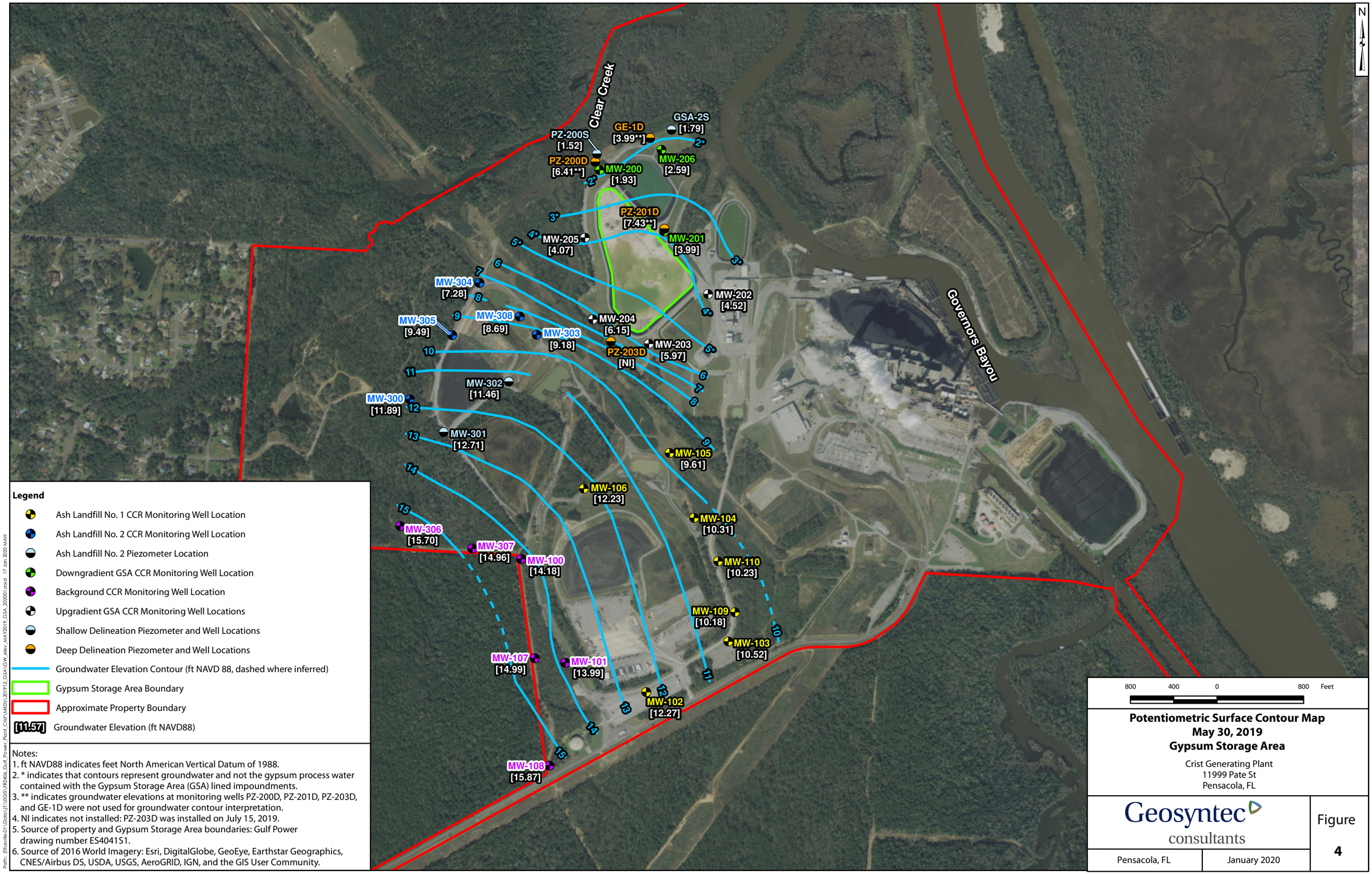
Crist Generating Plant
11999 Pate St
Pensacola, FL

Geosyntec consultants

Pensacola, FL | January 2020

Figure 3

Path: (Titusville-01\Data\IT\0GIS\FR2406_Gulf_Power_Plant_Crist\MXDs\201912_GSA\GW_elev_FEB2019_GSA_202001.mxd 17 Jan 2020 MAH



Legend

- Ash Landfill No. 1 CCR Monitoring Well Location
- Ash Landfill No. 2 CCR Monitoring Well Location
- Ash Landfill No. 2 Piezometer Location
- Downgradient GSA CCR Monitoring Well Location
- Background CCR Monitoring Well Location
- Upgradient GSA CCR Monitoring Well Locations
- Shallow Delineation Piezometer and Well Locations
- Deep Delineation Piezometer and Well Locations
- Groundwater Elevation Contour (ft NAVD 88, dashed where inferred)
- Gypsum Storage Area Boundary
- Approximate Property Boundary
- [11.57] Groundwater Elevation (ft NAVD88)

Notes:
1. ft NAVD88 indicates feet North American Vertical Datum of 1988.
2. * indicates that contours represent groundwater and not the gypsum process water contained with the Gypsum Storage Area (GSA) lined impoundments.
3. ** indicates groundwater elevations at monitoring wells PZ-200D, PZ-201D, PZ-203D, and GE-1D were not used for groundwater contour interpretation.
4. NI indicates not installed: PZ-203D was installed on July 15, 2019.
5. Source of property and Gypsum Storage Area boundaries: Gulf Power drawing number ES4041S1.
6. Source of 2016 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Potentiometric Surface Contour Map
May 30, 2019
Gypsum Storage Area

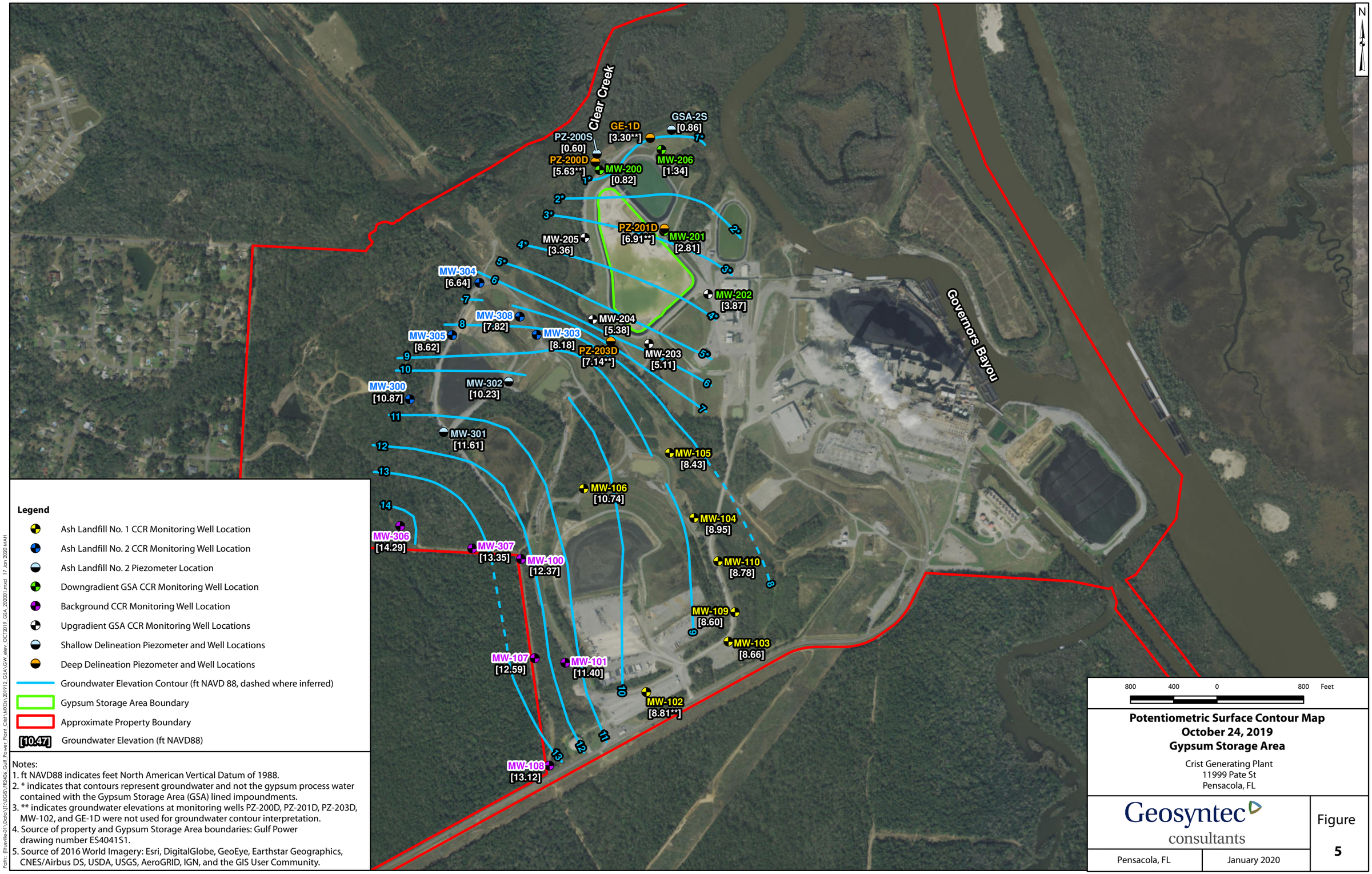
Crist Generating Plant
11999 Pate St
Pensacola, FL

Geosyntec consultants

Pensacola, FL | January 2020

Figure 4

Path: (Titusville-01\Data\JT\0GIS\FR2406_Gulf_Power_Plant_Crist\MXDs\201912_GSA\GW_elev_MAY2019_GSA_202001.mxd 17 Jan 2020 MAH



Notes:
1. ft NAVD88 indicates feet North American Vertical Datum of 1988.
2. * indicates that contours represent groundwater and not the gypsum process water contained with the Gypsum Storage Area (GSA) lined impoundments.
3. ** indicates groundwater elevations at monitoring wells PZ-200D, PZ-201D, PZ-203D, MW-102, and GE-1D were not used for groundwater contour interpretation.
4. Source of property and Gypsum Storage Area boundaries: Gulf Power drawing number ES4041S1.
5. Source of 2016 World Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

Potentiometric Surface Contour Map
October 24, 2019
Gypsum Storage Area

Crist Generating Plant
11999 Pate St
Pensacola, FL

Geosyntec consultants

Pensacola, FL | January 2020

Figure 5

Path: (Titusville-01\Data\IT\0GIS\FR2406_Gulf_Power_Plant_Crist\MXDs\201912_GSA\GW_elev_OCT2019_GSA_202001.mxd 17 Jan 2020 MAH

APPENDIX A

Laboratory Analytical, Field Sampling Reports, and Data Validation Reports

Geosyntec consultants

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Knoxville, TN 37922
PH 865.330.0037
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Memorandum

Date: January 8, 2019

To: Lane Dorman

From: Kristoffer Henderson

CC: J. Caprio

Subject: Stage 2A Data Validations - Level II Data Deliverables – TestAmerica Job IDs 400-160790-1, 400-160790-2, 400-160814-1 Revision 1, 400-160814-2, 400-160850-1 Revision 2, 400-160850-2, 400-160851-1 Revision 1, 400-160851-2 and 400-162132-1

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-five aqueous samples, six field duplicate samples, three equipment blanks and three field blanks, collected 16-19 October 2018 and 13-14 November 2018, as part of the Plant Crist sampling event.

The samples were analyzed at TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E
- Field pH

The samples were analyzed at TestAmerica, St. Louis, Missouri, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combine Radium-226 and Radium-228 by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. The qualified data should be used within the limitations of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
400-160790-1	MW-100
400-160790-2	MW-107
400-160790-3	MW-108
400-160790-4	MW-306
400-160790-5	MW-307
400-160790-6	DUP-01
400-160814-1	MW-300
400-160814-2	MW-303
400-160814-3	MW-304
400-160814-4	MW-305
400-160814-5	MW-308
400-160814-6	DUP-02
400-160814-7	EB-01
400-160814-8	FB-01
400-160850-1	MW-102
400-160850-2	MW-103
400-160850-3	MW-104
400-160850-4	MW-105

Laboratory ID	Client ID
400-160850-5	MW-106
400-160850-6	MW-109
400-160850-7	MW-110
400-160850-8	MW-101
400-160850-9	DUP-03
400-160850-10	FB-02
400-160850-11	EB-02
400-160851-1	DUP-04
400-160851-2	MW-204
400-160851-3	MW-205
400-160851-4	MW-206
400-162132-1	MW-200
400-162132-2	MW-201
400-162132-3	MW-202
400-162132-4	MW-203
400-162132-5	DUP-05
400-162132-6	DUP-06
400-162132-7	EB--03

400-162132-8	FB-03

The samples were received within 0-6°C. No sample preservation issues were noted by the laboratory.

Laboratory reports 400-160814-1 and 400-160850-1 were revised on December 5, 2018 and laboratory report 400-160851-1 was revised on November 16, 2018 to change the reported metals list. The revised reports were identified as 400-160814-1 Revision 1, 400-160850-1 Revision 1 and 400-160851-1 Revision 1, respectively. Laboratory report 400-160850-1 was revised a second time on January 19, 2018 to report antimony for sample MW-101. The revised report was identified as 400-160850-1 Revision 2.

1.0 METALS

The samples were analyzed by EPA methods 3005A/6020 (Mercury evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
⊗ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the

total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The recovery of beryllium in a bracketing continuing calibration verification (CCV) in batch 421080 was high and outside the laboratory specified acceptance criteria. Since beryllium was not detected in the associated samples, no qualifications were applied to the data.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 416486, 416929, 417030, 417485 and 420865). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exception.

Lead was detected at an estimated concentration greater than the MDL and less than the reporting limit (RL) in the method blank in batch 416486. Since lead was not detected in the associated samples, no qualifications were applied to the data.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample MW-200. The recovery and relative percent difference (RPD) results were within the laboratory and SOP specified acceptance criteria, with the following exceptions.

The MS/MSD recoveries of boron and calcium were low and outside the laboratory specified acceptance criteria. Based on the differences between the spike concentrations and sample concentrations and professional and technical judgment, no qualifications were applied to the data.

Four batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria, with the following exception.

The recovery of beryllium in the LCS in batch 420865 was high and outside the laboratory specified acceptance criteria. Since beryllium was not detected in the associated samples, no qualifications were applied to the data.

1.6 Equipment Blank

Three equipment blanks were collected with the sample sets, EB-01, EB-02 and EB-03. Metals were not detected in the equipment blanks above the MDLs, with the following exception.

Boron was detected at an estimated concentration greater than the MDL and less than the RL in EB-01. Therefore, the boron concentrations in the associated samples less than five times the equipment blank concentration were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Laboratory Result (mg/L)	Validation Qualifier*	Reason Code**
MW-300	Boron	0.022	I	0.022	U*	BE
MW-305	Boron	0.074	NA	0.074	U*	BE
DUP-02	Boron	0.075	NA	0.075	U*	BE
MW-101	Boron	0.081	NA	0.081	U*	BE
MW-106	Boron	0.067	NA	0.067	U*	BE
MW-109	Boron	0.15	NA	0.15	U*	BE

mg/L-milligrams per liter
I-estimated concentration greater than the MDL and less than the RL
NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

Three field blanks were collected with the sample sets, FB-01, FB-02 and FB-03. Metals were not detected in the field blanks above the MDLs.

Boron was detected at an estimated concentration greater than the MDL and less than the RL in FB-01 and was detected above the RL in FB-02 (0.080 mg/L). Therefore, the boron

concentrations in the associated samples less than five times the field blank concentrations were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Laboratory Result (mg/L)	Validation Qualifier	Reason Code
MW-300	Boron	0.022	I	0.022	U*	BF
MW-305	Boron	0.074	NA	0.074	U*	BF
DUP-02	Boron	0.075	NA	0.075	U*	BF
MW-102	Boron	0.34	NA	0.34	U*	BF
MW-103	Boron	0.25	NA	0.25	U*	BF
MW-106	Boron	0.067	NA	0.067	U*	BF
MW-109	Boron	0.15	NA	0.15	U*	BF
MW-101	Boron	0.081	NA	0.081	U*	BF

mg/L-milligrams per liter
I-estimated concentration greater than the MDL and less than the RL
NA-not applicable

1.8 Field Duplicate

Six field duplicate samples were collected with the sample sets, DUP-01, DUP-02, DUP-03, DUP-04, DUP-05 and DUP-06. Acceptable precision (RPD $\leq$ 20% or difference < RL) was demonstrated between the field duplicates and the original samples MW-107, MW-305, MW-110, MW-205, MW-203 and MW-201, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverables (EDDs) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues

were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six method blanks were reported (batches 417370, 417418, 417773, 417787, 417950 and 420772). Mercury was not detected in the method blanks above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six batch MS/MSD pairs were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

Three equipment blanks were collected with the sample sets, EB-01, EB-02 and EB-03. Mercury was not detected in the equipment blanks above the MDL.

2.7 Field Blank

Three field blanks were collected with the sample sets, FB-01, FB-02 and FB-03. Mercury was not detected in the field blanks above the MDL.

2.8 Field Duplicate

Six field duplicate samples were collected with the sample sets, DUP-01, DUP-02, DUP-03, DUP-04, DUP-05 and DUP-06. Acceptable precision (RPD $\leq$ 30% or difference < RL) was demonstrated between the field duplicates and the original samples MW-107, MW-305, MW-110, MW-205, MW-203 and MW-201, respectively.

2.9 Sensitivity

The samples were reported to the MDLs. No elevated nondetect results were reported.

2.10 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E, TDS by Standard Method 2540C and field pH.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues

were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the chloride, fluoride and sulfate analyses of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for pH analysis of a water sample is 15 minutes from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 416491, 416766, 416940, 417012, 417028 and 420194, chloride batches 416758, 417463, 417589, 417638, 417973, 421020 and 421040, sulfate batches 416792, 417344, 417368, 417786, 418151, 420988 and 421014, fluoride batches 416990, 417309, 417361, 417824 and 421030). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride using samples MW-100, MW-300, MW-101 and MW-201, sulfate using samples MW-100, MW-308 and MW-202 and fluoride using sample MW-106. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of sulfate in the MS/MSD pair using sample MW-308 were low and outside the laboratory specified acceptance criteria. Based on the difference between the spiked concentration and sample concentration and professional and technical judgment, no qualifications were applied to the data.

The recoveries of sulfate in the MS/MSD pair using sample MW-202 were low and outside the laboratory specified acceptance criteria. Therefore, the sulfate concentration was J qualified as estimated and the nondetect sulfate results were UJ qualified as estimated less than the MDL in the associated samples.

Batch MS/MSD pairs were also reported for fluoride, sulfate and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Laboratory Result (mg/L)	Validation Qualifier	Reason Code
MW-202	Sulfate	21	NA	21	J	M-
DUP-06	Sulfate	110	NA	110	J	M-
EB--03	Sulfate	1.4	U	1.4	UJ	M-
FB-03	Sulfate	1.4	U	1.4	UJ	M-

mg/L-milligrams per liter
U-not detected at or above the MDL
NA-not applicable

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Sample set specific laboratory duplicates were reported for TDS using samples MW-108, MW-308, MW-105 and DUP-03 and fluoride using samples MW-305, MW-206 and DUP-06. The RPD results were within the laboratory and SOP specified acceptance criteria, with the following exception.

The RPD of fluoride in the laboratory duplicate using sample MW-206 was high and outside the laboratory specified acceptance criteria. Since the RPD was within the SOP specified acceptance criteria, no qualifications were applied to the data, based on professional and technical judgment.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

Three equipment blanks were collected with the sample sets, EB-01, EB-02 and EB-03. Metals were not detected in the equipment blanks above the MDLs. The wet chemistry parameters were not detected in the equipment blanks above the MDLs.

3.8 Field Blank

Three field blanks were collected with the sample sets, FB-01, FB-02 and FB-03. The wet chemistry parameters were not detected in the field blanks above the MDLs.

3.9 Field Duplicate

Six field duplicate samples were collected with the sample sets, DUP-01, DUP-02, DUP-03, DUP-04, DUP-05 and DUP-06. Acceptable precision (RPD $\leq$ 30% or difference < RL) was demonstrated between the field duplicates and the original samples MW-107, MW-305, MW-110, MW-205, MW-203 and MW-201, respectively.

3.10 Sensitivity

The samples were reported to the MDLs. No elevated nondetect results were reported.

3.11 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

4.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined Radium-226 and Radium-228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
⊗ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Carriers
⊗ Equipment Blank
⊗ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

4.1 Overall Assessment

The radiochemistry data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

4.2 Holding Times

The holding time for the radium-226 and radium-228 analyses of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported for the radium-226 data (batches 396361, 396709, 397076 and 396907). Four method blanks were reported for the radium-228 data (batches 396383, 396733, 397125 and 396917). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exceptions.

Radium-226 was detected above the MDC in the method blanks in batches 396361, 397076 and 396907. Therefore, the radium-226 concentrations greater than the MDC and with a normalized absolute difference (NAD) less than 2.58 were U* qualified as not detected at the reported concentration in the associated samples.

No qualifications were applied to the combined radium 226 + 228 results less than the MDC. The combined radium 226 + 228 results greater than the MDC were qualified as follows.

- If both the radium 226 and radium 228 were U* qualified the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was less than the MDC, the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was greater than the MDC, the combined radium 226 + 228 result was J qualified as estimated.

See qualifications in Attachment 3 at the end of this report.

4.4 Matrix Spike/Matrix Spike Duplicate

Batch MS/MSD pairs were reported for radium-226 and radium-228.

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and two LCS/LCS duplicate (LCSD) pairs were reported for radium-226. One LCS and two LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria.

4.6 Laboratory Duplicate

Three batch laboratory duplicates were also reported for combined radium-226 + radium-228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

4.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

4.8 Equipment Blank

Three equipment blanks were collected with the sample sets, EB-01, EB-02 and EB-03. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs, with the following exception.

Radium-226 was detected above the MDC in EB-02. Therefore, the radium-226 concentration greater than the MDC and with a NAD less than 2.58 was U* qualified as not detected at the reported concentration in the associated sample.

No qualifications were applied to the combined radium 226 + 228 results less than the MDC. The combined radium 226 + 228 results greater than the MDC were qualified as follows.

- If both the radium 226 and radium 228 were U* qualified the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was less than the MDC, the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was greater than the MDC, the combined radium 226 + 228 result was J qualified as estimated.

See qualifications in Attachment 3 at the end of this report.

4.9 Field Blank

Three equipment blanks were collected with the sample sets, FB-01, FB-02 and FB-03. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exceptions.

Radium-226 and Radium-228 were detected above the MDCs in FB-01. Therefore, the radium-226 concentration greater than the MDC and with a NAD less than 2.58 was U* qualified as not detected at the reported concentration in the associated sample.

No qualifications were applied to the combined radium 226 + 228 results less than the MDC. The combined radium 226 + 228 results greater than the MDC were qualified as follows.

- If both the radium 226 and radium 228 were U* qualified the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was less than the MDC, the combined radium 226 + 228 result was U* qualified as not detected at the reported concentration.

- If either radium 226 or radium 228 was U* qualified and the other component of radium 226 + 228 was greater than the MDC, the combined radium 226 + 228 result was J qualified as estimated.

See qualifications in Attachment 3 at the end of this report.

4.10 Field Duplicate

Four field duplicate samples were collected with the sample sets and reported for the radiochemistry parameters, DUP-01, DUP-02, DUP-03, and DUP-04. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples MW-107, MW-305, MW-110 and MW-205, respectively.

4.11 Sensitivity

The samples were reported to the MDCs. No elevated nondetect results were reported.

4.12 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No other discrepancies were identified between the level II reports and the EDDs.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

ATTACHMENT 3
RADIOCHEMISTRY BLANK QUALIFICATIONS

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Laboratory Result (pCi/L)	Validation Qualifier	Reason Code
MW-100	Radium-226	0.564	NA	0.564	U*	BE BF
MW-100	Radium-228	1.58	NA	1.58	U*	BF
MW-100	Combined Radium 226 + 228	2.14	NA	2.14	U*	BE BF
MW-107	Radium-226	0.308	NA	0.308	U*	BL BE BF
MW-107	Radium-228	0.767	NA	0.767	U*	BF
MW-107	Combined Radium 226 + 228	1.07	NA	1.07	U*	BL BE BF
MW-108	Radium-226	0.510	NA	0.510	U*	BE BF
MW-108	Radium-228	1.69	NA	1.69	U*	BF
MW-108	Combined Radium 226 + 228	2.20	NA	2.20	U*	BE BF
MW-306	Radium-226	0.394	NA	0.394	U*	BL BE BF
MW-306	Radium-228	0.800	NA	0.800	U*	BF
MW-306	Combined Radium 226 + 228	1.19	NA	1.19	U*	BL BE BF
MW-307	Radium-226	0.331	NA	0.331	U*	BL BE BF
MW-307	Radium-228	0.549	NA	0.549	U*	BF
MW-307	Combined Radium 226 + 228	0.880	NA	0.880	U*	BL BE BF
DUP-01	Radium-226	0.432	NA	0.432	U*	BL BE BF
DUP-01	Radium-228	1.10	NA	1.10	U*	BF
DUP-01	Combined Radium 226 + 228	1.53	NA	1.53	U*	BL BE BF
MW-300	Radium-226	0.764	NA	0.764	U*	BF
MW-300	Combined Radium 226 + 228	5.75	NA	5.75	J	BF
MW-304	Radium-228	1.84	NA	1.84	U*	BF
MW-304	Combined Radium 226 + 228	3.15	NA	3.15	J	BF
MW-305	Radium-226	0.937	NA	0.937	U*	BF
MW-305	Combined Radium 226 + 228	1.24	NA	1.24	U*	BF
MW-308	Radium-226	0.748	NA	0.748	U*	BE BF
MW-308	Radium-228	1.95	NA	1.95	U*	BF
MW-308	Combined Radium 226 + 228	2.70	NA	2.70	U*	BE BF
DUP-02	Radium-226	0.729	NA	0.729	U*	BE BF
DUP-02	Radium-228	0.724	NA	0.724	U*	BF
DUP-02	Combined Radium 226 + 228	1.45	NA	1.45	U*	BE BF
MW-102	Radium-226	0.519	NA	0.519	U*	BL BE BF
MW-102	Radium-228	0.483	NA	0.483	U*	BF
MW-102	Combined Radium 226 + 228	1.00	NA	1.00	U*	BL BE BF
MW-105	Radium-226	1.13	NA	1.13	U*	BL BF
MW-105	Radium-228	1.76	NA	1.76	U*	BF
MW-105	Combined Radium 226 + 228	2.89	NA	2.89	U*	BL BF
MW-106	Radium-226	0.305	NA	0.305	U*	BL BE BF

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Laboratory Result (pCi/L)	Validation Qualifier	Reason Code
MW-106	Radium-228	0.741	NA	0.741	U*	BF
MW-106	Combined Radium 226 + 228	1.05	NA	1.05	U*	BL BE BF
MW-109	Radium-226	0.886	NA	0.886	U*	BL BF
MW-109	Radium-228	0.882	NA	0.882	U*	BF
MW-109	Combined Radium 226 + 228	1.77	NA	1.77	U*	BL BF
MW-101	Radium-226	0.602	NA	0.602	U*	BL BE BF
MW-101	Combined Radium 226 + 228	0.944	NA	0.944	U*	BL BE BF
EB-02	Radium-226	0.203	NA	0.203	U*	BL
DUP-04	Radium-228	1.63	NA	1.63	U*	BF
DUP-04	Combined Radium 226 + 228	4.17	NA	4.17	J	BF
MW-205	Radium-228	1.76	NA	1.76	U*	BF
MW-205	Combined Radium 226 + 228	3.90	NA	3.90	J	BF

pCi/L- picocuries per liter
NA- not applicable

Product Name: Low-Flow System

Date: 2019-02-27 11:17:24

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	113.8 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	89.30 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:04:31	300.02	24.87	4.72	34.13	0.94	89.35	7.51	202.21
Last 5	11:09:31	600.02	24.83	4.74	34.27	0.80	89.35	7.56	203.61
Last 5	11:14:31	900.02	24.82	4.75	34.30	0.67	89.35	7.56	205.45
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	0.02	0.15			0.05	1.40
Variance 2			-0.01	0.01	0.03			0.00	1.84

Notes

Sample time @ 1120. Sunny 72.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 12:28:54

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	113.1 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	94.41 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:07:24	600.02	23.85	4.81	22.22	0.85	94.45	8.66	218.63
Last 5	12:12:24	900.02	23.77	4.82	22.26	0.78	94.45	8.64	211.63
Last 5	12:17:24	1200.02	23.73	4.82	22.26	0.70	94.45	8.64	205.37
Last 5	12:22:24	1500.02	23.75	4.84	22.28	0.66	94.45	8.66	199.43
Last 5	12:27:24	1800.02	23.74	4.84	22.22	0.67	94.45	8.62	195.67
Variance 0			-0.05	0.00	0.00			0.00	-6.26
Variance 1			0.02	0.02	0.02			0.01	-5.94
Variance 2			-0.00	-0.00	-0.06			-0.04	-3.76

Notes

Sample time @ 1230. Sunny 70.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 10:13:17

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	125 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	118.7 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123.7 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	100.17 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:00:17	300.06	23.47	4.81	23.26	1.67	100.20	8.57	201.27
Last 5	10:05:17	600.03	23.65	4.80	23.41	1.24	100.20	8.52	198.05
Last 5	10:10:17	900.02	23.56	4.78	23.63	0.98	100.20	8.54	196.59
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.18	-0.02	0.16			-0.05	-3.21
Variance 2			-0.10	-0.02	0.22			0.02	-1.46

Notes

Sample time @ 1015. PC 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 09:16:05

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	105 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	92.9 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	97.9 in	Total System Volume	0.6886594 L
Well Total Depth	97.9 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.08 in
Depth to Water	67.72 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:52:39	1200.02	23.30	4.66	30.68	1.58	67.80	8.12	191.73
Last 5	08:57:39	1500.02	23.28	4.68	30.15	1.17	67.80	8.16	195.59
Last 5	09:02:39	1800.02	23.52	4.70	29.78	0.95	67.80	8.09	195.52
Last 5	09:07:39	2100.02	23.54	4.71	29.58	0.82	67.80	8.10	195.30
Last 5	09:12:39	2400.02	23.61	4.71	29.47	0.76	67.80	8.10	194.44
Variance 0			0.24	0.03	-0.37			-0.07	-0.07
Variance 1			0.02	0.01	-0.20			0.01	-0.22
Variance 2			0.07	0.00	-0.11			-0.00	-0.86

Notes

Sample time @ 0915. Cloudy 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 10:01:50

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Background	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	95 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	54.88 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:37:25	1500.03	19.97	4.86	36.29	3.27	54.90	8.45	133.10
Last 5	09:42:25	1800.02	19.94	4.87	36.28	2.55	54.90	8.45	127.49
Last 5	09:47:25	2100.02	19.99	4.87	36.32	2.31	54.90	8.45	122.92
Last 5	09:52:25	2400.02	19.98	4.88	36.22	2.09	54.90	8.44	118.88
Last 5	09:57:25	2700.02	20.03	4.87	36.31	1.79	54.90	8.45	115.46
Variance 0			0.04	0.01	0.04			-0.00	-4.57
Variance 1			-0.00	0.00	-0.09			-0.01	-4.05
Variance 2			0.05	-0.00	0.08			0.01	-3.41

Notes

Sample@1001,cloudy 66

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 11:15:34

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Background	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	125 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	89.48 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:51:01	600.02	20.77	5.50	33.17	2.22	89.50	0.31	48.89
Last 5	10:56:01	900.03	20.90	5.45	33.48	2.56	89.50	0.25	58.61
Last 5	11:01:01	1200.02	21.01	5.42	33.79	3.48	89.50	0.22	65.22
Last 5	11:06:01	1500.02	21.03	5.40	33.99	3.55	89.50	0.21	69.32
Last 5	11:11:01	1800.03	21.05	5.40	34.03	3.56	89.50	0.19	70.68
Variance 0			0.11	-0.03	0.31			-0.03	6.61
Variance 1			0.02	-0.02	0.20			-0.02	4.10
Variance 2			0.02	-0.00	0.04			-0.01	1.36

Notes

Sample@1115, partly cloudy 70

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-28 10:02:39

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	28.5 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	19.10 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:45:51	300.03	23.24	5.03	1744.78	1.71	19.12	1.08	170.82
Last 5	09:50:51	600.02	23.30	5.00	1803.86	1.10	19.12	0.92	166.11
Last 5	09:55:51	900.02	23.43	4.98	1815.04	0.93	19.12	0.83	163.25
Last 5	10:00:51	1200.02	23.48	4.97	1785.39	0.81	19.12	0.77	161.18
Last 5									
Variance 0			0.06	-0.03	59.08			-0.15	-4.71
Variance 1			0.12	-0.02	11.18			-0.09	-2.86
Variance 2			0.05	-0.01	-29.65			-0.07	-2.07

Notes

Sample time @ 1005. Rainy 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 09:30:27

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	54.6 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	59.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	48.80 ft	Total Volume Pumped	26 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:07:51	2700.02	23.25	4.69	418.13	0.71	48.82	0.47	142.58
Last 5	09:12:51	3000.02	23.43	4.69	421.77	0.68	48.82	0.47	141.78
Last 5	09:17:55	3304.02	23.21	4.70	416.63	0.52	48.82	0.46	141.97
Last 5	09:22:55	3604.02	23.13	4.70	416.27	0.46	48.82	0.46	141.64
Last 5	09:27:55	3904.02	23.21	4.71	415.47	0.40	48.82	0.46	141.27
Variance 0			-0.22	0.01	-5.15			-0.00	0.20
Variance 1			-0.07	-0.00	-0.35			0.00	-0.33
Variance 2			0.08	0.01	-0.80			-0.00	-0.37

Notes

Sample time @ 0930. Sunny 40. Dup-05 @ 0830.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 11:17:11

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	54.8 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	59.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	51.33 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:51:44	1500.02	23.48	4.95	80.20	2.14	51.35	2.44	211.65
Last 5	10:56:44	1800.02	23.47	4.96	78.03	1.74	51.35	2.53	219.20
Last 5	11:01:44	2100.02	23.58	4.95	78.93	1.32	51.35	2.49	232.41
Last 5	11:06:44	2400.02	23.67	4.93	77.70	0.98	51.35	2.51	240.07
Last 5	11:11:44	2700.02	23.68	4.93	79.24	0.78	51.35	2.48	239.27
Variance 0			0.11	-0.00	0.90			-0.04	13.21
Variance 1			0.09	-0.02	-1.23			0.02	7.66
Variance 2			0.01	-0.01	1.54			-0.03	-0.80

Notes

Sample time@ 1120. Sunny 48.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-01 10:29:45

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	58.0 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	63.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	44.85 ft	Total Volume Pumped	68 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:03:44	9015.03	24.74	4.45	277.10	4.50	44.90	0.49	140.45
Last 5	10:08:44	9315.03	24.65	4.45	277.82	4.56	44.90	0.49	140.45
Last 5	10:13:44	9615.03	24.67	4.45	277.48	4.67	44.90	0.49	140.90
Last 5	10:18:44	9915.03	24.72	4.46	277.80	4.75	44.90	0.49	141.56
Last 5	10:23:44	10215.03	24.60	4.46	278.52	4.82	44.90	0.49	140.92
Variance 0			0.02	0.00	-0.34			-0.00	0.46
Variance 1			0.06	0.01	0.32			0.00	0.66
Variance 2			-0.12	0.00	0.72			0.00	-0.65

Notes

Sample time @ 1035. Cloudy 65. FB-02 @ 1037.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-28 13:49:58

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14.4 in
Depth to Water	13.20 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:26:57	300.03	23.97	4.34	904.47	0.71	24.40	0.35	204.21
Last 5	13:31:57	600.03	24.47	4.32	908.99	0.56	24.40	0.29	198.24
Last 5	13:36:57	900.03	24.06	4.32	901.00	0.52	24.40	0.23	193.47
Last 5	13:41:57	1200.03	24.06	4.31	907.59	0.50	24.40	0.19	189.46
Last 5	13:46:57	1500.03	24.10	4.31	906.91	0.46	24.40	0.19	185.83
Variance 0			-0.41	-0.00	-7.99			-0.06	-4.77
Variance 1			0.00	-0.01	6.58			-0.04	-4.02
Variance 2			0.04	-0.00	-0.67			-0.01	-3.63

Notes

Sample time @ 1355. PC 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-28 09:04:22

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.8 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	32.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	16.42 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:52:21	300.02	22.39	5.01	323.39	0.30	16.43	3.68	159.28
Last 5	08:57:21	600.02	22.44	5.02	313.24	0.25	16.43	3.68	154.49
Last 5	09:02:21	900.02	22.44	5.02	314.00	0.24	16.43	3.65	151.41
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.05	0.01	-10.14			0.00	-4.79
Variance 2			0.00	-0.00	0.75			-0.03	-3.08

Notes

Sample time @ 0905. Cloudy 65. Dup-02 @ 0805.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-28 10:51:06

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	33.0 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	27.55 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:39:32	300.03	25.19	4.43	2440.31	0.55	27.60	0.12	176.71
Last 5	10:44:32	600.02	25.29	4.41	2497.35	0.52	27.60	0.10	174.80
Last 5	10:49:32	900.03	25.28	4.42	2467.80	0.50	27.60	0.10	172.62
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.10	-0.02	57.04			-0.01	-1.91
Variance 2			-0.01	0.01	-29.54			0.00	-2.18

Notes

Sample time @ 1055. Cloudy 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 13:15:33

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist CCR Delineation	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	195 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	185.7 ft

Well Information:		Pumping Information:	
Well ID	PZ-201D	Final Pumping Rate	240 mL/min
Well diameter	2 in	Total System Volume	1.090367 L
Well Total Depth	188.2 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	2 in
Depth to Water	44.47 ft	Total Volume Pumped	68.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:51:52	15907.02	20.17	6.75	87.81	10.20	46.45	0.10	-15.19
Last 5	12:56:52	16207.02	19.77	6.75	87.25	9.93	46.46	0.09	-13.99
Last 5	13:01:52	16507.02	20.13	6.75	86.99	9.73	46.47	0.09	-15.27
Last 5	13:06:52	16807.02	20.03	6.74	87.30	9.69	46.47	0.10	-16.82
Last 5	13:11:52	17107.02	20.05	6.74	86.95	9.58	46.47	0.09	-18.49
Variance 0			0.36	-0.00	-0.26			0.00	-1.28
Variance 1			-0.10	-0.01	0.30			0.01	-1.54
Variance 2			0.02	-0.00	-0.35			-0.00	-1.67

Notes

Sample time 1312. Sunny 52.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 16:21:56

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	peristaltic
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist CCR Delineation	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	31.0 ft

Well Information:		Pumping Information:	
Well ID	PZ-200S	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3851467 L
Well Total Depth	33.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.02 in
Depth to Water	7.57 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:46:53	600.02	19.64	5.29	1705.89	6.38	7.60	0.32	133.28
Last 5	15:51:53	900.02	19.69	5.31	1741.56	4.60	7.60	0.30	133.61
Last 5	15:56:53	1200.02	19.84	5.32	1714.79	2.91	7.60	0.29	134.45
Last 5	16:01:53	1500.02	19.83	5.32	1749.32	2.62	7.60	0.28	136.02
Last 5	16:06:53	1800.02	19.75	5.31	1751.65	1.86	7.60	0.26	137.73
Variance 0			0.15	0.02	-26.78			-0.01	0.83
Variance 1			-0.00	-0.00	34.54			-0.01	1.58
Variance 2			-0.09	-0.01	2.32			-0.02	1.70

Notes

Sample time 1610. Dup-06 fake time 1710. Sunny 54.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 12:07:26

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist GSA	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	49.55 ft

Well Information:		Pumping Information:	
Well ID	GSA-2s	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	54.55 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.05 in
Depth to Water	22.95 ft	Total Volume Pumped	30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:45:37	3304.03	23.59	4.48	355.55	0.38	23.00	1.31	108.62
Last 5	11:50:37	3604.03	23.53	4.64	342.59	0.35	23.00	1.56	108.81
Last 5	11:55:37	3904.03	23.74	4.49	356.36	0.40	23.00	1.38	107.62
Last 5	12:00:37	4204.03	23.61	4.49	357.48	0.45	23.00	1.32	107.00
Last 5	12:05:37	4504.03	23.61	4.48	357.78	0.42	23.00	1.29	106.70
Variance 0			0.21	-0.16	13.77			-0.18	-1.19
Variance 1			-0.13	-0.00	1.12			-0.06	-0.62
Variance 2			0.00	-0.00	0.30			-0.02	-0.31

Notes

Sample time @ 4500. Sunny 50.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 14:34:33

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist CCR Delineation	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	107 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	100.1 ft

Well Information:		Pumping Information:	
Well ID	GE-1D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6975863 L
Well Total Depth	102.6 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	1.49 in
Depth to Water	16.90 ft	Total Volume Pumped	128 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:03:30	18005.02	21.30	4.83	94.14	13.50	18.39	3.72	289.65
Last 5	14:08:30	18305.02	21.33	4.91	105.85	12.30	18.39	3.65	289.39
Last 5	14:13:32	18607.02	21.33	4.87	98.63	10.50	18.39	3.69	298.57
Last 5	14:18:32	18907.02	21.20	4.84	95.52	10.10	18.39	3.69	301.94
Last 5	14:23:32	19207.02	21.22	4.87	99.54	9.75	18.39	3.71	298.09
Variance 0			0.01	-0.04	-7.21			0.04	9.18
Variance 1			-0.14	-0.03	-3.12			-0.00	3.38
Variance 2			0.03	0.03	4.02			0.02	-3.85

Notes

Sample time 1432. Dup-07 fake time 1332. Sunny 57.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 16:24:06

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	BO
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Smith CCR	Tubing Diameter	.17 in
Site Name	Smith Plant	Tubing Length	153 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	146.5 ft

Well Information:		Pumping Information:	
Well ID	PZ200D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7729037 L
Well Total Depth	151.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	5.68 ft	Total Volume Pumped	184 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:00:41	26410.15	21.13	6.74	113.47	167.00	5.65	0.04	-90.57
Last 5	16:05:49	26718.14	21.16	6.71	113.49	165.00	5.65	0.04	-90.46
Last 5	16:10:55	27024.14	21.13	6.74	113.38	167.00	5.65	0.04	-92.82
Last 5	16:15:55	27324.14	21.14	6.73	113.55	164.00	5.65	0.04	-89.87
Last 5	16:20:55	27624.14	21.12	6.69	113.23	164.00	5.65	0.04	-90.16
Variance 0			-0.03	0.03	-0.11			-0.00	-2.35
Variance 1			0.01	-0.01	0.17			-0.00	2.95
Variance 2			-0.02	-0.04	-0.32			-0.00	-0.29

Notes

Sample time 1625. Sunny 72. Two sets taken one total and one F.F. At .45um

Grab Samples

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-166592-1
Laboratory Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/9/2019 9:16:20 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-166592-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-166592-1

Metals
Method(s) 6020: The serial dilution performed for the following sample associated with batch 432268 was outside control limits due to a unit conversion error: (400-166746-G-1-A SD ^25)

General Chemistry
Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 432848 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 433030 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The method blank for analytical batch 433030 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-100 — Lab Sample ID: 400-166592-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.021		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.96		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00065	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.75				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-166592-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00056	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0010	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-166592-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.4	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-166592-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.63		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-166592-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.70		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-166592-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00045	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0020	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.40				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-101 — Lab Sample ID: 400-166592-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.44		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.9	I V	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166592-1	MW-100	Water	02/27/19 11:20	02/27/19 13:25
400-166592-2	MW-107	Water	02/27/19 10:15	02/27/19 13:25
400-166592-3	MW-108	Water	02/27/19 09:15	02/27/19 13:25
400-166592-4	MW-306	Water	02/27/19 10:01	02/27/19 13:25
400-166592-5	MW-307	Water	02/27/19 11:15	02/27/19 13:25
400-166592-6	MW-101	Water	02/27/19 12:30	02/27/19 13:25

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-100

Date Collected: 02/27/19 11:20
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:36	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:36	5
Barium	**0.021**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:36	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:36	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:36	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:36	5
Calcium	**0.96**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:36	5
Cobalt	**0.00065**	**I**	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:36	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:36	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:36	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:36	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:36	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			02/28/19 14:49	1
Chloride	**4.6**		2.0	1.4	mg/L			03/11/19 13:57	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:25	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/12/19 09:54	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.75**				SU			02/27/19 11:20	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-107

Date Collected: 02/27/19 10:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:40	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:40	5
Barium	**0.014**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:40	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:40	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:40	5
Calcium	**0.56**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:40	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:40	5
Cobalt	**0.00056**	**I**	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:40	5
Lead	**0.0010**	**I**	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:40	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:40	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:40	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:40	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**54**		5.0	3.4	mg/L			02/28/19 14:49	1
Chloride	**5.0**		2.0	1.4	mg/L			03/11/19 13:29	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:27	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/12/19 10:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.78**				SU			02/27/19 10:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-108

Date Collected: 02/27/19 09:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:44	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:44	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:44	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:44	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:44	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:44	5
Calcium	**1.3**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:44	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:44	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:44	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:44	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:44	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:44	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:44	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:22	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			02/28/19 14:49	1
Chloride	**4.3**		2.0	1.4	mg/L			03/11/19 13:29	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:31	1
Sulfate	**2.4**	**I**	5.0	1.4	mg/L			03/12/19 10:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.71**				SU			02/27/19 09:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-306

Date Collected: 02/27/19 10:01
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:47	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:47	5
Barium	**0.015**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:47	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:47	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:47	5
Calcium	**0.63**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:47	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:47	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:47	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:47	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			03/01/19 10:15	1
Chloride	**5.1**		2.0	1.4	mg/L			03/11/19 13:29	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:34	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/12/19 10:07	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.87**				SU			02/27/19 10:01	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-307

Date Collected: 02/27/19 11:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:51	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:51	5
Barium	**0.018**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:51	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:51	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:51	5
Calcium	**0.70**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:51	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:51	5
Cobalt	**0.00045**	**I**	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:51	5
Lithium	**0.0020**	**I**	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:51	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:51	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:25	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**28**		5.0	3.4	mg/L			03/01/19 10:15	1
Chloride	**4.0**		2.0	1.4	mg/L			03/11/19 13:29	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:37	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/12/19 10:08	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.40**				SU			02/27/19 11:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-101

Date Collected: 02/27/19 12:30
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 11:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 11:54	5
Barium	**0.011**		0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 11:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:54	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 11:54	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 11:54	5
Calcium	**0.44**		0.25	0.13	mg/L		03/04/19 12:12	03/05/19 11:54	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 11:54	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 11:54	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 11:54	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 11:54	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 11:54	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 11:54	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 11:54	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/11/19 10:28	03/12/19 12:27	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**68**		5.0	3.4	mg/L			03/01/19 10:15	1
Chloride	**5.1**		2.0	1.4	mg/L			03/11/19 13:29	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 14:40	1
Sulfate	**1.9**	**I V**	5.0	1.4	mg/L			03/12/19 12:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.84**				SU			02/27/19 12:30	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample 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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-100
Date Collected: 02/27/19 11:20
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:36	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431730	02/28/19 14:49	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	432984	03/12/19 09:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 11:20	AW	TAL PEN

Client Sample ID: MW-107
Date Collected: 02/27/19 10:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:40	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431730	02/28/19 14:49	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:27	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	432984	03/12/19 10:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 10:15	AW	TAL PEN

Client Sample ID: MW-108
Date Collected: 02/27/19 09:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:44	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431730	02/28/19 14:49	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:31	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	432984	03/12/19 10:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 09:15	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Client Sample ID: MW-306
Date Collected: 02/27/19 10:01
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:47	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431817	03/01/19 10:15	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:34	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	432984	03/12/19 10:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 10:01	AW	TAL PEN

Client Sample ID: MW-307
Date Collected: 02/27/19 11:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:51	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431817	03/01/19 10:15	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	432984	03/12/19 10:08	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 11:15	AW	TAL PEN

Client Sample ID: MW-101
Date Collected: 02/27/19 12:30
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432031	03/04/19 12:12	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	432268	03/05/19 11:54	DRE	TAL PEN
Total/NA	Prep	7470A			432635	03/11/19 10:28	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433011	03/12/19 12:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	431817	03/01/19 10:15	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	432848	03/11/19 13:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	432348	03/06/19 14:40	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	433030	03/12/19 12:26	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435643	02/27/19 12:30	AW	TAL PEN

Laboratory References:
TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 432031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total Recoverable	Water	3005A	
400-166592-2	MW-107	Total Recoverable	Water	3005A	
400-166592-3	MW-108	Total Recoverable	Water	3005A	
400-166592-4	MW-306	Total Recoverable	Water	3005A	
400-166592-5	MW-307	Total Recoverable	Water	3005A	
400-166592-6	MW-101	Total Recoverable	Water	3005A	
MB 400-432031/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-432031/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-166746-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-166746-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 432268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total Recoverable	Water	6020	432031
400-166592-2	MW-107	Total Recoverable	Water	6020	432031
400-166592-3	MW-108	Total Recoverable	Water	6020	432031
400-166592-4	MW-306	Total Recoverable	Water	6020	432031
400-166592-5	MW-307	Total Recoverable	Water	6020	432031
400-166592-6	MW-101	Total Recoverable	Water	6020	432031
MB 400-432031/1-A ^5	Method Blank	Total Recoverable	Water	6020	432031
LCS 400-432031/2-A	Lab Control Sample	Total Recoverable	Water	6020	432031
400-166746-G-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	432031
400-166746-G-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	432031

Prep Batch: 432635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	7470A	
400-166592-2	MW-107	Total/NA	Water	7470A	
400-166592-3	MW-108	Total/NA	Water	7470A	
400-166592-4	MW-306	Total/NA	Water	7470A	
400-166592-5	MW-307	Total/NA	Water	7470A	
400-166592-6	MW-101	Total/NA	Water	7470A	
MB 400-432635/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-432635/15-A	Lab Control Sample	Total/NA	Water	7470A	
490-169720-A-7-C MS	Matrix Spike	Dissolved	Water	7470A	
490-169720-A-7-D MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	

Analysis Batch: 433011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	7470A	432635
400-166592-2	MW-107	Total/NA	Water	7470A	432635
400-166592-3	MW-108	Total/NA	Water	7470A	432635
400-166592-4	MW-306	Total/NA	Water	7470A	432635
400-166592-5	MW-307	Total/NA	Water	7470A	432635
400-166592-6	MW-101	Total/NA	Water	7470A	432635
MB 400-432635/14-A	Method Blank	Total/NA	Water	7470A	432635
LCS 400-432635/15-A	Lab Control Sample	Total/NA	Water	7470A	432635
490-169720-A-7-C MS	Matrix Spike	Dissolved	Water	7470A	432635
490-169720-A-7-D MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	432635

General Chemistry

Analysis Batch: 431730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	SM 2540C	
400-166592-2	MW-107	Total/NA	Water	SM 2540C	
400-166592-3	MW-108	Total/NA	Water	SM 2540C	
MB 400-431730/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-431730/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166575-D-17 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 431817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-4	MW-306	Total/NA	Water	SM 2540C	
400-166592-5	MW-307	Total/NA	Water	SM 2540C	
400-166592-6	MW-101	Total/NA	Water	SM 2540C	
MB 400-431817/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-431817/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166592-5 DU	MW-307	Total/NA	Water	SM 2540C	

Analysis Batch: 432348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	SM 4500 F C	
400-166592-2	MW-107	Total/NA	Water	SM 4500 F C	
400-166592-3	MW-108	Total/NA	Water	SM 4500 F C	
400-166592-4	MW-306	Total/NA	Water	SM 4500 F C	
400-166592-5	MW-307	Total/NA	Water	SM 4500 F C	
400-166592-6	MW-101	Total/NA	Water	SM 4500 F C	
MB 400-432348/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-432348/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-166804-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-166804-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-166504-D-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 432848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-166592-2	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-166592-3	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-166592-4	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-166592-5	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-166592-6	MW-101	Total/NA	Water	SM 4500 Cl- E	
MB 400-432848/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-432848/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-432848/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-166592-1 MS	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-166592-1 MSD	MW-100	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 432984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-166592-2	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-166592-3	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-166592-4	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-166592-5	MW-307	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 432984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-432984/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-432984/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-432984/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-166592-1 MS	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-166592-1 MSD	MW-100	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 433030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-6	MW-101	Total/NA	Water	SM 4500 SO4 E	
MB 400-433030/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-433030/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-433030/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167006-E-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167006-E-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 435643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	Field Sampling	
400-166592-2	MW-107	Total/NA	Water	Field Sampling	
400-166592-3	MW-108	Total/NA	Water	Field Sampling	
400-166592-4	MW-306	Total/NA	Water	Field Sampling	
400-166592-5	MW-307	Total/NA	Water	Field Sampling	
400-166592-6	MW-101	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-432031/1-A ^5
Matrix: Water
Analysis Batch: 432268

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432031

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/04/19 12:12	03/05/19 10:28	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/04/19 12:12	03/05/19 10:28	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/04/19 12:12	03/05/19 10:28	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 10:28	5
Boron	0.021	U	0.050	0.021	mg/L		03/04/19 12:12	03/05/19 10:28	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/04/19 12:12	03/05/19 10:28	5
Calcium	0.13	U	0.25	0.13	mg/L		03/04/19 12:12	03/05/19 10:28	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/04/19 12:12	03/05/19 10:28	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/04/19 12:12	03/05/19 10:28	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/04/19 12:12	03/05/19 10:28	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/04/19 12:12	03/05/19 10:28	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/04/19 12:12	03/05/19 10:28	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/04/19 12:12	03/05/19 10:28	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/04/19 12:12	03/05/19 10:28	5

Lab Sample ID: LCS 400-432031/2-A
Matrix: Water
Analysis Batch: 432268

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0549		mg/L		110	80 - 120
Arsenic	0.0500	0.0595		mg/L		119	80 - 120
Barium	0.0500	0.0590		mg/L		118	80 - 120
Beryllium	0.0500	0.0526		mg/L		105	80 - 120
Boron	0.100	0.103		mg/L		103	80 - 120
Cadmium	0.0500	0.0548		mg/L		110	80 - 120
Calcium	5.00	5.42		mg/L		108	80 - 120
Chromium	0.0500	0.0565		mg/L		113	80 - 120
Cobalt	0.0500	0.0572		mg/L		114	80 - 120
Lead	0.0500	0.0546		mg/L		109	80 - 120
Lithium	0.0500	0.0555		mg/L		111	80 - 120
Molybdenum	0.0500	0.0527		mg/L		105	80 - 120
Selenium	0.0500	0.0544		mg/L		109	80 - 120
Thallium	0.0100	0.0106		mg/L		106	80 - 120

Lab Sample ID: 400-166746-G-1-B MS ^5
Matrix: Water
Analysis Batch: 432268

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 432031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0519		mg/L		104	75 - 125
Arsenic	0.0015		0.0500	0.0571		mg/L		111	75 - 125
Barium	0.011		0.0500	0.0657		mg/L		110	75 - 125
Beryllium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125
Boron	0.021	U	0.100	0.116		mg/L		116	75 - 125
Cadmium	0.00034	U	0.0500	0.0515		mg/L		103	75 - 125
Calcium	7.1		5.00	12.0		mg/L		100	75 - 125
Chromium	0.0011	U	0.0500	0.0521		mg/L		104	75 - 125
Cobalt	0.00040	U	0.0500	0.0538		mg/L		108	75 - 125

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

Lab Sample ID: 400-166746-G-1-B MS ^5
Matrix: Water
Analysis Batch: 432268

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 432031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.00035	U	0.0500	0.0535		mg/L		107	75 - 125
Lithium	0.0031	I	0.0500	0.0558		mg/L		106	75 - 125
Molybdenum	0.017		0.0500	0.0658		mg/L		98	75 - 125
Selenium	0.0019		0.0500	0.0560		mg/L		108	75 - 125
Thallium	0.000085	U	0.0100	0.00994		mg/L		99	75 - 125

Lab Sample ID: 400-166746-G-1-C MSD ^5
Matrix: Water
Analysis Batch: 432268

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 432031

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0509		mg/L		102	75 - 125	2	20
Arsenic	0.0015		0.0500	0.0557		mg/L		108	75 - 125	3	20
Barium	0.011		0.0500	0.0626		mg/L		104	75 - 125	5	20
Beryllium	0.00034	U	0.0500	0.0495		mg/L		99	75 - 125	3	20
Boron	0.021	U	0.100	0.109		mg/L		109	75 - 125	6	20
Cadmium	0.00034	U	0.0500	0.0501		mg/L		100	75 - 125	3	20
Calcium	7.1		5.00	11.8		mg/L		96	75 - 125	2	20
Chromium	0.0011	U	0.0500	0.0521		mg/L		104	75 - 125	0	20
Cobalt	0.00040	U	0.0500	0.0535		mg/L		107	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0517		mg/L		103	75 - 125	4	20
Lithium	0.0031	I	0.0500	0.0539		mg/L		102	75 - 125	4	20
Molybdenum	0.017		0.0500	0.0652		mg/L		97	75 - 125	1	20
Selenium	0.0019		0.0500	0.0520		mg/L		100	75 - 125	7	20
Thallium	0.000085	U	0.0100	0.00964		mg/L		96	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-432635/14-A
Matrix: Water
Analysis Batch: 433011

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432635

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/08/19 12:55	03/12/19 11:52	1

Lab Sample ID: LCS 400-432635/15-A
Matrix: Water
Analysis Batch: 433011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432635

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000959		mg/L		95	80 - 120

Lab Sample ID: 490-169720-A-7-C MS
Matrix: Water
Analysis Batch: 433011

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 432635

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00196		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 490-169720-A-7-D MSD
Matrix: Water
Analysis Batch: 433011

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 432635

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00198		mg/L		98	80 - 120	1	20

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

Lab Sample ID: MB 400-431730/1
Matrix: Water
Analysis Batch: 431730

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			02/28/19 14:49	1

Lab Sample ID: LCS 400-431730/2
Matrix: Water
Analysis Batch: 431730

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	248		mg/L		85	78 - 122

Lab Sample ID: 400-166575-D-17 DU
Matrix: Water
Analysis Batch: 431730

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	74		76.0		mg/L		3	5

Lab Sample ID: MB 400-431817/1
Matrix: Water
Analysis Batch: 431817

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/01/19 10:15	1

Lab Sample ID: LCS 400-431817/2
Matrix: Water
Analysis Batch: 431817

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	266		mg/L		91	78 - 122

Lab Sample ID: 400-166592-5 DU
Matrix: Water
Analysis Batch: 431817

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	28		28.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-432848/16
Matrix: Water
Analysis Batch: 432848

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/11/19 13:19	1

Lab Sample ID: LCS 400-432848/17
Matrix: Water
Analysis Batch: 432848

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.7		mg/L		102	90 - 110

Lab Sample ID: MRL 400-432848/13
Matrix: Water
Analysis Batch: 432848

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.00	I	mg/L		50	50 - 150

Lab Sample ID: 400-166592-1 MS
Matrix: Water
Analysis Batch: 432848

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.6		10.0	17.5	J3	mg/L		129	73 - 120

Lab Sample ID: 400-166592-1 MSD
Matrix: Water
Analysis Batch: 432848

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.6		10.0	17.7	J3	mg/L		130	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-432348/3
Matrix: Water
Analysis Batch: 432348

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/06/19 13:29	1

Lab Sample ID: LCS 400-432348/4
Matrix: Water
Analysis Batch: 432348

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.76		mg/L		94	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-166804-A-1 MS
Matrix: Water
Analysis Batch: 432348

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.78		1.00	1.79		mg/L		101	75 - 125		

Lab Sample ID: 400-166804-A-1 MSD
Matrix: Water
Analysis Batch: 432348

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.78		1.00	1.79		mg/L		101	75 - 125	0	4

Lab Sample ID: 400-166504-D-4 DU
Matrix: Water
Analysis Batch: 432348

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-432984/6
Matrix: Water
Analysis Batch: 432984

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/12/19 09:54	1

Lab Sample ID: LCS 400-432984/7
Matrix: Water
Analysis Batch: 432984

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	15.0	14.6		mg/L		98	90 - 110		

Lab Sample ID: MRL 400-432984/3
Matrix: Water
Analysis Batch: 432984

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	5.00	3.76	I	mg/L		75	50 - 150		

Lab Sample ID: 400-166592-1 MS
Matrix: Water
Analysis Batch: 432984

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	9.73		mg/L		97	77 - 128		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-166592-1 MSD
Matrix: Water
Analysis Batch: 432984

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	9.91		mg/L		99	77 - 128	2	5

Lab Sample ID: MB 400-433030/6
Matrix: Water
Analysis Batch: 433030

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.75	I	5.0	1.4	mg/L			03/12/19 12:20	1

Lab Sample ID: LCS 400-433030/7
Matrix: Water
Analysis Batch: 433030

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.3		mg/L		102	90 - 110

Lab Sample ID: MRL 400-433030/3
Matrix: Water
Analysis Batch: 433030

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.94		mg/L		119	50 - 150

Lab Sample ID: 400-167006-E-6 MS
Matrix: Water
Analysis Batch: 433030

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	2.1	I V	10.0	2.08	I V J3	mg/L		-0.7	77 - 128

Lab Sample ID: 400-167006-E-6 MSD
Matrix: Water
Analysis Batch: 433030

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	2.1	I V	10.0	1.94	I V J3	mg/L		-2	77 - 128	7	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans / Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82554-23627.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist Background	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-166592 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-100	2/27/19	1120	G	Water			X	X	X	X		
MW-107		1015		Water								
MW-108		0915		Water								
MW-306		1001		Water								
MW-307		1115		Water								
MW-101	2/27/19	1230	G	Water			X	X	X	X		
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/27/19 1325	RDH	Kathy R Avery	2/27/19 1325	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		14.5°C IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166592-1
SDG Number: Background

Login Number: 166592
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	14.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166592-1
SDG: Background

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-166592-2
TestAmerica Sample Delivery Group: Background
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Authorized for release by:
3/29/2019 4:48:02 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Certification Summary 21

Job ID: 400-166592-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-166592-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-417767. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-166592-1), MW-107 (400-166592-2), MW-108 (400-166592-3), MW-306 (400-166592-4), MW-307 (400-166592-5), MW-101 (400-166592-6), (LCS 160-417767/1-A), (MB 160-417767/23-A), (160-33082-B-2-A) and (160-33082-B-2-B DU)

Method(s) 9320: Ra-228 Prep Batch 160-417774. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-166592-1), MW-107 (400-166592-2), MW-108 (400-166592-3), MW-306 (400-166592-4), MW-307 (400-166592-5), MW-101 (400-166592-6), (LCS 160-417774/1-A), (MB 160-417774/23-A), (160-33082-B-2-C) and (160-33082-B-2-D DU)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166592-1	MW-100	Water	02/27/19 11:20	02/27/19 13:25
400-166592-2	MW-107	Water	02/27/19 10:15	02/27/19 13:25
400-166592-3	MW-108	Water	02/27/19 09:15	02/27/19 13:25
400-166592-4	MW-306	Water	02/27/19 10:01	02/27/19 13:25
400-166592-5	MW-307	Water	02/27/19 11:15	02/27/19 13:25
400-166592-6	MW-101	Water	02/27/19 12:30	02/27/19 13:25

Client Sample ID: MW-100
Date Collected: 02/27/19 11:20
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283		0.117	0.119	1.00	0.122	pCi/L	03/05/19 11:54	03/27/19 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:38*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.368		0.239	0.241	1.00	0.365	pCi/L	03/05/19 12:42	03/22/19 15:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:32*	*1*
Y Carrier	*80.4*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.651		0.266	0.269	5.00	0.365	pCi/L		03/28/19 13:23	1

Client Sample ID: MW-107

Date Collected: 02/27/19 10:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.253		0.0989	0.102	1.00	0.0923	pCi/L	03/05/19 11:54	03/27/19 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:38*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.659		0.236	0.244	1.00	0.314	pCi/L	03/05/19 12:42	03/22/19 15:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*
Y Carrier	*82.2*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.912		0.256	0.264	5.00	0.314	pCi/L		03/28/19 13:23	1

Client Sample ID: MW-108

Date Collected: 02/27/19 09:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.318		0.116	0.120	1.00	0.116	pCi/L	03/05/19 11:54	03/27/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:39*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.48		0.345	0.371	1.00	0.426	pCi/L	03/05/19 12:42	03/22/19 15:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*
Y Carrier	*81.1*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.80		0.364	0.390	5.00	0.426	pCi/L		03/28/19 13:23	1

Client Sample ID: MW-306

Date Collected: 02/27/19 10:01
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.272		0.104	0.107	1.00	0.0986	pCi/L	03/05/19 11:54	03/27/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:39*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.469		0.230	0.234	1.00	0.336	pCi/L	03/05/19 12:42	03/22/19 15:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*
Y Carrier	*84.9*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.741		0.252	0.257	5.00	0.336	pCi/L		03/28/19 13:23	1

Client Sample ID: MW-307

Date Collected: 02/27/19 11:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.0924	0.0931	1.00	0.132	pCi/L	03/05/19 11:54	03/27/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:39*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.302	U	0.239	0.241	1.00	0.379	pCi/L	03/05/19 12:42	03/22/19 15:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*
Y Carrier	*80.0*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.431**		0.256	0.258	5.00	0.379	pCi/L		03/28/19 13:23	1

Client Sample ID: MW-101

Date Collected: 02/27/19 12:30
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.243		0.101	0.104	1.00	0.101	pCi/L	03/05/19 11:54	03/27/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:39*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.584		0.273	0.278	1.00	0.400	pCi/L	03/05/19 12:42	03/22/19 15:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*
Y Carrier	*81.9*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.827		0.291	0.297	5.00	0.400	pCi/L		03/28/19 13:23	1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Client Sample ID: MW-100
Date Collected: 02/27/19 11:20
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:38	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:32	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Client Sample ID: MW-107
Date Collected: 02/27/19 10:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:38	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Client Sample ID: MW-108
Date Collected: 02/27/19 09:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:39	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Client Sample ID: MW-306
Date Collected: 02/27/19 10:01
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:39	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Client Sample ID: MW-307

Date Collected: 02/27/19 11:15
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:39	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Client Sample ID: MW-101

Date Collected: 02/27/19 12:30
Date Received: 02/27/19 13:25

Lab Sample ID: 400-166592-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			417767	03/05/19 11:54	LTC	TAL SL
Total/NA	Analysis	9315		1	421367	03/27/19 13:39	CDR	TAL SL
Total/NA	Prep	PrecSep_0			417774	03/05/19 12:42	LTC	TAL SL
Total/NA	Analysis	9320		1	420715	03/22/19 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	421645	03/28/19 13:23	CDR	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 417767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	PrecSep-21	
400-166592-2	MW-107	Total/NA	Water	PrecSep-21	
400-166592-3	MW-108	Total/NA	Water	PrecSep-21	
400-166592-4	MW-306	Total/NA	Water	PrecSep-21	
400-166592-5	MW-307	Total/NA	Water	PrecSep-21	
400-166592-6	MW-101	Total/NA	Water	PrecSep-21	
MB 160-417767/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-417767/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-33082-B-2-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 417774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166592-1	MW-100	Total/NA	Water	PrecSep_0	
400-166592-2	MW-107	Total/NA	Water	PrecSep_0	
400-166592-3	MW-108	Total/NA	Water	PrecSep_0	
400-166592-4	MW-306	Total/NA	Water	PrecSep_0	
400-166592-5	MW-307	Total/NA	Water	PrecSep_0	
400-166592-6	MW-101	Total/NA	Water	PrecSep_0	
MB 160-417774/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-417774/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-33082-B-2-D DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-417767/23-A
Matrix: Water
Analysis Batch: 421368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417767

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06838	U	0.0641	0.0644	1.00	0.0969	pCi/L	03/05/19 11:54	03/27/19 13:43	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*40 - 110*	*03/05/19 11:54*	*03/27/19 13:43*	*1*

Lab Sample ID: LCS 160-417767/1-A
Matrix: Water
Analysis Batch: 421367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417767

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.730		1.05	1.00	0.0847	pCi/L	86	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*

Lab Sample ID: 160-33082-B-2-B DU
Matrix: Water
Analysis Batch: 421367

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 417767

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.157	U		0.1916		0.129	1.00	0.166	pCi/L			0.13	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*78.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-417774/23-A
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 417774

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.08469	U	0.167	0.167	1.00	0.318	pCi/L	03/05/19 12:42	03/22/19 15:35	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:35*	*1*
Y Carrier	*84.1*		*40 - 110*	*03/05/19 12:42*	*03/22/19 15:35*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-417774/1-A
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 417774

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.37	9.551		1.11	1.00	0.360	pCi/L	102	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*
Y Carrier	*77.0*		*40 - 110*

Lab Sample ID: 160-33082-B-2-D DU
Matrix: Water
Analysis Batch: 420715

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 417774

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.378	U		0.2455	U	0.362	1.00	0.606	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*78.5*		*40 - 110*
Y Carrier	*85.6*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans / Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82554-23627.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist Background	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-166592 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-100	2/27/19	1120	G	Water			X	X	X	X		
MW-107		1015		Water								
MW-108		0915		Water								
MW-306		1001		Water								
MW-307		1115		Water								
MW-101	2/27/19	1230	G	Water			X	X	X	Y		
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	2/27/19 1325	RDH	Kathy R Avery	2/27/19 1325	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		14.5°C IR

Ver: 01/16/2019

3/29/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166592-2
SDG Number: Background

Login Number: 166592
List Number: 1
Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	14.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166592-2
SDG Number: Background

Login Number: 166592
List Number: 2
Creator: Hellm, Michael

List Source: TestAmerica St. Louis
List Creation: 03/01/19 12:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19 *
Florida	NELAP	4	E87689	06-30-19
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

TestAmerica Job ID: 400-166592-2
SDG: Background

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19 *
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-166764-1
Laboratory Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/9/2019 10:47:18 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-166764-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-166764-1

Metals

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 433042 and analytical batch 433286 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-166764-1), MW-204 (400-166764-3), MW-206 (400-166764-5), DUP-05 (400-166764-9) and MW-201 (400-166764-10). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The matrix spike duplicate (MSD) recoveries for preparation batch 432932 and analytical batch 433378 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 433548 was outside control limits: (400-166764-B-4 DU). The associated Laboratory Control Sample (LCS)met acceptance criteria.

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 433548 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-166648-A-5 MS), (400-166648-A-5 MSD), (400-166764-B-10 MS) and (400-166764-B-10 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 433709 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-166764-1), MW-204 (400-166764-3), MW-206 (400-166764-5), DUP-05 (400-166764-9), MW-201 (400-166764-10), (400-166764-B-10 MS), (400-166764-B-10 MSD), (400-166648-A-5), (400-166648-A-5 MS) and (400-166648-A-5 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-166648-A-5 MS) and (400-166648-A-5 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 433223 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-166764-1), MW-203 (400-166764-2), MW-204 (400-166764-3), MW-205 (400-166764-4), MW-206 (400-166764-5), DUP-02 (400-166764-6), (400-166648-A-5), (400-166648-A-5 MS), (400-166648-A-5 MSD), DUP-05 (400-166764-9) and MW-201 (400-166764-10). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 433751 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200 — Lab Sample ID: 400-166764-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00067	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.045		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0024	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0012	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0025	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0044		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00010	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	8.5		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	230		2.5	1.3	mg/L	50		6020	Total Recoverable
Mercury	0.0016		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1400		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	470		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.30		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	130		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.97				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-166764-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.039		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.1		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	30		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0023	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0011	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0014		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	24		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	100		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.46				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-166764-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.024		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00038	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	62		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-166764-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.013		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0019		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0016	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0028		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00027	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	4.9		0.50	0.21	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	660		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	72		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.27		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	310		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.31				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-166764-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.057		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.4		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0022	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00047	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Mercury	0.00019	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	200		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	19		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	110		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.02				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-166764-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00089	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.00065	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Cobalt	0.0022	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0019		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.011		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00024	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	20		1.0	0.42	mg/L	100		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206 (Continued) — Lab Sample ID: 400-166764-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium - DL	350		5.0	2.5	mg/L	100		6020	Total Recoverable
Mercury	0.00012	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1700		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	720		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.10		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	240		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.42				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-166764-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.056		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	1.5		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	27		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0022	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.00018	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	110		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.02				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-02 — Lab Sample ID: 400-166764-7

No Detections.

Client Sample ID: EB-02 — Lab Sample ID: 400-166764-8

No Detections.

Client Sample ID: DUP-05 — Lab Sample ID: 400-166764-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0024	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	43		0.25	0.13	mg/L	5		6020	Total Recoverable
Chromium	0.0021	I	0.0025	0.0011	mg/L	5		6020	Total Recoverable
Cobalt	0.0018	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00041	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0039	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0012	I	0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00017	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-05 (Continued) — Lab Sample ID: 400-166764-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron - DL	2.1		0.25	0.11	mg/L	25		6020	Total Recoverable
Mercury	0.0031		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	290		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	73		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.65		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	86		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-166764-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.035		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cadmium	0.0023	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	43		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0017	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00037	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0043	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0012	I	0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00016	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	2.1		0.25	0.11	mg/L	25		6020	Total Recoverable
Mercury	0.0026		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	300		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	75		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.64		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	86		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-166764-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.098		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	5.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00077	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Mercury	0.000078	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	15		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.93				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166764-1	MW-200	Water	02/28/19 10:05	03/02/19 09:30
400-166764-2	MW-203	Water	03/01/19 10:35	03/02/19 09:30
400-166764-3	MW-204	Water	02/28/19 13:55	03/02/19 09:30
400-166764-4	MW-205	Water	02/28/19 09:05	03/02/19 09:30
400-166764-5	MW-206	Water	02/28/19 10:55	03/02/19 09:30
400-166764-6	DUP-02	Water	02/28/19 08:05	03/02/19 09:30
400-166764-7	FB-02	Water	03/01/19 10:37	03/02/19 09:30
400-166764-8	EB-02	Water	03/01/19 11:05	03/02/19 09:30
400-166764-9	DUP-05	Water	03/05/19 08:30	03/06/19 16:35
400-166764-10	MW-201	Water	03/05/19 09:30	03/06/19 16:35
400-166764-11	MW-202	Water	03/05/19 11:20	03/06/19 16:35

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-200

Date Collected: 02/28/19 10:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:07	5
Arsenic	**0.00067**	**I**	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:07	5
Barium	**0.045**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:07	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:07	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:07	5
Cobalt	**0.0024**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:07	5
Lead	**0.0012**	**I**	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:07	5
Lithium	**0.0025**	**I**	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:07	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:07	5
Selenium	**0.0044**		0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:07	5
Thallium	**0.00010**	**I**	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:07	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**8.5**		0.50	0.21	mg/L		03/13/19 08:16	03/14/19 18:26	50
Calcium	**230**		2.5	1.3	mg/L		03/13/19 08:16	03/14/19 18:26	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0016**		0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1400**		10	6.8	mg/L			03/05/19 09:01	1
Chloride	**470**		40	28	mg/L			03/13/19 12:34	20
Fluoride	**0.30**		0.10	0.032	mg/L			03/15/19 17:17	1
Sulfate	**130**		50	14	mg/L			03/13/19 15:43	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.97**				SU			02/28/19 10:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-203

Date Collected: 03/01/19 10:35
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:10	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:10	5
Barium	**0.039**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:10	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:10	5
Boron	**1.1**		0.050	0.021	mg/L		03/13/19 08:16	03/13/19 20:10	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:10	5
Calcium	**30**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:10	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:10	5
Cobalt	**0.0023**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:10	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:10	5
Lithium	**0.0011**	**I**	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:10	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:10	5
Selenium	**0.0014**		0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:10	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:10	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:50	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**190**		5.0	3.4	mg/L			03/05/19 13:58	1
Chloride	**24**		2.0	1.4	mg/L			03/18/19 10:20	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/19/19 10:12	1
Sulfate	**100**		25	7.0	mg/L			03/18/19 16:04	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.46**				SU			03/01/19 10:35	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-204

Date Collected: 02/28/19 13:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:14	5
Arsenic	**0.0015**		0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:14	5
Barium	**0.024**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:14	5
Beryllium	**0.00038**	**I**	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:14	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:14	5
Calcium	**62**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:14	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:14	5
Cobalt	**0.013**		0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:14	5
Lead	**0.0019**		0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:14	5
Lithium	**0.0016**	**I**	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:14	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:14	5
Selenium	**0.0028**		0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:14	5
Thallium	**0.00027**	**I**	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:14	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**4.9**		0.50	0.21	mg/L		03/13/19 08:16	03/14/19 18:31	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**660**		10	6.8	mg/L			03/05/19 13:58	1
Chloride	**72**		4.0	2.8	mg/L			03/18/19 10:46	2
Fluoride	**0.27**		0.10	0.032	mg/L			03/15/19 17:21	1
Sulfate	**310**		100	28	mg/L			03/13/19 15:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.31**				SU			02/28/19 13:55	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205

Date Collected: 02/28/19 09:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:18	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:18	5
Barium	**0.057**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:18	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:18	5
Boron	**1.4**		0.050	0.021	mg/L		03/13/19 08:16	03/13/19 20:18	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:18	5
Calcium	**27**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:18	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:18	5
Cobalt	**0.0022**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:18	5
Lead	**0.00047**	**I**	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:18	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:18	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:18	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:18	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:18	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00019**	**I**	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:54	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**200**		5.0	3.4	mg/L			03/05/19 12:46	1
Chloride	**19**		2.0	1.4	mg/L			03/18/19 10:10	1
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			03/15/19 17:31	1
Sulfate	**110**		25	7.0	mg/L			03/13/19 15:47	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.02**				SU			02/28/19 09:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-206

Date Collected: 02/28/19 10:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:21	5
Arsenic	**0.00089**	**I**	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:21	5
Barium	**0.048**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:21	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:21	5
Cadmium	**0.00065**	**I**	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:21	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:21	5
Cobalt	**0.0022**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:21	5
Lead	**0.0019**		0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:21	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:21	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:21	5
Selenium	**0.011**		0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:21	5
Thallium	**0.00024**	**I**	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:21	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**20**		1.0	0.42	mg/L		03/13/19 08:16	03/14/19 18:34	100
Calcium	**350**		5.0	2.5	mg/L		03/13/19 08:16	03/14/19 18:34	100

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00012**	**I**	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1700**		25	17	mg/L			03/05/19 13:58	1
Chloride	**720**		40	28	mg/L			03/18/19 10:46	20
Fluoride	**0.10**		0.10	0.032	mg/L			03/15/19 17:43	1
Sulfate	**240**		100	28	mg/L			03/13/19 15:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.42**				SU			02/28/19 10:55	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-02

Date Collected: 02/28/19 08:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:25	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:25	5
Barium	**0.056**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:25	5
Boron	**1.5**		0.050	0.021	mg/L		03/13/19 08:16	03/13/19 20:25	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:25	5
Calcium	**27**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:25	5
Cobalt	**0.0022**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:25	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:25	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:25	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00018**	**I**	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:57	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**240**		5.0	3.4	mg/L			03/05/19 12:46	1
Chloride	**20**		2.0	1.4	mg/L			03/18/19 10:13	1
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			03/15/19 17:39	1
Sulfate	**110**		25	7.0	mg/L			03/13/19 15:47	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.02**				SU			02/28/19 08:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: FB-02

Date Collected: 03/01/19 10:37
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:46	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:46	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:46	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:46	5
Boron	0.021	U	0.050	0.021	mg/L		03/13/19 08:16	03/13/19 20:46	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:46	5
Calcium	0.13	U	0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:46	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:46	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:46	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:46	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:46	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:46	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:46	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:46	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 14:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/05/19 13:58	1
Chloride	1.4	U	2.0	1.4	mg/L			03/18/19 10:20	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 10:16	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/18/19 15:12	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: EB-02

Date Collected: 03/01/19 11:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:50	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:50	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:50	5
Boron	0.021	U	0.050	0.021	mg/L		03/13/19 08:16	03/13/19 20:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:50	5
Calcium	0.13	U	0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:50	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:50	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:50	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:50	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 15:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/05/19 13:58	1
Chloride	1.4	U	2.0	1.4	mg/L			03/18/19 10:20	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 10:19	1
Sulfate	1.4	U	5.0	1.4	mg/L			03/18/19 15:16	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: DUP-05
Date Collected: 03/05/19 08:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-9
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:54	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:54	5
Barium	**0.036**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:54	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:54	5
Cadmium	**0.0024**	**I**	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:54	5
Calcium	**43**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:54	5
Chromium	**0.0021**	**I**	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:54	5
Cobalt	**0.0018**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:54	5
Lead	**0.00041**	**I**	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:54	5
Lithium	**0.0039**	**I**	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:54	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:54	5
Selenium	**0.0012**	**I**	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:54	5
Thallium	**0.00017**	**I**	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:54	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.1**		0.25	0.11	mg/L		03/13/19 08:16	03/14/19 18:38	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0031**		0.00020	0.000070	mg/L		03/12/19 09:30	03/18/19 15:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**290**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**73**		4.0	2.8	mg/L			03/18/19 10:46	2
Fluoride	**0.65**		0.10	0.032	mg/L			03/19/19 10:41	1
Sulfate	**86**		25	7.0	mg/L			03/18/19 16:08	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.71**				SU			03/05/19 08:30	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201

Date Collected: 03/05/19 09:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 20:57	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 20:57	5
Barium	**0.035**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 20:57	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:57	5
Cadmium	**0.0023**	**I**	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 20:57	5
Calcium	**43**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 20:57	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 20:57	5
Cobalt	**0.0017**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 20:57	5
Lead	**0.00037**	**I**	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 20:57	5
Lithium	**0.0043**	**I**	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 20:57	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 20:57	5
Selenium	**0.0012**	**I**	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 20:57	5
Thallium	**0.00016**	**I**	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 20:57	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**2.1**		0.25	0.11	mg/L		03/13/19 08:16	03/14/19 18:42	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0026**		0.00020	0.000070	mg/L		03/12/19 09:41	03/14/19 14:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**300**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**75**		4.0	2.8	mg/L			03/18/19 10:46	2
Fluoride	**0.64**		0.10	0.032	mg/L			03/19/19 10:44	1
Sulfate	**86**		25	7.0	mg/L			03/18/19 16:08	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.71**				SU			03/05/19 09:30	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-202

Date Collected: 03/05/19 11:20
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-11

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 22:02	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 22:02	5
Barium	**0.029**		0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 22:02	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 22:02	5
Boron	**0.098**		0.050	0.021	mg/L		03/13/19 08:16	03/13/19 22:02	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 22:02	5
Calcium	**5.0**		0.25	0.13	mg/L		03/13/19 08:16	03/13/19 22:02	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 22:02	5
Cobalt	**0.00077**	**I**	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 22:02	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 22:02	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 22:02	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 22:02	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 22:02	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 22:02	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000078**	**I**	0.00020	0.000070	mg/L		03/12/19 09:41	03/14/19 14:19	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**68**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**15**		2.0	1.4	mg/L			03/18/19 10:20	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 10:47	1
Sulfate	**6.1**		5.0	1.4	mg/L			03/18/19 15:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.93**				SU			03/05/19 11:20	1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: MW-200
Date Collected: 02/28/19 10:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:07	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	433449	03/14/19 18:26	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432107	03/05/19 09:01	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	433142	03/13/19 12:34	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433548	03/15/19 17:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	433223	03/13/19 15:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	02/28/19 10:05	AW	TAL PEN

Client Sample ID: MW-203
Date Collected: 03/01/19 10:35
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:10	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432185	03/05/19 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:20	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	433751	03/18/19 16:04	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	03/01/19 10:35	AW	TAL PEN

Client Sample ID: MW-204
Date Collected: 02/28/19 13:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:14	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	433449	03/14/19 18:31	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432185	03/05/19 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	433709	03/18/19 10:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433548	03/15/19 17:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	433223	03/13/19 15:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	02/28/19 13:55	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-205
Date Collected: 02/28/19 09:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:18	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432171	03/05/19 12:46	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433548	03/15/19 17:31	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	433223	03/13/19 15:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	02/28/19 09:05	AW	TAL PEN

Client Sample ID: MW-206
Date Collected: 02/28/19 10:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:21	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	100	433449	03/14/19 18:34	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432185	03/05/19 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	433709	03/18/19 10:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433548	03/15/19 17:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	433223	03/13/19 15:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	02/28/19 10:55	AW	TAL PEN

Client Sample ID: DUP-02
Date Collected: 02/28/19 08:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:25	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:57	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432171	03/05/19 12:46	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433548	03/15/19 17:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	433223	03/13/19 15:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	02/28/19 08:05	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: FB-02
Date Collected: 03/01/19 10:37
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:46	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 14:59	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432185	03/05/19 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:20	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	433751	03/18/19 15:12	RRC	TAL PEN

Client Sample ID: EB-02
Date Collected: 03/01/19 11:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:50	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 15:01	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432185	03/05/19 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:20	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:19	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	433751	03/18/19 15:16	RRC	TAL PEN

Client Sample ID: DUP-05
Date Collected: 03/05/19 08:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:54	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	433449	03/14/19 18:38	DRE	TAL PEN
Total/NA	Prep	7470A			432929	03/12/19 09:30	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433735	03/18/19 15:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	433709	03/18/19 10:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	433751	03/18/19 16:08	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	03/05/19 08:30	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Client Sample ID: MW-201

Date Collected: 03/05/19 09:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 20:57	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433043	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	433449	03/14/19 18:42	DRE	TAL PEN
Total/NA	Prep	7470A			432932	03/12/19 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433378	03/14/19 14:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	433709	03/18/19 10:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	433751	03/18/19 16:08	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	03/05/19 09:30	AW	TAL PEN

Client Sample ID: MW-202

Date Collected: 03/05/19 11:20
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433042	03/13/19 08:16	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433286	03/13/19 22:02	DRE	TAL PEN
Total/NA	Prep	7470A			432932	03/12/19 09:41	JAP	TAL PEN
Total/NA	Analysis	7470A		1	433378	03/14/19 14:19	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433709	03/18/19 10:20	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433828	03/19/19 10:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	433751	03/18/19 15:17	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435646	03/05/19 11:20	AW	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 432929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	7470A	
400-166764-2	MW-203	Total/NA	Water	7470A	
400-166764-3	MW-204	Total/NA	Water	7470A	
400-166764-4	MW-205	Total/NA	Water	7470A	
400-166764-5	MW-206	Total/NA	Water	7470A	
400-166764-6	DUP-02	Total/NA	Water	7470A	
400-166764-7	FB-02	Total/NA	Water	7470A	
400-166764-8	EB-02	Total/NA	Water	7470A	
400-166764-9	DUP-05	Total/NA	Water	7470A	
MB 400-432929/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-432929/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-166763-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-166763-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 432932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-10	MW-201	Total/NA	Water	7470A	
400-166764-11	MW-202	Total/NA	Water	7470A	
MB 400-432932/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-432932/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-167030-N-9-B MS	Matrix Spike	Total/NA	Water	7470A	
400-167030-N-9-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 433042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-11	MW-202	Total Recoverable	Water	3005A	
MB 400-433042/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-433042/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-167048-G-3-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-167048-G-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 433043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total Recoverable	Water	3005A	
400-166764-1 - DL	MW-200	Total Recoverable	Water	3005A	
400-166764-2	MW-203	Total Recoverable	Water	3005A	
400-166764-3	MW-204	Total Recoverable	Water	3005A	
400-166764-3 - DL	MW-204	Total Recoverable	Water	3005A	
400-166764-4	MW-205	Total Recoverable	Water	3005A	
400-166764-5 - DL	MW-206	Total Recoverable	Water	3005A	
400-166764-5	MW-206	Total Recoverable	Water	3005A	
400-166764-6	DUP-02	Total Recoverable	Water	3005A	
400-166764-7	FB-02	Total Recoverable	Water	3005A	
400-166764-8	EB-02	Total Recoverable	Water	3005A	
400-166764-9 - DL	DUP-05	Total Recoverable	Water	3005A	
400-166764-9	DUP-05	Total Recoverable	Water	3005A	
400-166764-10	MW-201	Total Recoverable	Water	3005A	
400-166764-10 - DL	MW-201	Total Recoverable	Water	3005A	
MB 400-433043/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-433043/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-166763-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 433043 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166763-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 433286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total Recoverable	Water	6020	433043
400-166764-2	MW-203	Total Recoverable	Water	6020	433043
400-166764-3	MW-204	Total Recoverable	Water	6020	433043
400-166764-4	MW-205	Total Recoverable	Water	6020	433043
400-166764-5	MW-206	Total Recoverable	Water	6020	433043
400-166764-6	DUP-02	Total Recoverable	Water	6020	433043
400-166764-7	FB-02	Total Recoverable	Water	6020	433043
400-166764-8	EB-02	Total Recoverable	Water	6020	433043
400-166764-9	DUP-05	Total Recoverable	Water	6020	433043
400-166764-10	MW-201	Total Recoverable	Water	6020	433043
400-166764-11	MW-202	Total Recoverable	Water	6020	433042
MB 400-433042/1-A ^5	Method Blank	Total Recoverable	Water	6020	433042
MB 400-433043/1-A ^5	Method Blank	Total Recoverable	Water	6020	433043
LCS 400-433042/2-A	Lab Control Sample	Total Recoverable	Water	6020	433042
LCS 400-433043/2-A	Lab Control Sample	Total Recoverable	Water	6020	433043
400-166763-C-2-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	433043
400-166763-C-2-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	433043
400-167048-G-3-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	433042
400-167048-G-3-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	433042

Analysis Batch: 433378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-10	MW-201	Total/NA	Water	7470A	432932
400-166764-11	MW-202	Total/NA	Water	7470A	432932
MB 400-432932/14-A	Method Blank	Total/NA	Water	7470A	432932
LCS 400-432932/15-A	Lab Control Sample	Total/NA	Water	7470A	432932
400-167030-N-9-B MS	Matrix Spike	Total/NA	Water	7470A	432932
400-167030-N-9-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	432932

Analysis Batch: 433449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1 - DL	MW-200	Total Recoverable	Water	6020	433043
400-166764-3 - DL	MW-204	Total Recoverable	Water	6020	433043
400-166764-5 - DL	MW-206	Total Recoverable	Water	6020	433043
400-166764-9 - DL	DUP-05	Total Recoverable	Water	6020	433043
400-166764-10 - DL	MW-201	Total Recoverable	Water	6020	433043

Analysis Batch: 433735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	7470A	432929
400-166764-2	MW-203	Total/NA	Water	7470A	432929
400-166764-3	MW-204	Total/NA	Water	7470A	432929
400-166764-4	MW-205	Total/NA	Water	7470A	432929
400-166764-5	MW-206	Total/NA	Water	7470A	432929
400-166764-6	DUP-02	Total/NA	Water	7470A	432929
400-166764-7	FB-02	Total/NA	Water	7470A	432929
400-166764-8	EB-02	Total/NA	Water	7470A	432929

Metals (Continued)

Analysis Batch: 433735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-9	DUP-05	Total/NA	Water	7470A	432929
MB 400-432929/14-A	Method Blank	Total/NA	Water	7470A	432929
LCS 400-432929/15-A	Lab Control Sample	Total/NA	Water	7470A	432929
400-166763-C-1-B MS	Matrix Spike	Total/NA	Water	7470A	432929
400-166763-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	432929

General Chemistry

Analysis Batch: 432107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	SM 2540C	
MB 400-432107/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-432107/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166713-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 432171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-4	MW-205	Total/NA	Water	SM 2540C	
400-166764-6	DUP-02	Total/NA	Water	SM 2540C	
MB 400-432171/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-432171/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166763-B-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 432185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-2	MW-203	Total/NA	Water	SM 2540C	
400-166764-3	MW-204	Total/NA	Water	SM 2540C	
400-166764-5	MW-206	Total/NA	Water	SM 2540C	
400-166764-7	FB-02	Total/NA	Water	SM 2540C	
400-166764-8	EB-02	Total/NA	Water	SM 2540C	
MB 400-432185/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-432185/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166764-2 DU	MW-203	Total/NA	Water	SM 2540C	

Analysis Batch: 432606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-9	DUP-05	Total/NA	Water	SM 2540C	
400-166764-10	MW-201	Total/NA	Water	SM 2540C	
400-166764-11	MW-202	Total/NA	Water	SM 2540C	
MB 400-432606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-432606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166764-9 DU	DUP-05	Total/NA	Water	SM 2540C	

Analysis Batch: 433142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
MB 400-433142/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-433142/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-433142/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-166648-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-166648-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

General Chemistry

Analysis Batch: 433223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-166764-3	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-166764-4	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-166764-5	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-166764-6	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-433223/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-433223/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-433223/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-166648-A-5 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-166648-A-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-166857-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-166857-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 433548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	SM 4500 F C	
400-166764-3	MW-204	Total/NA	Water	SM 4500 F C	
400-166764-4	MW-205	Total/NA	Water	SM 4500 F C	
400-166764-5	MW-206	Total/NA	Water	SM 4500 F C	
400-166764-6	DUP-02	Total/NA	Water	SM 4500 F C	
MB 400-433548/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-433548/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
660-93065-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-93065-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-166764-4 DU	MW-205	Total/NA	Water	SM 4500 F C	

Analysis Batch: 433709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-2	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-166764-3	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-166764-4	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-166764-5	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-166764-6	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-166764-7	FB-02	Total/NA	Water	SM 4500 Cl- E	
400-166764-8	EB-02	Total/NA	Water	SM 4500 Cl- E	
400-166764-9	DUP-05	Total/NA	Water	SM 4500 Cl- E	
400-166764-10	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-166764-11	MW-202	Total/NA	Water	SM 4500 Cl- E	
MB 400-433709/5	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-433709/6	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-433709/51	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-166764-4 MS	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-166764-4 MSD	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-166764-10 MS	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-166764-10 MSD	MW-201	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 433751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-2	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-166764-7	FB-02	Total/NA	Water	SM 4500 SO4 E	
400-166764-8	EB-02	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 433751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-9	DUP-05	Total/NA	Water	SM 4500 SO4 E	
400-166764-10	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-166764-11	MW-202	Total/NA	Water	SM 4500 SO4 E	
MB 400-433751/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-433751/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-433751/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-166763-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-166763-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-166763-B-7 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-166763-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 433828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-2	MW-203	Total/NA	Water	SM 4500 F C	
400-166764-7	FB-02	Total/NA	Water	SM 4500 F C	
400-166764-8	EB-02	Total/NA	Water	SM 4500 F C	
400-166764-9	DUP-05	Total/NA	Water	SM 4500 F C	
400-166764-10	MW-201	Total/NA	Water	SM 4500 F C	
400-166764-11	MW-202	Total/NA	Water	SM 4500 F C	
MB 400-433828/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-433828/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-109006-C-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-109006-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-166763-B-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 435646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	Field Sampling	
400-166764-2	MW-203	Total/NA	Water	Field Sampling	
400-166764-3	MW-204	Total/NA	Water	Field Sampling	
400-166764-4	MW-205	Total/NA	Water	Field Sampling	
400-166764-5	MW-206	Total/NA	Water	Field Sampling	
400-166764-6	DUP-02	Total/NA	Water	Field Sampling	
400-166764-9	DUP-05	Total/NA	Water	Field Sampling	
400-166764-10	MW-201	Total/NA	Water	Field Sampling	
400-166764-11	MW-202	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-433042/1-A ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433042

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 21:01	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 21:01	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 21:01	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 21:01	5
Boron	0.021	U	0.050	0.021	mg/L		03/13/19 08:16	03/13/19 21:01	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 21:01	5
Calcium	0.13	U	0.25	0.13	mg/L		03/13/19 08:16	03/13/19 21:01	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 21:01	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 21:01	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 21:01	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 21:01	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 21:01	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 21:01	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 21:01	5

Lab Sample ID: LCS 400-433042/2-A
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0477		mg/L		95	80 - 120
Arsenic	0.0500	0.0502		mg/L		100	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0493		mg/L		99	80 - 120
Boron	0.100	0.0929		mg/L		93	80 - 120
Cadmium	0.0500	0.0507		mg/L		101	80 - 120
Calcium	5.00	4.77		mg/L		95	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Cobalt	0.0500	0.0524		mg/L		105	80 - 120
Lead	0.0500	0.0486		mg/L		97	80 - 120
Lithium	0.0500	0.0536		mg/L		107	80 - 120
Molybdenum	0.0500	0.0482		mg/L		96	80 - 120
Selenium	0.0500	0.0479		mg/L		96	80 - 120
Thallium	0.0100	0.00969		mg/L		97	80 - 120

Lab Sample ID: 400-167048-G-3-B MS ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 433042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0471		mg/L		94	75 - 125
Arsenic	0.0080		0.0500	0.0596		mg/L		103	75 - 125
Barium	1.0		0.0500	1.09		mg/L		86	75 - 125
Beryllium	0.00034	U	0.0500	0.0494		mg/L		99	75 - 125
Boron	0.021	U	0.100	0.133	J3	mg/L		133	75 - 125
Cadmium	0.00034	U	0.0500	0.0490		mg/L		98	75 - 125
Calcium	140	L	5.00	144	L J3	mg/L		152	75 - 125
Chromium	0.0011	U	0.0500	0.0512		mg/L		102	75 - 125
Cobalt	0.0092		0.0500	0.0612		mg/L		104	75 - 125

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

Lab Sample ID: 400-167048-G-3-B MS ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 433042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0012	I	0.0500	0.0509		mg/L		99	75 - 125
Lithium	0.0014	I	0.0500	0.0534		mg/L		104	75 - 125
Molybdenum	0.0020	U	0.0500	0.0504		mg/L		101	75 - 125
Selenium	0.00071	U	0.0500	0.0490		mg/L		98	75 - 125
Thallium	0.000085	U	0.0100	0.00961		mg/L		96	75 - 125

Lab Sample ID: 400-167048-G-3-C MSD ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 433042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0474		mg/L		95	75 - 125	1	20
Arsenic	0.0080		0.0500	0.0594		mg/L		103	75 - 125	0	20
Barium	1.0		0.0500	1.12	J3	mg/L		141	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0499		mg/L		100	75 - 125	1	20
Boron	0.021	U	0.100	0.131	J3	mg/L		131	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0509		mg/L		102	75 - 125	4	20
Calcium	140	L	5.00	145	L J3	mg/L		170	75 - 125	1	20
Chromium	0.0011	U	0.0500	0.0524		mg/L		105	75 - 125	2	20
Cobalt	0.0092		0.0500	0.0617		mg/L		105	75 - 125	1	20
Lead	0.0012	I	0.0500	0.0505		mg/L		99	75 - 125	1	20
Lithium	0.0014	I	0.0500	0.0542		mg/L		106	75 - 125	1	20
Molybdenum	0.0020	U	0.0500	0.0492		mg/L		98	75 - 125	2	20
Selenium	0.00071	U	0.0500	0.0477		mg/L		95	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.00965		mg/L		97	75 - 125	0	20

Lab Sample ID: MB 400-433043/1-A ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433043

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/13/19 08:16	03/13/19 18:33	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/13/19 08:16	03/13/19 18:33	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/13/19 08:16	03/13/19 18:33	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 18:33	5
Boron	0.021	U	0.050	0.021	mg/L		03/13/19 08:16	03/13/19 18:33	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/13/19 08:16	03/13/19 18:33	5
Calcium	0.13	U	0.25	0.13	mg/L		03/13/19 08:16	03/13/19 18:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		03/13/19 08:16	03/13/19 18:33	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/13/19 08:16	03/13/19 18:33	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/13/19 08:16	03/13/19 18:33	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/13/19 08:16	03/13/19 18:33	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/13/19 08:16	03/13/19 18:33	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/13/19 08:16	03/13/19 18:33	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/13/19 08:16	03/13/19 18:33	5

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

Lab Sample ID: LCS 400-433043/2-A
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0478		mg/L		96	80 - 120
Arsenic	0.0500	0.0506		mg/L		101	80 - 120
Barium	0.0500	0.0490		mg/L		98	80 - 120
Beryllium	0.0500	0.0501		mg/L		100	80 - 120
Boron	0.100	0.101		mg/L		101	80 - 120
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Calcium	5.00	4.80		mg/L		96	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Cobalt	0.0500	0.0524		mg/L		105	80 - 120
Lead	0.0500	0.0495		mg/L		99	80 - 120
Lithium	0.0500	0.0538		mg/L		108	80 - 120
Molybdenum	0.0500	0.0486		mg/L		97	80 - 120
Selenium	0.0500	0.0480		mg/L		96	80 - 120
Thallium	0.0100	0.00990		mg/L		99	80 - 120

Lab Sample ID: 400-166763-C-2-C MS ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 433043

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0483		mg/L		97	75 - 125
Arsenic	0.00046	U	0.0500	0.0512		mg/L		102	75 - 125
Barium	0.010		0.0500	0.0605		mg/L		100	75 - 125
Beryllium	0.00034	U	0.0500	0.0492		mg/L		98	75 - 125
Boron	0.021	U	0.100	0.105		mg/L		105	75 - 125
Cadmium	0.00034	U	0.0500	0.0514		mg/L		103	75 - 125
Calcium	0.57		5.00	5.41		mg/L		97	75 - 125
Chromium	0.0028		0.0500	0.0518		mg/L		98	75 - 125
Cobalt	0.00040	U	0.0500	0.0531		mg/L		106	75 - 125
Lead	0.00035	U	0.0500	0.0491		mg/L		98	75 - 125
Lithium	0.0014	I	0.0500	0.0533		mg/L		104	75 - 125
Molybdenum	0.0020	U	0.0500	0.0487		mg/L		97	75 - 125
Selenium	0.00071	U	0.0500	0.0493		mg/L		99	75 - 125
Thallium	0.000085	U	0.0100	0.00992		mg/L		99	75 - 125

Lab Sample ID: 400-166763-C-2-D MSD ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 433043

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0476		mg/L		95	75 - 125	2	20
Arsenic	0.00046	U	0.0500	0.0509		mg/L		102	75 - 125	1	20
Barium	0.010		0.0500	0.0597		mg/L		98	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0498		mg/L		100	75 - 125	1	20
Boron	0.021	U	0.100	0.104		mg/L		104	75 - 125	1	20
Cadmium	0.00034	U	0.0500	0.0516		mg/L		103	75 - 125	0	20
Calcium	0.57		5.00	5.30		mg/L		95	75 - 125	2	20
Chromium	0.0028		0.0500	0.0524		mg/L		99	75 - 125	1	20
Cobalt	0.00040	U	0.0500	0.0527		mg/L		105	75 - 125	1	20

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

Lab Sample ID: 400-166763-C-2-D MSD ^5
Matrix: Water
Analysis Batch: 433286

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 433043

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.00035	U	0.0500	0.0492		mg/L		98	75 - 125	0	20
Lithium	0.0014	I	0.0500	0.0538		mg/L		105	75 - 125	1	20
Molybdenum	0.0020	U	0.0500	0.0479		mg/L		96	75 - 125	2	20
Selenium	0.00071	U	0.0500	0.0488		mg/L		98	75 - 125	1	20
Thallium	0.000085	U	0.0100	0.00992		mg/L		99	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-432929/14-A
Matrix: Water
Analysis Batch: 433735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432929

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:28	03/18/19 14:11	1

Lab Sample ID: LCS 400-432929/15-A
Matrix: Water
Analysis Batch: 433735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00101		mg/L		100	80 - 120

Lab Sample ID: 400-166763-C-1-B MS
Matrix: Water
Analysis Batch: 433735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 432929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00202		mg/L		100	80 - 120

Lab Sample ID: 400-166763-C-1-C MSD
Matrix: Water
Analysis Batch: 433735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 432929

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00203		mg/L		101	80 - 120	0	20

Lab Sample ID: MB 400-432932/14-A
Matrix: Water
Analysis Batch: 433378

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432932

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/12/19 09:41	03/14/19 14:04	1

Lab Sample ID: LCS 400-432932/15-A
Matrix: Water
Analysis Batch: 433378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000904		mg/L		90	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-167030-N-9-B MS
Matrix: Water
Analysis Batch: 433378

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 432932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00166		mg/L		83	80 - 120

Lab Sample ID: 400-167030-N-9-C MSD
Matrix: Water
Analysis Batch: 433378

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 432932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00157	J3	mg/L		78	80 - 120	6	20

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

Lab Sample ID: MB 400-432107/1
Matrix: Water
Analysis Batch: 432107

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/05/19 09:01	1

Lab Sample ID: LCS 400-432107/2
Matrix: Water
Analysis Batch: 432107

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	292		mg/L		100	78 - 122

Lab Sample ID: 400-166713-A-2 DU
Matrix: Water
Analysis Batch: 432107

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	72		76.0		mg/L		5	5

Lab Sample ID: MB 400-432171/1
Matrix: Water
Analysis Batch: 432171

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/05/19 12:46	1

Lab Sample ID: LCS 400-432171/2
Matrix: Water
Analysis Batch: 432171

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	232		mg/L		79	78 - 122

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

Lab Sample ID: 400-166763-B-4 DU
Matrix: Water
Analysis Batch: 432171

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	440			448		mg/L				2	5

Lab Sample ID: MB 400-432185/1
Matrix: Water
Analysis Batch: 432185

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/05/19 13:58	1

Lab Sample ID: LCS 400-432185/2
Matrix: Water
Analysis Batch: 432185

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	254		mg/L		87	78 - 122		

Lab Sample ID: 400-166764-2 DU
Matrix: Water
Analysis Batch: 432185

Client Sample ID: MW-203
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	190			186		mg/L				3	5

Lab Sample ID: MB 400-432606/1
Matrix: Water
Analysis Batch: 432606

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/08/19 09:19	1

Lab Sample ID: LCS 400-432606/2
Matrix: Water
Analysis Batch: 432606

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	232		mg/L		79	78 - 122		

Lab Sample ID: 400-166764-9 DU
Matrix: Water
Analysis Batch: 432606

Client Sample ID: DUP-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	290			284		mg/L				2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-433142/6
Matrix: Water
Analysis Batch: 433142

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/13/19 11:02	1

Lab Sample ID: LCS 400-433142/7
Matrix: Water
Analysis Batch: 433142

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.9		mg/L		103	90 - 110

Lab Sample ID: MRL 400-433142/3
Matrix: Water
Analysis Batch: 433142

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.80	I	mg/L		90	50 - 150

Lab Sample ID: 400-166648-A-5 MS
Matrix: Water
Analysis Batch: 433142

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	94		10.0	102		mg/L		82	73 - 120

Lab Sample ID: 400-166648-A-5 MSD
Matrix: Water
Analysis Batch: 433142

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	94		10.0	102		mg/L		78	73 - 120	0	8

Lab Sample ID: MB 400-433709/5
Matrix: Water
Analysis Batch: 433709

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/18/19 10:10	1

Lab Sample ID: LCS 400-433709/6
Matrix: Water
Analysis Batch: 433709

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.5		mg/L		98	90 - 110

Lab Sample ID: MRL 400-433709/51
Matrix: Water
Analysis Batch: 433709

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.49	I	mg/L		74	50 - 150

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 400-166764-4 MS
Matrix: Water
Analysis Batch: 433709

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	19		10.0	28.5		mg/L		94	73 - 120		

Lab Sample ID: 400-166764-4 MSD
Matrix: Water
Analysis Batch: 433709

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	19		10.0	28.8		mg/L		97	73 - 120	1	8

Lab Sample ID: 400-166764-10 MS
Matrix: Water
Analysis Batch: 433709

Client Sample ID: MW-201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	75		10.0	78.7	J3	mg/L		40	73 - 120		

Lab Sample ID: 400-166764-10 MSD
Matrix: Water
Analysis Batch: 433709

Client Sample ID: MW-201
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	75		10.0	79.3	J3	mg/L		46	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-433548/3
Matrix: Water
Analysis Batch: 433548

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/15/19 16:40	1

Lab Sample ID: LCS 400-433548/4
Matrix: Water
Analysis Batch: 433548

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.76		mg/L		94	90 - 110		

Lab Sample ID: 660-93065-C-1 MS
Matrix: Water
Analysis Batch: 433548

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.83		1.00	1.47	J3	mg/L		64	75 - 125		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 660-93065-C-1 MSD
Matrix: Water
Analysis Batch: 433548

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.83		1.00	1.47	J3	mg/L		64	75 - 125	0	4

Lab Sample ID: 400-166764-4 DU
Matrix: Water
Analysis Batch: 433548

Client Sample ID: MW-205
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	I	0.0600	I J3	mg/L		15	4

Lab Sample ID: MB 400-433828/3
Matrix: Water
Analysis Batch: 433828

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 09:35	1

Lab Sample ID: LCS 400-433828/4
Matrix: Water
Analysis Batch: 433828

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.91		mg/L		98	90 - 110

Lab Sample ID: 240-109006-C-2 MS
Matrix: Water
Analysis Batch: 433828

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.22		1.00	1.29		mg/L		107	75 - 125

Lab Sample ID: 240-109006-C-2 MSD
Matrix: Water
Analysis Batch: 433828

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.22		1.00	1.29		mg/L		107	75 - 125	0	4

Lab Sample ID: 400-166763-B-1 DU
Matrix: Water
Analysis Batch: 433828

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-433223/6
Matrix: Water
Analysis Batch: 433223

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/13/19 13:35	1

Lab Sample ID: LCS 400-433223/7
Matrix: Water
Analysis Batch: 433223

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.1		mg/L		94	90 - 110

Lab Sample ID: MRL 400-433223/3
Matrix: Water
Analysis Batch: 433223

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.40	I	mg/L		88	50 - 150

Lab Sample ID: 400-166648-A-5 MS
Matrix: Water
Analysis Batch: 433223

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	150		10.0	151	J3	mg/L		-5	77 - 128

Lab Sample ID: 400-166648-A-5 MSD
Matrix: Water
Analysis Batch: 433223

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	150		10.0	154	J3	mg/L		27	77 - 128	2	5

Lab Sample ID: 400-166857-D-1 MS
Matrix: Water
Analysis Batch: 433223

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.6	I	10.0	10.9		mg/L		93	77 - 128

Lab Sample ID: 400-166857-D-1 MSD
Matrix: Water
Analysis Batch: 433223

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.6	I	10.0	10.8		mg/L		92	77 - 128	1	5

Lab Sample ID: MB 400-433751/6
Matrix: Water
Analysis Batch: 433751

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/18/19 15:05	1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: LCS 400-433751/7
Matrix: Water
Analysis Batch: 433751

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-433751/3
Matrix: Water
Analysis Batch: 433751

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.72	I	mg/L		74	50 - 150

Lab Sample ID: 400-166763-B-3 MS
Matrix: Water
Analysis Batch: 433751

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	35		10.0	43.1		mg/L		83	77 - 128

Lab Sample ID: 400-166763-B-3 MSD
Matrix: Water
Analysis Batch: 433751

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	35		10.0	43.3		mg/L		86	77 - 128	1	5

Lab Sample ID: 400-166763-B-7 MS
Matrix: Water
Analysis Batch: 433751

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.4		10.0	17.4		mg/L		100	77 - 128

Lab Sample ID: 400-166763-B-7 MSD
Matrix: Water
Analysis Batch: 433751

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	7.4		10.0	17.5		mg/L		101	77 - 128	1	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82559-23630.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-166764 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	2/28/19	1005	G	Water			X	X	X	X		
[redacted]				Water								
[redacted]				Water								
MW-203	3/1/19	1035		Water								
MW-204	2/28/19	1355		Water								
MW-205	2/28/19	0905		Water								
MW-206	2/28/19	1055		Water								
Dup-02	2/28/19	0805		Water								
~~Field~~ FB-02	3/1/19	1037		Water								
EB-02	3/1/19	1105	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/1/19 1900	RDH	B. Hagendorfer	3-1-19 1900	RDH
2	B. Hagendorfer	3-2-19 0930	RDH			
3					3-7-19 0930	TA-PEN

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.9°C, 1.0°C IR7

Ver: 01/16/2019

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82559-23630.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card
Email: kristi.mitchell@nexteraenergy.com	WO #:
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-166764 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
[redacted] Dup-05	3/5/19	0830	G	Water			X	X	X	X		
MW-201	3/5/19	0930	G	Water			X	X	X	X		
MW-202	3/5/19	1120	G	Water			X	X	X	X		
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 3/6/19 1635	Company RDH	Received by: Kathy R Avery	Date/Time: 3-6-19 1635	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1, 0.7 - IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166764-1
SDG Number: Gypsum Storage Area

Login Number: 166764
List Number: 1
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C, 1.0°C IR-7, 1.1°C, 0.7°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-1
SDG: Gypsum Storage Area

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-166764-2
Laboratory Sample Delivery Group: Gypsum Storage Area
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/15/2019 3:55:28 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-166764-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-166764-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-418846. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-05 (400-166764-9), MW-201 (400-166764-10), MW-202 (400-166764-11), (LCS 160-418846/1-A), (MB 160-418846/18-A), (440-235151-B-4-A), (440-235151-A-4-A MS) and (440-235151-B-4-B MSD)

Method(s) 9315: Ra-226 Prep Batch 160-418219. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-166764-1), MW-203 (400-166764-2), MW-204 (400-166764-3), MW-205 (400-166764-4), MW-206 (400-166764-5), DUP-02 (400-166764-6), FB-02 (400-166764-7), EB-02 (400-166764-8), (LCS 160-418219/1-A), (MB 160-418219/24-A), (440-235076-D-1-A), (440-235076-A-1-B MS) and (440-235076-A-1-C MSD)

Method(s) 9320: Ra-228 Prep Batch 160-418851. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-05 (400-166764-9), MW-201 (400-166764-10), MW-202 (400-166764-11), (LCS 160-418851/1-A), (MB 160-418851/18-A), (440-235151-B-4-C), (440-235151-A-4-B MS) and (440-235151-B-4-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-418231. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-166764-1), MW-203 (400-166764-2), MW-204 (400-166764-3), MW-205 (400-166764-4), MW-206 (400-166764-5), DUP-02 (400-166764-6), FB-02 (400-166764-7), EB-02 (400-166764-8), (LCS 160-418231/1-A), (MB 160-418231/24-A), (440-235076-D-1-B), (440-235076-A-1-D MS) and (440-235076-A-1-E MSD)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166764-1	MW-200	Water	02/28/19 10:05	03/02/19 09:30
400-166764-2	MW-203	Water	03/01/19 10:35	03/02/19 09:30
400-166764-3	MW-204	Water	02/28/19 13:55	03/02/19 09:30
400-166764-4	MW-205	Water	02/28/19 09:05	03/02/19 09:30
400-166764-5	MW-206	Water	02/28/19 10:55	03/02/19 09:30
400-166764-6	DUP-02	Water	02/28/19 08:05	03/02/19 09:30
400-166764-7	FB-02	Water	03/01/19 10:37	03/02/19 09:30
400-166764-8	EB-02	Water	03/01/19 11:05	03/02/19 09:30
400-166764-9	DUP-05	Water	03/05/19 08:30	03/06/19 16:35
400-166764-10	MW-201	Water	03/05/19 09:30	03/06/19 16:35
400-166764-11	MW-202	Water	03/05/19 11:20	03/06/19 16:35

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 02/28/19 10:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-1
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.47		0.361	0.540	1.00	0.111	pCi/L	03/08/19 09:27	04/02/19 21:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.24		0.519	0.708	1.00	0.381	pCi/L	03/08/19 11:06	03/27/19 08:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/08/19 11:06*	*03/27/19 08:59*	*1*
Y Carrier	*85.2*		*40 - 110*	*03/08/19 11:06*	*03/27/19 08:59*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	9.70		0.632	0.890	5.00	0.381	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-203
Date Collected: 03/01/19 10:35
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.61		0.229	0.271	1.00	0.102	pCi/L	03/08/19 09:27	04/02/19 23:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*03/08/19 09:27*	*04/02/19 23:11*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.46		0.541	0.739	1.00	0.400	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*87.1*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.07		0.587	0.787	5.00	0.400	pCi/L		04/14/19 07:25	1

Client Sample ID: MW-204

Date Collected: 02/28/19 13:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.912		0.172	0.190	1.00	0.0980	pCi/L	03/08/19 09:27	04/02/19 21:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	10.5		0.712	1.20	1.00	0.455	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*89.0*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	11.4		0.732	1.21	5.00	0.455	pCi/L		04/14/19 07:25	1

Client Sample ID: MW-205

Date Collected: 02/28/19 09:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.31		0.208	0.239	1.00	0.0935	pCi/L	03/08/19 09:27	04/02/19 23:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/08/19 09:27*	*04/02/19 23:20*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.97		0.364	0.407	1.00	0.406	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*89.3*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.28		0.419	0.472	5.00	0.406	pCi/L		04/14/19 07:25	1

Client Sample ID: MW-206

Date Collected: 02/28/19 10:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.97		0.313	0.412	1.00	0.0962	pCi/L	03/08/19 09:27	04/02/19 21:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.07		0.520	0.698	1.00	0.426	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*89.7*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	8.04		0.607	0.811	5.00	0.426	pCi/L		04/14/19 07:25	1

Client Sample ID: DUP-02

Date Collected: 02/28/19 08:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.22		0.215	0.241	1.00	0.116	pCi/L	03/08/19 09:27	04/02/19 21:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.56		0.378	0.404	1.00	0.461	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*88.2*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.77		0.435	0.470	5.00	0.461	pCi/L		04/14/19 07:25	1

Client Sample ID: FB-02

Date Collected: 03/01/19 10:37
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00228	U	0.0355	0.0355	1.00	0.0795	pCi/L	03/08/19 09:27	04/02/19 21:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.194	U	0.238	0.239	1.00	0.394	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*86.7*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.196	U	0.241	0.242	5.00	0.394	pCi/L		04/14/19 07:25	1

Client Sample ID: EB-02

Date Collected: 03/01/19 11:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0517	U	0.0564	0.0566	1.00	0.0883	pCi/L	03/08/19 09:27	04/02/19 21:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/08/19 09:27*	*04/02/19 21:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.225	0.225	1.00	0.371	pCi/L	03/08/19 11:06	03/27/19 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*
Y Carrier	*89.0*		*40 - 110*	*03/08/19 11:06*	*03/27/19 09:00*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.242	U	0.232	0.232	5.00	0.371	pCi/L		04/14/19 07:25	1

Client Sample ID: DUP-05

Date Collected: 03/05/19 08:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.18		0.247	0.315	1.00	0.0812	pCi/L	03/12/19 11:02	04/03/19 13:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*40 - 110*	*03/12/19 11:02*	*04/03/19 13:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.71		0.581	0.783	1.00	0.445	pCi/L	03/12/19 11:38	03/21/19 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:01*	*1*
Y Carrier	*80.7*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.88		0.631	0.844	5.00	0.445	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-201
Date Collected: 03/05/19 09:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.22		0.241	0.313	1.00	0.0733	pCi/L	03/12/19 11:02	04/03/19 13:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/12/19 11:02*	*04/03/19 13:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.89		0.599	0.808	1.00	0.425	pCi/L	03/12/19 11:38	03/21/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:02*	*1*
Y Carrier	*74.0*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	8.11		0.646	0.867	5.00	0.425	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-202
Date Collected: 03/05/19 11:20
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-11
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.924		0.152	0.174	1.00	0.0900	pCi/L	03/12/19 11:02	04/03/19 13:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*03/12/19 11:02*	*04/03/19 13:43*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.25		0.311	0.331	1.00	0.362	pCi/L	03/12/19 11:38	03/21/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:02*	*1*
Y Carrier	*81.9*		*40 - 110*	*03/12/19 11:38*	*03/21/19 09:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.17		0.346	0.374	5.00	0.362	pCi/L		04/14/19 07:25	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Qualifiers

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Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-200
Date Collected: 02/28/19 10:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422416	04/02/19 21:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 08:59	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: MW-203
Date Collected: 03/01/19 10:35
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422416	04/02/19 23:11	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: MW-204
Date Collected: 02/28/19 13:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422416	04/02/19 21:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: MW-205
Date Collected: 02/28/19 09:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422365	04/02/19 23:20	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: MW-206
Date Collected: 02/28/19 10:55
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422365	04/02/19 21:25	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: DUP-02
Date Collected: 02/28/19 08:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422365	04/02/19 21:25	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: FB-02
Date Collected: 03/01/19 10:37
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422365	04/02/19 21:25	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: EB-02
Date Collected: 03/01/19 11:05
Date Received: 03/02/19 09:30

Lab Sample ID: 400-166764-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418219	03/08/19 09:27	HET	TAL SL
Total/NA	Analysis	9315		1	422365	04/02/19 21:25	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418231	03/08/19 11:06	HET	TAL SL
Total/NA	Analysis	9320		1	421367	03/27/19 09:00	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Client Sample ID: DUP-05
Date Collected: 03/05/19 08:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418846	03/12/19 11:02	LTC	TAL SL
Total/NA	Analysis	9315		1	422457	04/03/19 13:42	CDR	TAL SL
Total/NA	Prep	PrecSep_0			418851	03/12/19 11:38	LTC	TAL SL
Total/NA	Analysis	9320		1	420408	03/21/19 09:01	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: MW-201
Date Collected: 03/05/19 09:30
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418846	03/12/19 11:02	LTC	TAL SL
Total/NA	Analysis	9315		1	422476	04/03/19 13:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			418851	03/12/19 11:38	LTC	TAL SL
Total/NA	Analysis	9320		1	420407	03/21/19 09:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: MW-202
Date Collected: 03/05/19 11:20
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166764-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			418846	03/12/19 11:02	LTC	TAL SL
Total/NA	Analysis	9315		1	422476	04/03/19 13:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			418851	03/12/19 11:38	LTC	TAL SL
Total/NA	Analysis	9320		1	420407	03/21/19 09:02	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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Prep Batch: 418219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	PrecSep-21	
400-166764-2	MW-203	Total/NA	Water	PrecSep-21	
400-166764-3	MW-204	Total/NA	Water	PrecSep-21	
400-166764-4	MW-205	Total/NA	Water	PrecSep-21	
400-166764-5	MW-206	Total/NA	Water	PrecSep-21	
400-166764-6	DUP-02	Total/NA	Water	PrecSep-21	
400-166764-7	FB-02	Total/NA	Water	PrecSep-21	
400-166764-8	EB-02	Total/NA	Water	PrecSep-21	
MB 160-418219/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-418219/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
440-235076-A-1-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	
440-235076-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 418231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-1	MW-200	Total/NA	Water	PrecSep_0	
400-166764-2	MW-203	Total/NA	Water	PrecSep_0	
400-166764-3	MW-204	Total/NA	Water	PrecSep_0	
400-166764-4	MW-205	Total/NA	Water	PrecSep_0	
400-166764-5	MW-206	Total/NA	Water	PrecSep_0	
400-166764-6	DUP-02	Total/NA	Water	PrecSep_0	
400-166764-7	FB-02	Total/NA	Water	PrecSep_0	
400-166764-8	EB-02	Total/NA	Water	PrecSep_0	
MB 160-418231/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-418231/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
440-235076-A-1-D MS	Matrix Spike	Total/NA	Water	PrecSep_0	
440-235076-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 418846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-9	DUP-05	Total/NA	Water	PrecSep-21	
400-166764-10	MW-201	Total/NA	Water	PrecSep-21	
400-166764-11	MW-202	Total/NA	Water	PrecSep-21	
MB 160-418846/18-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-418846/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
440-235151-A-4-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
440-235151-B-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 418851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166764-9	DUP-05	Total/NA	Water	PrecSep_0	
400-166764-10	MW-201	Total/NA	Water	PrecSep_0	
400-166764-11	MW-202	Total/NA	Water	PrecSep_0	
MB 160-418851/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-418851/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
440-235151-A-4-B MS	Matrix Spike	Total/NA	Water	PrecSep_0	
440-235151-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-418219/24-A
Matrix: Water
Analysis Batch: 422416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418219

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05094	U	0.0618	0.0619	1.00	0.101	pCi/L	03/08/19 09:27	04/02/19 23:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/08/19 09:27*	*04/02/19 23:12*	*1*

Lab Sample ID: LCS 160-418219/1-A
Matrix: Water
Analysis Batch: 422416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 418219

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.018		0.969	1.00	0.0778	pCi/L	79	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.8*		*40 - 110*

Lab Sample ID: 440-235076-A-1-B MS
Matrix: Water
Analysis Batch: 422365

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 418219

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	-0.0204	U	15.1	11.93		1.30	1.00	0.127	pCi/L	79	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*83.8*		*40 - 110*

Lab Sample ID: 440-235076-A-1-C MSD
Matrix: Water
Analysis Batch: 422455

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 418219

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	-0.0204	U	15.1	12.93		1.41	1.00	0.149	pCi/L	85	75 - 138	0.37	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*90.9*		*40 - 110*

Lab Sample ID: MB 160-418846/18-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418846

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01479	U	0.0322	0.0322	1.00	0.0824	pCi/L	03/12/19 11:02	04/03/19 15:54	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-418846/18-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418846

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110	03/12/19 11:02	04/03/19 15:54	1

Lab Sample ID: LCS 160-418846/1-A
Matrix: Water
Analysis Batch: 422457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 418846

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.470		0.987	1.00	0.0865	pCi/L	83	68 - 137		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	102		40 - 110

Lab Sample ID: 440-235151-A-4-A MS
Matrix: Water
Analysis Batch: 422456

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 418846

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0651	U	11.4	8.954		0.941	1.00	0.0854	pCi/L	78	75 - 138		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.3		40 - 110

Lab Sample ID: 440-235151-B-4-B MSD
Matrix: Water
Analysis Batch: 422456

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 418846

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0651	U	11.4	9.407		0.992	1.00	0.0877	pCi/L	82	75 - 138	0.23	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	84.1		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-418231/24-A
Matrix: Water
Analysis Batch: 421368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418231

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1474	U	0.229	0.230	1.00	0.385	pCi/L	03/08/19 11:06	03/27/19 09:02	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110	03/08/19 11:06	03/27/19 09:02	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-418231/24-A
Matrix: Water
Analysis Batch: 421368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418231

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	85.2		40 - 110	03/08/19 11:06	03/27/19 09:02	1

Lab Sample ID: LCS 160-418231/1-A
Matrix: Water
Analysis Batch: 421367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 418231

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.36	9.011		1.04	1.00	0.333	pCi/L	96	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	88.2		40 - 110

Lab Sample ID: 440-235076-A-1-D MS
Matrix: Water
Analysis Batch: 421367

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 418231

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.275	U	12.5	12.65		1.50	1.00	0.568	pCi/L	99	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	83.8		40 - 110
Y Carrier	88.2		40 - 110

Lab Sample ID: 440-235076-A-1-E MSD
Matrix: Water
Analysis Batch: 421367

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 418231

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.275	U	12.5	11.86		1.41	1.00	0.504	pCi/L	93	45 - 150	0.27	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: MB 160-418851/18-A
Matrix: Water
Analysis Batch: 420416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418851

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2724	U	0.256	0.257	1.00	0.413	pCi/L	03/12/19 11:38	03/21/19 09:12	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-418851/18-A
Matrix: Water
Analysis Batch: 420416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 418851

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110	03/12/19 11:38	03/21/19 09:12	1
Y Carrier	82.6		40 - 110	03/12/19 11:38	03/21/19 09:12	1

Lab Sample ID: LCS 160-418851/1-A
Matrix: Water
Analysis Batch: 420408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 418851

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.38	10.28		1.17	1.00	0.358	pCi/L	110	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	79.3		40 - 110

Lab Sample ID: 440-235151-A-4-B MS
Matrix: Water
Analysis Batch: 420416

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 418851

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.589		9.37	9.874		1.15	1.00	0.387	pCi/L	99	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.3		40 - 110
Y Carrier	81.1		40 - 110

Lab Sample ID: 440-235151-B-4-D MSD
Matrix: Water
Analysis Batch: 420416

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 418851

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.589		9.37	11.11		1.29	1.00	0.412	pCi/L	112	45 - 150	0.51	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	84.1		40 - 110
Y Carrier	81.5		40 - 110

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-166750-A-3 DU
Matrix: Water
Analysis Batch: 423568

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	3.76			3.589		0.482	5.00	0.339	pCi/L			0.18	

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82559-23630.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

400-166764 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	2/28/19	1005	G	Water			X	X	X	X		
[redacted]				Water								
[redacted]				Water								
MW-203	3/1/19	1035		Water								
MW-204	2/28/19	1355		Water								
MW-205	2/28/19	0905		Water								
MW-206	2/28/19	1055		Water								
Dup-02	2/28/19	0805		Water								
~~Field~~ FB-02	3/1/19	1037		Water								
EB-02	3/1/19	1105	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/1/19 1900	RDH	B. Hagendorfer	3-1-19 1900	RDH
2	B. Hagendorfer	3-2-19 0930	RDH			
3					3-7-19 0930	TA-PEN

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.9°C, 1.0°C IR7

Ver: 01/16/2019

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82559-23630.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist Gypsum Storage Area	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-166764 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
[redacted] Dup-05	3/5/19	0830	G	Water			X	X	X	Y		
MW-201	3/5/19	0930	G	Water			X	X	X	Y		
MW-202	3/5/19	1120	G	Water			X	X	X	Y		
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	3/6/19 1635	RDH	Kathy R Avery	3-6-19 1635	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1, 0.7 - IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166764-2
SDG Number: Gypsum Storage Area

Login Number: 166764
List Number: 1
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C, 1.0°C IR-7, 1.1°C, 0.7°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166764-2
SDG Number: Gypsum Storage Area

Login Number: 166764
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/05/19 05:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166764-2
SDG Number: Gypsum Storage Area

Login Number: 166764
List Number: 3
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/08/19 03:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166764-2
SDG: Gypsum Storage Area

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19 *
Florida	NELAP	4	E87689	06-30-19
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-166941-1
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/9/2019 9:17:48 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-166941-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-166941-1

Metals
Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 433805 and analytical batch 433981 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The post digestion spike % recovery for Calcium associated with batch 433981 was outside of control limits. The following sample is impacted: (400-166941-C-1-A PDS ^5).

Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-166941-1), GSA-2S (400-166941-2) and DUP-06 (400-166941-5). Elevated reporting limits (RLs) are provided.

General Chemistry
Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 433876 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-167121-A-7 MS) and (400-167121-A-7 MSD)

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-166941-1), GSA-2S (400-166941-2), DUP-06 (400-166941-5), (400-167121-A-7), (400-167121-A-7 MS) and (400-167121-A-7 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample, the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-167243-A-1 MS) and (400-167243-A-1 MSD)

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-166941-1), GSA-2S (400-166941-2), DUP-06 (400-166941-5), (400-167243-A-1), (400-167243-A-1 MS) and (400-167243-A-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S — Lab Sample ID: 400-166941-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.050		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0055		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00050	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0017	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0027		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00015	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	10		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	220		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	1300		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	450		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	160		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	5.31				SU	1		Field Sampling	Total/NA

Client Sample ID: GSA-2S — Lab Sample ID: 400-166941-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	39		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00056	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.0011	I	0.0013	0.00071	mg/L	5		6020	Total Recoverable
Boron - DL	1.6		0.25	0.11	mg/L	25		6020	Total Recoverable
Total Dissolved Solids	240		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	56		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Sulfate	46		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.48				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-201D — Lab Sample ID: 400-166941-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00088	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0097		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - RA	0.028	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	76		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	2.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: PZ-201D (Continued) — Lab Sample ID: 400-166941-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.74				SU	1		Field Sampling	Total/NA

Client Sample ID: GE-1D — Lab Sample ID: 400-166941-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0019	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00049	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0028	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	22		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-06 — Lab Sample ID: 400-166941-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00047	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.051		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Cobalt	0.0057		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00053	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0016	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0026		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00015	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Boron - DL	11		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium - DL	220		2.5	1.3	mg/L	50		6020	Total Recoverable
Total Dissolved Solids	1300		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	450		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	160		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	5.31				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-07 — Lab Sample ID: 400-166941-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.019		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	5.5		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-07 (Continued)

Lab Sample ID: 400-166941-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0018	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00049	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0022	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Boron - RA	0.026	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	22		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.4	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166941-1	PZ-200S	Water	03/05/19 16:10	03/06/19 16:35
400-166941-2	GSA-2S	Water	03/06/19 12:10	03/06/19 16:35
400-166941-3	PZ-201D	Water	03/05/19 13:12	03/06/19 16:35
400-166941-4	GE-1D	Water	03/06/19 14:32	03/06/19 16:35
400-166941-5	DUP-06	Water	03/05/19 17:10	03/06/19 16:35
400-166941-6	DUP-07	Water	03/06/19 13:32	03/06/19 16:35

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S

Date Collected: 03/05/19 16:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 16:53	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 16:53	5
Barium	**0.050**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 16:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 16:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 16:53	5
Cobalt	**0.0055**		0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 16:53	5
Lead	**0.00050**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 16:53	5
Lithium	**0.0017**	**I**	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 16:53	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 16:53	5
Selenium	**0.0027**		0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 16:53	5
Thallium	**0.00015**	**I**	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 16:53	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**10**		0.50	0.21	mg/L		03/19/19 12:10	03/20/19 16:26	50
Calcium	**220**		2.5	1.3	mg/L		03/19/19 12:10	03/20/19 16:26	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 13:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10	6.8	mg/L			03/08/19 09:19	1
Chloride	**450**		40	28	mg/L			03/19/19 14:28	20
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/19/19 13:55	1
Sulfate	**160**		50	14	mg/L			03/20/19 10:54	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.31**				SU			03/05/19 16:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: GSA-2S

Date Collected: 03/06/19 12:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 17:12	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 17:12	5
Barium	**0.031**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 17:12	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:12	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:12	5
Calcium	**39**		0.25	0.13	mg/L		03/19/19 12:10	03/19/19 17:12	5
Cobalt	**0.0010**	**I**	0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 17:12	5
Lead	**0.00056**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 17:12	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 17:12	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 17:12	5
Selenium	**0.0011**	**I**	0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 17:12	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 17:12	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.6**		0.25	0.11	mg/L		03/19/19 12:10	03/20/19 16:29	25

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 13:50	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**240**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**56**		4.0	2.8	mg/L			03/19/19 14:31	2
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 13:59	1
Sulfate	**46**		10	2.8	mg/L			03/20/19 10:58	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.48**				SU			03/06/19 12:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-201D

Date Collected: 03/05/19 13:12
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 17:16	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 17:16	5
Barium	**0.062**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 17:16	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:16	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:16	5
Calcium	**5.1**		0.25	0.13	mg/L		03/19/19 12:10	03/19/19 17:16	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 17:16	5
Lead	**0.00088**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 17:16	5
Lithium	**0.0097**		0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 17:16	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 17:16	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 17:16	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 17:16	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.028**	**I**	0.050	0.021	mg/L		03/19/19 12:10	03/20/19 16:33	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 13:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**76**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**2.7**		2.0	1.4	mg/L			03/19/19 13:45	1
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			03/19/19 14:03	1
Sulfate	**1.5**	**I**	5.0	1.4	mg/L			03/20/19 10:20	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.74**				SU			03/05/19 13:12	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D

Date Collected: 03/06/19 14:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 17:37	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 17:37	5
Barium	**0.019**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 17:37	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:37	5
Boron	0.021	U	0.050	0.021	mg/L		03/19/19 12:10	03/19/19 17:37	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:37	5
Calcium	**5.6**		0.25	0.13	mg/L		03/19/19 12:10	03/19/19 17:37	5
Cobalt	**0.0019**	**I**	0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 17:37	5
Lead	**0.00049**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 17:37	5
Lithium	**0.0028**	**I**	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 17:37	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 17:37	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 17:37	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 17:37	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 13:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**22**		2.0	1.4	mg/L			03/19/19 13:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 14:07	1
Sulfate	**2.5**	**I**	5.0	1.4	mg/L			03/20/19 10:20	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.87**				SU			03/06/19 14:32	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-06

Date Collected: 03/05/19 17:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 17:41	5
Arsenic	**0.00047**	**I**	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 17:41	5
Barium	**0.051**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 17:41	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:41	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:41	5
Cobalt	**0.0057**		0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 17:41	5
Lead	**0.00053**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 17:41	5
Lithium	**0.0016**	**I**	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 17:41	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 17:41	5
Selenium	**0.0026**		0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 17:41	5
Thallium	**0.00015**	**I**	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 17:41	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**11**		0.50	0.21	mg/L		03/19/19 12:10	03/20/19 16:36	50
Calcium	**220**		2.5	1.3	mg/L		03/19/19 12:10	03/20/19 16:36	50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 14:21	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10	6.8	mg/L			03/08/19 09:19	1
Chloride	**450**		40	28	mg/L			03/19/19 14:28	20
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			03/19/19 14:10	1
Sulfate	**160**		50	14	mg/L			03/20/19 10:54	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.31**				SU			03/05/19 17:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-07

Date Collected: 03/06/19 13:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 17:44	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 17:44	5
Barium	**0.019**		0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 17:44	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:44	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 17:44	5
Calcium	**5.5**		0.25	0.13	mg/L		03/19/19 12:10	03/19/19 17:44	5
Cobalt	**0.0018**	**I**	0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 17:44	5
Lead	**0.00049**	**I**	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 17:44	5
Lithium	**0.0022**	**I**	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 17:44	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 17:44	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 17:44	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 17:44	5

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.026**	**I**	0.050	0.021	mg/L		03/19/19 12:10	03/20/19 16:40	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 14:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			03/08/19 09:19	1
Chloride	**22**		2.0	1.4	mg/L			03/19/19 13:52	1
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 14:14	1
Sulfate	**2.4**	**I**	5.0	1.4	mg/L			03/20/19 10:20	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.87**				SU			03/06/19 13:32	1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S
Date Collected: 03/05/19 16:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 16:53	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	434112	03/20/19 16:26	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	433871	03/19/19 14:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433876	03/19/19 13:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	433957	03/20/19 10:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435647	03/05/19 16:10	AW	TAL PEN

Client Sample ID: GSA-2S
Date Collected: 03/06/19 12:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 17:12	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	25	434112	03/20/19 16:29	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 13:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	433871	03/19/19 14:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433876	03/19/19 13:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	433957	03/20/19 10:58	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435647	03/06/19 12:10	AW	TAL PEN

Client Sample ID: PZ-201D
Date Collected: 03/05/19 13:12
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 17:16	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434112	03/20/19 16:33	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433871	03/19/19 13:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433876	03/19/19 14:03	RRC	TAL PEN

Client Sample ID: PZ-201D
Date Collected: 03/05/19 13:12
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	435647	03/05/19 13:12	AW	TAL PEN

Client Sample ID: GE-1D
Date Collected: 03/06/19 14:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 17:37	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	433871	03/19/19 13:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433876	03/19/19 14:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	433957	03/20/19 10:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435647	03/06/19 14:32	AW	TAL PEN

Client Sample ID: DUP-06
Date Collected: 03/05/19 17:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 17:41	DRE	TAL PEN
Total Recoverable	Prep	3005A	DL		433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020	DL	50	434112	03/20/19 16:36	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 14:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	433871	03/19/19 14:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	433876	03/19/19 14:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	433957	03/20/19 10:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	435647	03/05/19 17:10	AW	TAL PEN

Client Sample ID: DUP-07
Date Collected: 03/06/19 13:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	433981	03/19/19 17:44	DRE	TAL PEN
Total Recoverable	Prep	3005A	RA		433805	03/19/19 12:10	DRE	TAL PEN
Total Recoverable	Analysis	6020	RA	5	434112	03/20/19 16:40	DRE	TAL PEN
Total/NA	Prep	7470A			433992	03/20/19 13:33	JAP	TAL PEN
Total/NA	Analysis	7470A		1	434199	03/21/19 14:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	432606	03/08/19 09:19	CLB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-07
Date Collected: 03/06/19 13:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-6
Matrix: Water

Total/NA	Analysis	SM 4500 F C	1	433876	03/19/19 14:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E	1	433957	03/20/19 10:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling	1	435647	03/06/19 13:32	AW	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 433805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total Recoverable	Water	3005A	
400-166941-1 - DL	PZ-200S	Total Recoverable	Water	3005A	
400-166941-2	GSA-2S	Total Recoverable	Water	3005A	
400-166941-2 - DL	GSA-2S	Total Recoverable	Water	3005A	
400-166941-3	PZ-201D	Total Recoverable	Water	3005A	
400-166941-3 - RA	PZ-201D	Total Recoverable	Water	3005A	
400-166941-4	GE-1D	Total Recoverable	Water	3005A	
400-166941-5	DUP-06	Total Recoverable	Water	3005A	
400-166941-5 - DL	DUP-06	Total Recoverable	Water	3005A	
400-166941-6	DUP-07	Total Recoverable	Water	3005A	
400-166941-6 - RA	DUP-07	Total Recoverable	Water	3005A	
MB 400-433805/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-433805/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-166941-1 MS	PZ-200S	Total Recoverable	Water	3005A	
400-166941-1 MSD	PZ-200S	Total Recoverable	Water	3005A	

Analysis Batch: 433981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total Recoverable	Water	6020	433805
400-166941-2	GSA-2S	Total Recoverable	Water	6020	433805
400-166941-3	PZ-201D	Total Recoverable	Water	6020	433805
400-166941-4	GE-1D	Total Recoverable	Water	6020	433805
400-166941-5	DUP-06	Total Recoverable	Water	6020	433805
400-166941-6	DUP-07	Total Recoverable	Water	6020	433805
MB 400-433805/1-A ^5	Method Blank	Total Recoverable	Water	6020	433805
LCS 400-433805/2-A	Lab Control Sample	Total Recoverable	Water	6020	433805
400-166941-1 MS	PZ-200S	Total Recoverable	Water	6020	433805
400-166941-1 MSD	PZ-200S	Total Recoverable	Water	6020	433805

Prep Batch: 433992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	7470A	
400-166941-2	GSA-2S	Total/NA	Water	7470A	
400-166941-3	PZ-201D	Total/NA	Water	7470A	
400-166941-4	GE-1D	Total/NA	Water	7470A	
400-166941-5	DUP-06	Total/NA	Water	7470A	
400-166941-6	DUP-07	Total/NA	Water	7470A	
MB 400-433992/13-A	Method Blank	Total/NA	Water	7470A	
LCS 400-433992/14-A	Lab Control Sample	Total/NA	Water	7470A	
400-167267-K-5-E MS	Matrix Spike	Total/NA	Water	7470A	
400-167267-K-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 434112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1 - DL	PZ-200S	Total Recoverable	Water	6020	433805
400-166941-2 - DL	GSA-2S	Total Recoverable	Water	6020	433805
400-166941-3 - RA	PZ-201D	Total Recoverable	Water	6020	433805
400-166941-5 - DL	DUP-06	Total Recoverable	Water	6020	433805
400-166941-6 - RA	DUP-07	Total Recoverable	Water	6020	433805

Metals

Analysis Batch: 434199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	7470A	433992
400-166941-2	GSA-2S	Total/NA	Water	7470A	433992
400-166941-3	PZ-201D	Total/NA	Water	7470A	433992
400-166941-4	GE-1D	Total/NA	Water	7470A	433992
400-166941-5	DUP-06	Total/NA	Water	7470A	433992
400-166941-6	DUP-07	Total/NA	Water	7470A	433992
MB 400-433992/13-A	Method Blank	Total/NA	Water	7470A	433992
LCS 400-433992/14-A	Lab Control Sample	Total/NA	Water	7470A	433992
400-167267-K-5-E MS	Matrix Spike	Total/NA	Water	7470A	433992
400-167267-K-5-F MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	433992

General Chemistry

Analysis Batch: 432606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	SM 2540C	
400-166941-2	GSA-2S	Total/NA	Water	SM 2540C	
400-166941-3	PZ-201D	Total/NA	Water	SM 2540C	
400-166941-4	GE-1D	Total/NA	Water	SM 2540C	
400-166941-5	DUP-06	Total/NA	Water	SM 2540C	
400-166941-6	DUP-07	Total/NA	Water	SM 2540C	
MB 400-432606/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-432606/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-166940-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 433871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	SM 4500 Cl- E	
400-166941-2	GSA-2S	Total/NA	Water	SM 4500 Cl- E	
400-166941-3	PZ-201D	Total/NA	Water	SM 4500 Cl- E	
400-166941-4	GE-1D	Total/NA	Water	SM 4500 Cl- E	
400-166941-5	DUP-06	Total/NA	Water	SM 4500 Cl- E	
400-166941-6	DUP-07	Total/NA	Water	SM 4500 Cl- E	
MB 400-433871/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-433871/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-433871/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-167121-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-167121-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-167121-A-7 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-167121-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 433876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	SM 4500 F C	
400-166941-2	GSA-2S	Total/NA	Water	SM 4500 F C	
400-166941-3	PZ-201D	Total/NA	Water	SM 4500 F C	
400-166941-4	GE-1D	Total/NA	Water	SM 4500 F C	
400-166941-5	DUP-06	Total/NA	Water	SM 4500 F C	
400-166941-6	DUP-07	Total/NA	Water	SM 4500 F C	
MB 400-433876/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-433876/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 433876 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-92964-C-5 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
660-92964-C-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
660-92964-C-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 433957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	SM 4500 SO4 E	
400-166941-2	GSA-2S	Total/NA	Water	SM 4500 SO4 E	
400-166941-3	PZ-201D	Total/NA	Water	SM 4500 SO4 E	
400-166941-4	GE-1D	Total/NA	Water	SM 4500 SO4 E	
400-166941-5	DUP-06	Total/NA	Water	SM 4500 SO4 E	
400-166941-6	DUP-07	Total/NA	Water	SM 4500 SO4 E	
MB 400-433957/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-433957/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-433957/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-167243-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167243-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-167399-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-167399-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 435647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	Field Sampling	
400-166941-2	GSA-2S	Total/NA	Water	Field Sampling	
400-166941-3	PZ-201D	Total/NA	Water	Field Sampling	
400-166941-4	GE-1D	Total/NA	Water	Field Sampling	
400-166941-5	DUP-06	Total/NA	Water	Field Sampling	
400-166941-6	DUP-07	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-433805/1-A ^5
Matrix: Water
Analysis Batch: 433981

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433805

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		03/19/19 12:10	03/19/19 16:42	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		03/19/19 12:10	03/19/19 16:42	5
Barium	0.00049	U	0.0025	0.00049	mg/L		03/19/19 12:10	03/19/19 16:42	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 16:42	5
Boron	0.021	U	0.050	0.021	mg/L		03/19/19 12:10	03/19/19 16:42	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		03/19/19 12:10	03/19/19 16:42	5
Calcium	0.13	U	0.25	0.13	mg/L		03/19/19 12:10	03/19/19 16:42	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		03/19/19 12:10	03/19/19 16:42	5
Lead	0.00035	U	0.0013	0.00035	mg/L		03/19/19 12:10	03/19/19 16:42	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		03/19/19 12:10	03/19/19 16:42	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		03/19/19 12:10	03/19/19 16:42	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		03/19/19 12:10	03/19/19 16:42	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		03/19/19 12:10	03/19/19 16:42	5

Lab Sample ID: LCS 400-433805/2-A
Matrix: Water
Analysis Batch: 433981

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0486		mg/L		97	80 - 120
Arsenic	0.0500	0.0508		mg/L		102	80 - 120
Barium	0.0500	0.0530		mg/L		106	80 - 120
Beryllium	0.0500	0.0480		mg/L		96	80 - 120
Boron	0.100	0.0990		mg/L		99	80 - 120
Cadmium	0.0500	0.0467		mg/L		93	80 - 120
Calcium	5.00	5.03		mg/L		101	80 - 120
Cobalt	0.0500	0.0496		mg/L		99	80 - 120
Lead	0.0500	0.0483		mg/L		97	80 - 120
Lithium	0.0500	0.0497		mg/L		99	80 - 120
Molybdenum	0.0500	0.0494		mg/L		99	80 - 120
Selenium	0.0500	0.0467		mg/L		93	80 - 120
Thallium	0.0100	0.00953		mg/L		95	80 - 120

Lab Sample ID: 400-166941-1 MS
Matrix: Water
Analysis Batch: 433981

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 433805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0496		mg/L		99	75 - 125
Arsenic	0.00046	U	0.0500	0.0524		mg/L		105	75 - 125
Barium	0.050		0.0500	0.105		mg/L		110	75 - 125
Beryllium	0.00034	U	0.0500	0.0482		mg/L		96	75 - 125
Boron	11	L	0.100	11.0	L J3	mg/L		291	75 - 125
Cadmium	0.00034	U	0.0500	0.0462		mg/L		92	75 - 125
Calcium	230	L	5.00	237	L J3	mg/L		181	75 - 125
Cobalt	0.0055		0.0500	0.0544		mg/L		98	75 - 125
Lead	0.00050	I	0.0500	0.0494		mg/L		98	75 - 125
Lithium	0.0017	I	0.0500	0.0498		mg/L		96	75 - 125
Molybdenum	0.0020	U	0.0500	0.0502		mg/L		100	75 - 125

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

Lab Sample ID: 400-166941-1 MS
Matrix: Water
Analysis Batch: 433981

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 433805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.0027		0.0500	0.0512		mg/L		97	75 - 125
Thallium	0.00015	I	0.0100	0.00956		mg/L		94	75 - 125

Lab Sample ID: 400-166941-1 MSD
Matrix: Water
Analysis Batch: 433981

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 433805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0480		mg/L		96	75 - 125	3	20
Arsenic	0.00046	U	0.0500	0.0513		mg/L		103	75 - 125	2	20
Barium	0.050		0.0500	0.103		mg/L		106	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0479		mg/L		96	75 - 125	1	20
Boron	11	L	0.100	10.9	L J3	mg/L		272	75 - 125	0	20
Cadmium	0.00034	U	0.0500	0.0458		mg/L		92	75 - 125	1	20
Calcium	230	L	5.00	230	J3 L	mg/L		42	75 - 125	3	20
Cobalt	0.0055		0.0500	0.0533		mg/L		96	75 - 125	2	20
Lead	0.00050	I	0.0500	0.0491		mg/L		97	75 - 125	1	20
Lithium	0.0017	I	0.0500	0.0495		mg/L		96	75 - 125	0	20
Molybdenum	0.0020	U	0.0500	0.0483		mg/L		97	75 - 125	4	20
Selenium	0.0027		0.0500	0.0502		mg/L		95	75 - 125	2	20
Thallium	0.00015	I	0.0100	0.00948		mg/L		93	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-433992/13-A
Matrix: Water
Analysis Batch: 434199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433992

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		03/20/19 13:33	03/21/19 13:13	1

Lab Sample ID: LCS 400-433992/14-A
Matrix: Water
Analysis Batch: 434199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000958		mg/L		95	80 - 120

Lab Sample ID: 400-167267-K-5-E MS
Matrix: Water
Analysis Batch: 434199

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 433992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00191		mg/L		95	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-167267-K-5-F MSD
Matrix: Water
Analysis Batch: 434199

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 433992

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00186		mg/L		92	80 - 120	3	20

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

Lab Sample ID: MB 400-432606/1
Matrix: Water
Analysis Batch: 432606

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			03/08/19 09:19	1

Lab Sample ID: LCS 400-432606/2
Matrix: Water
Analysis Batch: 432606

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	232		mg/L		79	78 - 122

Lab Sample ID: 400-166940-A-4 DU
Matrix: Water
Analysis Batch: 432606

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	230		222		mg/L		3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-433871/6
Matrix: Water
Analysis Batch: 433871

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			03/19/19 13:42	1

Lab Sample ID: LCS 400-433871/7
Matrix: Water
Analysis Batch: 433871

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.5		mg/L		108	90 - 110

Lab Sample ID: MRL 400-433871/3
Matrix: Water
Analysis Batch: 433871

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.80	I	mg/L		90	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-167121-A-1 MS
Matrix: Water
Analysis Batch: 433871

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	19		10.0	28.6		mg/L		99	73 - 120		

Lab Sample ID: 400-167121-A-1 MSD
Matrix: Water
Analysis Batch: 433871

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	19		10.0	28.6		mg/L		99	73 - 120	0	8

Lab Sample ID: 400-167121-A-7 MS
Matrix: Water
Analysis Batch: 433871

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	62		10.0	70.1		mg/L		79	73 - 120		

Lab Sample ID: 400-167121-A-7 MSD
Matrix: Water
Analysis Batch: 433871

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	62		10.0	70.6		mg/L		84	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-433876/3
Matrix: Water
Analysis Batch: 433876

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			03/19/19 13:38	1

Lab Sample ID: LCS 400-433876/4
Matrix: Water
Analysis Batch: 433876

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.83		mg/L		96	90 - 110		

Lab Sample ID: 660-92964-C-5 MS
Matrix: Water
Analysis Batch: 433876

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.23		1.00	0.780	J3	mg/L		55	75 - 125		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 660-92964-C-5 MSD
Matrix: Water
Analysis Batch: 433876

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.23		1.00	0.780	J3	mg/L		55	75 - 125	0	4

Lab Sample ID: 660-92964-C-4 DU
Matrix: Water
Analysis Batch: 433876

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.14		0.140		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-433957/6
Matrix: Water
Analysis Batch: 433957

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			03/20/19 10:13	1

Lab Sample ID: LCS 400-433957/7
Matrix: Water
Analysis Batch: 433957

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.8		mg/L		98	90 - 110

Lab Sample ID: MRL 400-433957/3
Matrix: Water
Analysis Batch: 433957

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.40	I	mg/L		88	50 - 150

Lab Sample ID: 400-167243-A-1 MS
Matrix: Water
Analysis Batch: 433957

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	44		10.0	54.1		mg/L		104	77 - 128

Lab Sample ID: 400-167243-A-1 MSD
Matrix: Water
Analysis Batch: 433957

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	44		10.0	53.8		mg/L		101	77 - 128	1	5

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-167399-A-1 MS
Matrix: Water
Analysis Batch: 433957

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	17		10.0	27.0		mg/L		101	77 - 128		

Lab Sample ID: 400-167399-A-1 MSD
Matrix: Water
Analysis Batch: 433957

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	17		10.0	27.1		mg/L		102	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Bill Heyendorfer / Colton EVANS	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82560-23631.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-166941 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
PZ-200S	3-5-19	1610	G	Water			X	X	X			
PZ-200D				Water								
GSA-2S	3-6-19	1210	G	Water			X	X	X			
PZ-201D	3-5-19	1312	G	Water			X	X	X			
GE-4DR				Water								
GE-1D	3-6-19	1432	G	Water			X	X	X			
DWP-06	3-5-19	1710	G	Water			X	X	X			
DWP-07	3-6-19	1332	G	Water			X	X	X			
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/6/19 1635	RDH	Kathryn P Avery	3-6-19 1635	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7, 1.1 IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166941-1
SDG Number: GSA Delineation Sampling

Login Number: 166941
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C, 1.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-1
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-166941-2
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/15/2019 4:29:37 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Job ID: 400-166941-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-166941-2

RAD

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-419090. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-06 (400-166941-5), DUP-07 (400-166941-6), (LCS 160-419090/1-A), (MB 160-419090/24-A), (160-33070-J-11-E), (160-33070-I-11-A MS) and (160-33070-B-11-B MSD)

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-419103. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-166941-1), GSA-2S (400-166941-2), PZ-201D (400-166941-3), GE-1D (400-166941-4), (LCS 160-419103/1-A), (MB 160-419103/23-A), (490-169432-E-1-A) and (490-169432-F-1-A DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-419136. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-166941-1), GSA-2S (400-166941-2), PZ-201D (400-166941-3), GE-1D (400-166941-4), (LCS 160-419136/1-A), (MB 160-419136/23-A), (490-169432-E-1-B) and (490-169432-F-1-B DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-419100. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DUP-06 (400-166941-5), DUP-07 (400-166941-6), (LCS 160-419100/1-A), (MB 160-419100/24-A), (160-33070-J-11-F), (160-33070-I-11-B MS) and (160-33070-B-11-C MSD)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-166941-1	PZ-200S	Water	03/05/19 16:10	03/06/19 16:35
400-166941-2	GSA-2S	Water	03/06/19 12:10	03/06/19 16:35
400-166941-3	PZ-201D	Water	03/05/19 13:12	03/06/19 16:35
400-166941-4	GE-1D	Water	03/06/19 14:32	03/06/19 16:35
400-166941-5	DUP-06	Water	03/05/19 17:10	03/06/19 16:35
400-166941-6	DUP-07	Water	03/06/19 13:32	03/06/19 16:35

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S

Date Collected: 03/05/19 16:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.67		0.313	0.455	1.00	0.102	pCi/L	03/13/19 12:14	04/04/19 16:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/13/19 12:14*	*04/04/19 16:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.89		0.434	0.509	1.00	0.421	pCi/L	03/13/19 14:05	03/26/19 15:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*
Y Carrier	*84.1*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.56		0.535	0.683	5.00	0.421	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: GSA-2S

Date Collected: 03/06/19 12:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.28		0.192	0.224	1.00	0.0898	pCi/L	03/13/19 12:14	04/04/19 16:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*03/13/19 12:14*	*04/04/19 16:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.37		0.327	0.350	1.00	0.381	pCi/L	03/13/19 14:05	03/26/19 15:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.65		0.379	0.416	5.00	0.381	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-201D

Date Collected: 03/05/19 13:12
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.216**		0.0892	0.0913	1.00	0.0874	pCi/L	03/13/19 12:14	04/04/19 16:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*03/13/19 12:14*	*04/04/19 16:48*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.247	0.247	1.00	0.415	pCi/L	03/13/19 14:05	03/26/19 15:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*
Y Carrier	*83.7*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.376	U	0.263	0.263	5.00	0.415	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D

Date Collected: 03/06/19 14:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.193		0.0849	0.0867	1.00	0.0921	pCi/L	03/13/19 12:14	04/04/19 16:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/13/19 12:14*	*04/04/19 16:49*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.406		0.235	0.238	1.00	0.352	pCi/L	03/13/19 14:05	03/26/19 15:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*
Y Carrier	*85.6*		*40 - 110*	*03/13/19 14:05*	*03/26/19 15:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.599		0.250	0.253	5.00	0.352	pCi/L		04/14/19 07:25	1

Client Sample ID: DUP-06

Date Collected: 03/05/19 17:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.16		0.318	0.427	1.00	0.0798	pCi/L	03/13/19 10:50	04/04/19 06:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*03/13/19 10:50*	*04/04/19 06:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.63		0.458	0.567	1.00	0.410	pCi/L	03/13/19 11:44	03/29/19 08:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*03/13/19 11:44*	*03/29/19 08:59*	*1*
Y Carrier	*87.5*		*40 - 110*	*03/13/19 11:44*	*03/29/19 08:59*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.79		0.558	0.710	5.00	0.410	pCi/L		04/14/19 07:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: DUP-07

Date Collected: 03/06/19 13:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.258		0.0943	0.0971	1.00	0.0842	pCi/L	03/13/19 10:50	04/04/19 06:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/13/19 10:50*	*04/04/19 06:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.356		0.217	0.219	1.00	0.331	pCi/L	03/13/19 11:44	03/29/19 08:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*03/13/19 11:44*	*03/29/19 08:59*	*1*
Y Carrier	*92.3*		*40 - 110*	*03/13/19 11:44*	*03/29/19 08:59*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.614		0.237	0.240	5.00	0.331	pCi/L		04/14/19 07:25	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S
Date Collected: 03/05/19 16:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419103	03/13/19 12:14	LTC	TAL SL
Total/NA	Analysis	9315		1	422642	04/04/19 16:47	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419136	03/13/19 14:05	LTC	TAL SL
Total/NA	Analysis	9320		1	421229	03/26/19 15:57	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: GSA-2S
Date Collected: 03/06/19 12:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419103	03/13/19 12:14	LTC	TAL SL
Total/NA	Analysis	9315		1	422642	04/04/19 16:47	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419136	03/13/19 14:05	LTC	TAL SL
Total/NA	Analysis	9320		1	421229	03/26/19 15:57	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: PZ-201D
Date Collected: 03/05/19 13:12
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419103	03/13/19 12:14	LTC	TAL SL
Total/NA	Analysis	9315		1	422643	04/04/19 16:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419136	03/13/19 14:05	LTC	TAL SL
Total/NA	Analysis	9320		1	421229	03/26/19 15:57	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: GE-1D
Date Collected: 03/06/19 14:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419103	03/13/19 12:14	LTC	TAL SL
Total/NA	Analysis	9315		1	422643	04/04/19 16:49	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419136	03/13/19 14:05	LTC	TAL SL
Total/NA	Analysis	9320		1	421229	03/26/19 15:57	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Client Sample ID: DUP-06

Date Collected: 03/05/19 17:10
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419090	03/13/19 10:50	LTC	TAL SL
Total/NA	Analysis	9315		1	422643	04/04/19 06:17	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419100	03/13/19 11:44	LTC	TAL SL
Total/NA	Analysis	9320		1	421903	03/29/19 08:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Client Sample ID: DUP-07

Date Collected: 03/06/19 13:32
Date Received: 03/06/19 16:35

Lab Sample ID: 400-166941-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			419090	03/13/19 10:50	LTC	TAL SL
Total/NA	Analysis	9315		1	422643	04/04/19 06:17	CDR	TAL SL
Total/NA	Prep	PrecSep_0			419100	03/13/19 11:44	LTC	TAL SL
Total/NA	Analysis	9320		1	421903	03/29/19 08:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	423568	04/14/19 07:25	CDR	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 419090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-5	DUP-06	Total/NA	Water	PrecSep-21	
400-166941-6	DUP-07	Total/NA	Water	PrecSep-21	
MB 160-419090/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-419090/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-33070-B-11-B MSD	Matrix Spike Duplicate	Dissolved	Water	PrecSep-21	
160-33070-I-11-A MS	Matrix Spike	Dissolved	Water	PrecSep-21	

Prep Batch: 419100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-5	DUP-06	Total/NA	Water	PrecSep_0	
400-166941-6	DUP-07	Total/NA	Water	PrecSep_0	
MB 160-419100/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-419100/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-33070-B-11-C MSD	Matrix Spike Duplicate	Dissolved	Water	PrecSep_0	
160-33070-I-11-B MS	Matrix Spike	Dissolved	Water	PrecSep_0	

Prep Batch: 419103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	PrecSep-21	
400-166941-2	GSA-2S	Total/NA	Water	PrecSep-21	
400-166941-3	PZ-201D	Total/NA	Water	PrecSep-21	
400-166941-4	GE-1D	Total/NA	Water	PrecSep-21	
MB 160-419103/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-419103/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
490-169432-F-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 419136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-166941-1	PZ-200S	Total/NA	Water	PrecSep_0	
400-166941-2	GSA-2S	Total/NA	Water	PrecSep_0	
400-166941-3	PZ-201D	Total/NA	Water	PrecSep_0	
400-166941-4	GE-1D	Total/NA	Water	PrecSep_0	
MB 160-419136/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-419136/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
490-169432-F-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-419090/24-A
Matrix: Water
Analysis Batch: 422643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419090

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03216	U	0.0564	0.0565	1.00	0.101	pCi/L	03/13/19 10:50	04/04/19 06:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*03/13/19 10:50*	*04/04/19 06:17*	*1*

Lab Sample ID: LCS 160-419090/1-A
Matrix: Water
Analysis Batch: 422644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419090

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.548		0.929	1.00	0.110	pCi/L	75	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*

Lab Sample ID: MB 160-419103/23-A
Matrix: Water
Analysis Batch: 422643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419103

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03843	U	0.0428	0.0429	1.00	0.0667	pCi/L	03/13/19 12:14	04/04/19 16:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/13/19 12:14*	*04/04/19 16:49*	*1*

Lab Sample ID: LCS 160-419103/1-A
Matrix: Water
Analysis Batch: 422655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419103

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	10.83		1.13	1.00	0.0885	pCi/L	95	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.6*		*40 - 110*

Lab Sample ID: 490-169432-F-1-A DU
Matrix: Water
Analysis Batch: 422642

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 419103

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.384			0.3982		0.118	1.00	0.0747	pCi/L			0.06	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 490-169432-F-1-A DU
Matrix: Water
Analysis Batch: 422642

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 419103

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.3		40 - 110

Lab Sample ID: 160-33070-B-11-B MSD
Matrix: Water
Analysis Batch: 422642

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 419090

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.465		11.3	10.08		1.07	1.00	0.0919	pCi/L	85	75 - 138	0.57	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	97.3		40 - 110

Lab Sample ID: 160-33070-I-11-A MS
Matrix: Water
Analysis Batch: 422642

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 419090

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.465		11.4	8.931		0.968	1.00	0.0832	pCi/L	75	75 - 138

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	95.9		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-419100/24-A
Matrix: Water
Analysis Batch: 421795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419100

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1898	U	0.223	0.223	1.00	0.367	pCi/L	03/13/19 11:44	03/29/19 09:01	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110	03/13/19 11:44	03/29/19 09:01	1
Y Carrier	85.6		40 - 110	03/13/19 11:44	03/29/19 09:01	1

Lab Sample ID: LCS 160-419100/1-A
Matrix: Water
Analysis Batch: 421913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419100

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.35	8.771		1.01	1.00	0.297	pCi/L	94	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-419100/1-A
Matrix: Water
Analysis Batch: 421913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419100

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.1		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: MB 160-419136/23-A
Matrix: Water
Analysis Batch: 421229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419136

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.004270	U	0.200	0.200	1.00	0.360	pCi/L	03/13/19 14:05	03/26/19 15:57	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110	03/13/19 14:05	03/26/19 15:57	1
Y Carrier	84.5		40 - 110	03/13/19 14:05	03/26/19 15:57	1

Lab Sample ID: LCS 160-419136/1-A
Matrix: Water
Analysis Batch: 421229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419136

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.36	9.522		1.12	1.00	0.382	pCi/L	102	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	80.7		40 - 110

Lab Sample ID: 490-169432-F-1-B DU
Matrix: Water
Analysis Batch: 421229

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 419136

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.536			0.3165	U	0.283	1.00	0.453	pCi/L			0.36	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.3		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: 160-33070-B-11-C MSD
Matrix: Water
Analysis Batch: 421912

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 419100

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	1.46		9.35	10.37		1.17	1.00	0.304	pCi/L	95	45 - 150	0.42	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 160-33070-B-11-C MSD
Matrix: Water
Analysis Batch: 421912

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 419100

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	97.3		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: 160-33070-I-11-B MS
Matrix: Water
Analysis Batch: 421912

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 419100

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	1.46		9.35	11.39		1.25	1.00	0.299	pCi/L	106	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	95.9		40 - 110
Y Carrier	90.5		40 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-166750-A-3 DU
Matrix: Water
Analysis Batch: 423568

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	3.76			3.589		0.482	5.00	0.339	pCi/L			0.18	

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Bill Heyendorfer / Colton EVANS	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82560-23631.1
Client Contact: Kristi Mitchell	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-166941 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
PZ-200S	3-5-19	1610	G	Water			X	X	X			
PZ-200D				Water								
GSA-2S	3-6-19	1210	G	Water			X	X	X			
PZ-201D	3-5-19	1312	G	Water			X	X	X			
GE-4DR				Water								
GE-1D	3-6-19	1432	G	Water			X	X	X			
DWP-06	3-5-19	1710	G	Water			X	X	X			
DWP-07	3-6-19	1332	G	Water			X	X	X			
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/6/19 1635	RDH	Kathy P Avery	3-6-19 1635	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.7, 1.1 IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166941-2
SDG Number: GSA Delineation Sampling

Login Number: 166941
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C, 1.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-166941-2
SDG Number: GSA Delineation Sampling

Login Number: 166941
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 03/08/19 03:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-166941-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD / DOE		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-168194-1
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Kristi Mitchell

Cheyenne R Whitmire

Authorized for release by:
4/29/2019 2:42:40 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-168194-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-168194-1

Metals
Method(s) 6020: The post digestion spike % recovery associated with batch 437615 was outside of control limits. The following sample is impacted: (400-168490-H-3-C PDS ^5).

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 437384 and analytical batch 437615 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry
Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate(MS/MSD) precision for analytical batch 436905 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample(LCS)was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 437484 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Sample GE-4DR was canceled per client.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D — Lab Sample ID: 400-168194-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.055		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.022	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	5.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0012	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0021		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0050		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Barium, Dissolved	0.035		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	4.8		0.25	0.13	mg/L	5		6020	Dissolved
Lithium, Dissolved	0.0021	I	0.0050	0.0011	mg/L	5		6020	Dissolved
Total Dissolved Solids	96		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Total Dissolved Solids Field Filtered	70		5.0	3.4	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	3.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Dissolved
Fluoride, Dissolved	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Dissolved
Sulfate, Dissolved	6.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Dissolved
Field pH	6.69				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-168194-1	PZ-200D	Water	04/02/19 16:25	04/03/19 14:50

Client Sample ID: PZ-200D

Date Collected: 04/02/19 16:25
Date Received: 04/03/19 14:50

Lab Sample ID: 400-168194-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		04/17/19 09:15	04/17/19 23:03	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		04/17/19 09:15	04/17/19 23:03	5
Barium	**0.055**		0.0025	0.00049	mg/L		04/17/19 09:15	04/17/19 23:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 23:03	5
Boron	**0.022**	**I**	0.050	0.021	mg/L		04/17/19 09:15	04/17/19 23:03	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 23:03	5
Calcium	**5.5**		0.25	0.13	mg/L		04/17/19 09:15	04/17/19 23:03	5
Cobalt	**0.0012**	**I**	0.0025	0.00040	mg/L		04/17/19 09:15	04/17/19 23:03	5
Lead	**0.0021**		0.0013	0.00035	mg/L		04/17/19 09:15	04/17/19 23:03	5
Lithium	**0.0050**		0.0050	0.0011	mg/L		04/17/19 09:15	04/17/19 23:03	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		04/17/19 09:15	04/17/19 23:03	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		04/17/19 09:15	04/17/19 23:03	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		04/17/19 09:15	04/17/19 23:03	5

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	0.0010	U	0.0025	0.0010	mg/L		04/17/19 09:15	04/17/19 23:19	5
Arsenic, Dissolved	0.00046	U	0.0013	0.00046	mg/L		04/17/19 09:15	04/17/19 23:19	5
Barium, Dissolved	**0.035**		0.0025	0.00049	mg/L		04/17/19 09:15	04/17/19 23:19	5
Beryllium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 23:19	5
Boron, Dissolved	0.021	U	0.050	0.021	mg/L		04/17/19 09:15	04/17/19 23:19	5
Cadmium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 23:19	5
Calcium, Dissolved	**4.8**		0.25	0.13	mg/L		04/17/19 09:15	04/17/19 23:19	5
Cobalt, Dissolved	0.00040	U	0.0025	0.00040	mg/L		04/17/19 09:15	04/17/19 23:19	5
Lead, Dissolved	0.00035	U	0.0013	0.00035	mg/L		04/17/19 09:15	04/17/19 23:19	5
Lithium, Dissolved	**0.0021**	**I**	0.0050	0.0011	mg/L		04/17/19 09:15	04/17/19 23:19	5
Molybdenum, Dissolved	0.0020	U	0.015	0.0020	mg/L		04/17/19 09:15	04/17/19 23:19	5
Selenium, Dissolved	0.00071	U	0.0013	0.00071	mg/L		04/17/19 09:15	04/17/19 23:19	5
Thallium, Dissolved	0.000085	U	0.00050	0.000085	mg/L		04/17/19 09:15	04/17/19 23:19	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		04/15/19 15:07	04/16/19 12:44	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		04/15/19 15:07	04/16/19 12:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**96**		5.0	3.4	mg/L			04/05/19 10:59	1
Chloride	**6.9**		2.0	1.4	mg/L			04/17/19 14:15	1
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			04/12/19 11:02	1
Sulfate	**14**		5.0	1.4	mg/L			04/17/19 16:28	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	**70**		5.0	3.4	mg/L			04/05/19 10:59	1
Chloride, Dissolved	**3.0**		2.0	1.4	mg/L			04/17/19 14:15	1
Fluoride, Dissolved	**0.070**	**I**	0.10	0.032	mg/L			04/12/19 11:02	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D
Date Collected: 04/02/19 16:25
Date Received: 04/03/19 14:50

Lab Sample ID: 400-168194-1
Matrix: Water

General Chemistry - Dissolved (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate, Dissolved	6.5		5.0	1.4	mg/L			04/17/19 16:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.69				SU			04/02/19 16:25	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D
Date Collected: 04/02/19 16:25
Date Received: 04/03/19 14:50

Lab Sample ID: 400-168194-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			437384	04/17/19 09:15	DRE	TAL PEN
Dissolved	Analysis	6020		5	437615	04/17/19 23:19	DRE	TAL PEN
Total Recoverable	Prep	3005A			437384	04/17/19 09:15	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	437615	04/17/19 23:03	DRE	TAL PEN
Dissolved	Prep	7470A			437150	04/15/19 15:07	JAP	TAL PEN
Dissolved	Analysis	7470A		1	437306	04/16/19 12:48	JAP	TAL PEN
Total/NA	Prep	7470A			437150	04/15/19 15:07	JAP	TAL PEN
Total/NA	Analysis	7470A		1	437306	04/16/19 12:44	JAP	TAL PEN
Dissolved	Analysis	SM 2540C		1	436020	04/05/19 10:59	CLB	TAL PEN
Total/NA	Analysis	SM 2540C		1	436020	04/05/19 10:59	CLB	TAL PEN
Dissolved	Analysis	SM 4500 Cl- E		1	437484	04/17/19 14:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	437484	04/17/19 14:15	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1	436905	04/12/19 11:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	436905	04/12/19 11:02	BAB	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		1	437533	04/17/19 16:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	437533	04/17/19 16:28	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	436457	04/02/19 16:25	AW	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 437150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	7470A	
400-168194-1	PZ-200D	Total/NA	Water	7470A	
MB 400-437150/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-437150/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-168576-F-2-D MS	Matrix Spike	Total/NA	Water	7470A	
400-168576-F-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 437306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	7470A	437150
400-168194-1	PZ-200D	Total/NA	Water	7470A	437150
MB 400-437150/14-A	Method Blank	Total/NA	Water	7470A	437150
LCS 400-437150/15-A	Lab Control Sample	Total/NA	Water	7470A	437150
400-168576-F-2-D MS	Matrix Spike	Total/NA	Water	7470A	437150
400-168576-F-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	437150

Prep Batch: 437384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	3005A	
400-168194-1	PZ-200D	Total Recoverable	Water	3005A	
MB 400-437384/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-437384/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-168490-H-3-D MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-168490-H-3-E MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 437615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	6020	437384
400-168194-1	PZ-200D	Total Recoverable	Water	6020	437384
MB 400-437384/1-A ^5	Method Blank	Total Recoverable	Water	6020	437384
LCS 400-437384/2-A	Lab Control Sample	Total Recoverable	Water	6020	437384
400-168490-H-3-D MS ^5	Matrix Spike	Total Recoverable	Water	6020	437384
400-168490-H-3-E MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	437384

General Chemistry

Analysis Batch: 436020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	SM 2540C	
400-168194-1	PZ-200D	Total/NA	Water	SM 2540C	
MB 400-436020/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-436020/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-168178-E-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 436905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	SM 4500 F C	
400-168194-1	PZ-200D	Total/NA	Water	SM 4500 F C	
MB 400-436905/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-436905/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-168497-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 436905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168497-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 437484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	SM 4500 Cl- E	
400-168194-1	PZ-200D	Total/NA	Water	SM 4500 Cl- E	
MB 400-437484/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-437484/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-437484/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-168709-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-168709-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-168862-G-3 DU	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 437533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	SM 4500 SO4 E	
400-168194-1	PZ-200D	Total/NA	Water	SM 4500 SO4 E	
MB 400-437533/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-437533/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-437533/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-168497-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-168497-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 436457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-437384/1-A ^5
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0010	U	0.0025	0.0010	mg/L		04/17/19 09:15	04/17/19 20:35	5
Antimony, Dissolved	0.0010	U	0.0025	0.0010	mg/L		04/17/19 09:15	04/17/19 20:35	5
Arsenic	0.00046	U	0.0013	0.00046	mg/L		04/17/19 09:15	04/17/19 20:35	5
Arsenic, Dissolved	0.00046	U	0.0013	0.00046	mg/L		04/17/19 09:15	04/17/19 20:35	5
Barium	0.00049	U	0.0025	0.00049	mg/L		04/17/19 09:15	04/17/19 20:35	5
Barium, Dissolved	0.00049	U	0.0025	0.00049	mg/L		04/17/19 09:15	04/17/19 20:35	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 20:35	5
Beryllium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 20:35	5
Boron	0.021	U	0.050	0.021	mg/L		04/17/19 09:15	04/17/19 20:35	5
Boron, Dissolved	0.021	U	0.050	0.021	mg/L		04/17/19 09:15	04/17/19 20:35	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 20:35	5
Cadmium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		04/17/19 09:15	04/17/19 20:35	5
Calcium	0.13	U	0.25	0.13	mg/L		04/17/19 09:15	04/17/19 20:35	5
Calcium, Dissolved	0.13	U	0.25	0.13	mg/L		04/17/19 09:15	04/17/19 20:35	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		04/17/19 09:15	04/17/19 20:35	5
Cobalt, Dissolved	0.00040	U	0.0025	0.00040	mg/L		04/17/19 09:15	04/17/19 20:35	5
Lead	0.00035	U	0.0013	0.00035	mg/L		04/17/19 09:15	04/17/19 20:35	5
Lead, Dissolved	0.00035	U	0.0013	0.00035	mg/L		04/17/19 09:15	04/17/19 20:35	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		04/17/19 09:15	04/17/19 20:35	5
Lithium, Dissolved	0.0011	U	0.0050	0.0011	mg/L		04/17/19 09:15	04/17/19 20:35	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		04/17/19 09:15	04/17/19 20:35	5
Molybdenum, Dissolved	0.0020	U	0.015	0.0020	mg/L		04/17/19 09:15	04/17/19 20:35	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		04/17/19 09:15	04/17/19 20:35	5
Selenium, Dissolved	0.00071	U	0.0013	0.00071	mg/L		04/17/19 09:15	04/17/19 20:35	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		04/17/19 09:15	04/17/19 20:35	5
Thallium, Dissolved	0.000085	U	0.00050	0.000085	mg/L		04/17/19 09:15	04/17/19 20:35	5

Lab Sample ID: LCS 400-437384/2-A
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0500	0.0465		mg/L		93	80 - 120
Antimony, Dissolved	0.0500	0.0465		mg/L		93	80 - 120
Arsenic	0.0500	0.0524		mg/L		105	80 - 120
Arsenic, Dissolved	0.0500	0.0524		mg/L		105	80 - 120
Barium	0.0500	0.0510		mg/L		102	80 - 120
Barium, Dissolved	0.0500	0.0510		mg/L		102	80 - 120
Beryllium	0.0500	0.0497		mg/L		99	80 - 120
Beryllium, Dissolved	0.0500	0.0497		mg/L		99	80 - 120
Boron	0.100	0.0997		mg/L		100	80 - 120
Boron, Dissolved	0.100	0.0997		mg/L		100	80 - 120
Cadmium	0.0500	0.0517		mg/L		103	80 - 120
Cadmium, Dissolved	0.0500	0.0517		mg/L		103	80 - 120
Calcium	5.00	5.16		mg/L		103	80 - 120
Calcium, Dissolved	5.00	5.16		mg/L		103	80 - 120
Cobalt	0.0500	0.0514		mg/L		103	80 - 120
Cobalt, Dissolved	0.0500	0.0514		mg/L		103	80 - 120
Lead	0.0500	0.0469		mg/L		94	80 - 120

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

Lab Sample ID: LCS 400-437384/2-A
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead, Dissolved	0.0500	0.0469		mg/L		94	80 - 120
Lithium	0.0500	0.0530		mg/L		106	80 - 120
Lithium, Dissolved	0.0500	0.0530		mg/L		106	80 - 120
Molybdenum	0.0500	0.0524		mg/L		105	80 - 120
Molybdenum, Dissolved	0.0500	0.0524		mg/L		105	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Selenium, Dissolved	0.0500	0.0508		mg/L		102	80 - 120
Thallium	0.0100	0.00950		mg/L		95	80 - 120
Thallium, Dissolved	0.0100	0.00950		mg/L		95	80 - 120

Lab Sample ID: 400-168490-H-3-D MS ^5
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0010	U	0.0500	0.0499		mg/L		100	75 - 125
Antimony, Dissolved	0.0010	U	0.0500	0.0499		mg/L		100	75 - 125
Arsenic	0.0019		0.0500	0.0565		mg/L		109	75 - 125
Arsenic, Dissolved	0.0019		0.0500	0.0565		mg/L		109	75 - 125
Barium	0.34		0.0500	0.394		mg/L		99	75 - 125
Barium, Dissolved	0.34		0.0500	0.394		mg/L		99	75 - 125
Beryllium	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125
Beryllium, Dissolved	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125
Boron	0.021	U	0.100	0.119		mg/L		119	75 - 125
Boron, Dissolved	0.021	U	0.100	0.119		mg/L		119	75 - 125
Cadmium	0.00034	U	0.0500	0.0532		mg/L		106	75 - 125
Cadmium, Dissolved	0.00034	U	0.0500	0.0532		mg/L		106	75 - 125
Calcium	110		5.00	114	L	mg/L		86	75 - 125
Calcium, Dissolved	110		5.00	114	L	mg/L		86	75 - 125
Cobalt	0.00040	U	0.0500	0.0515		mg/L		103	75 - 125
Cobalt, Dissolved	0.00040	U	0.0500	0.0515		mg/L		103	75 - 125
Lead	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125
Lead, Dissolved	0.00035	U	0.0500	0.0488		mg/L		98	75 - 125
Lithium	0.0035	I	0.0500	0.0553		mg/L		104	75 - 125
Lithium, Dissolved	0.0035	I	0.0500	0.0553		mg/L		104	75 - 125
Molybdenum	0.0020	U	0.0500	0.0545		mg/L		109	75 - 125
Molybdenum, Dissolved	0.0020	U	0.0500	0.0545		mg/L		109	75 - 125
Selenium	0.00071	U	0.0500	0.0535		mg/L		107	75 - 125
Selenium, Dissolved	0.00071	U	0.0500	0.0535		mg/L		107	75 - 125
Thallium	0.000085	U	0.0100	0.00968		mg/L		97	75 - 125
Thallium, Dissolved	0.000085	U	0.0100	0.00968		mg/L		97	75 - 125

Lab Sample ID: 400-168490-H-3-E MSD ^5
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0010	U	0.0500	0.0479		mg/L		96	75 - 125	4	20
Antimony, Dissolved	0.0010	U	0.0500	0.0479		mg/L		96	75 - 125	4	20

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

Lab Sample ID: 400-168490-H-3-E MSD ^5
Matrix: Water
Analysis Batch: 437615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 437384

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0019		0.0500	0.0554		mg/L		107	75 - 125	2	20
Arsenic, Dissolved	0.0019		0.0500	0.0554		mg/L		107	75 - 125	2	20
Barium	0.34		0.0500	0.401		mg/L		115	75 - 125	2	20
Barium, Dissolved	0.34		0.0500	0.401		mg/L		115	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0500		mg/L		100	75 - 125	1	20
Beryllium, Dissolved	0.00034	U	0.0500	0.0500		mg/L		100	75 - 125	1	20
Boron	0.021	U	0.100	0.119		mg/L		119	75 - 125	0	20
Boron, Dissolved	0.021	U	0.100	0.119		mg/L		119	75 - 125	0	20
Cadmium	0.00034	U	0.0500	0.0530		mg/L		106	75 - 125	0	20
Cadmium, Dissolved	0.00034	U	0.0500	0.0530		mg/L		106	75 - 125	0	20
Calcium	110		5.00	117	L J3	mg/L		136	75 - 125	2	20
Calcium, Dissolved	110		5.00	117	L J3	mg/L		136	75 - 125	2	20
Cobalt	0.00040	U	0.0500	0.0512		mg/L		102	75 - 125	1	20
Cobalt, Dissolved	0.00040	U	0.0500	0.0512		mg/L		102	75 - 125	1	20
Lead	0.00035	U	0.0500	0.0469		mg/L		94	75 - 125	4	20
Lead, Dissolved	0.00035	U	0.0500	0.0469		mg/L		94	75 - 125	4	20
Lithium	0.0035	I	0.0500	0.0553		mg/L		104	75 - 125	0	20
Lithium, Dissolved	0.0035	I	0.0500	0.0553		mg/L		104	75 - 125	0	20
Molybdenum	0.0020	U	0.0500	0.0531		mg/L		106	75 - 125	3	20
Molybdenum, Dissolved	0.0020	U	0.0500	0.0531		mg/L		106	75 - 125	3	20
Selenium	0.00071	U	0.0500	0.0519		mg/L		104	75 - 125	3	20
Selenium, Dissolved	0.00071	U	0.0500	0.0519		mg/L		104	75 - 125	3	20
Thallium	0.000085	U	0.0100	0.00985		mg/L		99	75 - 125	2	20
Thallium, Dissolved	0.000085	U	0.0100	0.00985		mg/L		99	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-437150/14-A
Matrix: Water
Analysis Batch: 437306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 437150

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		04/15/19 15:07	04/16/19 12:12	1
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		04/15/19 15:07	04/16/19 12:12	1

Lab Sample ID: LCS 400-437150/15-A
Matrix: Water
Analysis Batch: 437306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000911		mg/L		90	80 - 120
Mercury, Dissolved	0.00101	0.000911		mg/L		90	80 - 120

Lab Sample ID: 400-168576-F-2-D MS
Matrix: Water
Analysis Batch: 437306

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 437150

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00188		mg/L		93	80 - 120
Mercury, Dissolved	0.000070	U	0.00201	0.00188		mg/L		93	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 400-168576-F-2-E MSD
Matrix: Water
Analysis Batch: 437306

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 437150

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00180		mg/L		89	80 - 120	5	20
Mercury, Dissolved	0.000070	U	0.00201	0.00180		mg/L		89	80 - 120	5	20

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

Lab Sample ID: MB 400-436020/1
Matrix: Water
Analysis Batch: 436020

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			04/05/19 10:59	1
Total Dissolved Solids Field Filtered	3.4	U	5.0	3.4	mg/L			04/05/19 10:59	1

Lab Sample ID: LCS 400-436020/2
Matrix: Water
Analysis Batch: 436020

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	262		mg/L		89	78 - 122
Total Dissolved Solids Field Filtered	293	262		mg/L		89	78 - 122

Lab Sample ID: 400-168178-E-2 DU
Matrix: Water
Analysis Batch: 436020

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	86		84.0		mg/L		2	5
Total Dissolved Solids Field Filtered	86		84.0		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-437484/6
Matrix: Water
Analysis Batch: 437484

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			04/17/19 14:15	1
Chloride, Dissolved	1.4	U	2.0	1.4	mg/L			04/17/19 14:15	1

Lab Sample ID: LCS 400-437484/7
Matrix: Water
Analysis Batch: 437484

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.5		mg/L		108	90 - 110
Chloride, Dissolved	30.0	32.5		mg/L		108	90 - 110

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MRL 400-437484/3
Matrix: Water
Analysis Batch: 437484

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.40	I	mg/L		70	50 - 150		
Chloride, Dissolved			2.00	1.40	I	mg/L		70	50 - 150		

Lab Sample ID: 400-168709-A-1 MS
Matrix: Water
Analysis Batch: 437484

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	4.4		10.0	19.4	J3	mg/L		149	73 - 120		
Chloride, Dissolved	4.4		10.0	19.4	J3	mg/L		149	73 - 120		

Lab Sample ID: 400-168709-A-1 MSD
Matrix: Water
Analysis Batch: 437484

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.4		10.0	16.8	J3	mg/L		124	73 - 120	14	8
Chloride, Dissolved	4.4		10.0	16.8	J3	mg/L		124	73 - 120	14	8

Lab Sample ID: 400-168862-G-3 DU
Matrix: Water
Analysis Batch: 437484

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	23		22.4		mg/L		1	8
Chloride, Dissolved	23		22.4		mg/L		1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-436905/3
Matrix: Water
Analysis Batch: 436905

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			04/12/19 10:28	1
Fluoride, Dissolved	0.032	U	0.10	0.032	mg/L			04/12/19 10:28	1

Lab Sample ID: LCS 400-436905/4
Matrix: Water
Analysis Batch: 436905

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.61		mg/L		90	90 - 110		
Fluoride, Dissolved			4.00	3.61		mg/L		90	90 - 110		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-168497-A-1 MS
Matrix: Water
Analysis Batch: 436905

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	I	1.00	0.980		mg/L		94	75 - 125
Fluoride, Dissolved	0.040	I	1.00	0.980		mg/L		94	75 - 125

Lab Sample ID: 400-168497-A-1 MSD
Matrix: Water
Analysis Batch: 436905

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	I	1.00	1.08	J3	mg/L		104	75 - 125	10	4
Fluoride, Dissolved	0.040	I	1.00	1.08	J3	mg/L		104	75 - 125	10	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-437533/6
Matrix: Water
Analysis Batch: 437533

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			04/17/19 16:21	1
Sulfate, Dissolved	1.4	U	5.0	1.4	mg/L			04/17/19 16:21	1

Lab Sample ID: LCS 400-437533/7
Matrix: Water
Analysis Batch: 437533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.9		mg/L		99	90 - 110
Sulfate, Dissolved	15.0	14.9		mg/L		99	90 - 110

Lab Sample ID: MRL 400-437533/3
Matrix: Water
Analysis Batch: 437533

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.48	I	mg/L		90	50 - 150
Sulfate, Dissolved	5.00	4.48	I	mg/L		90	50 - 150

Lab Sample ID: 400-168497-A-1 MS
Matrix: Water
Analysis Batch: 437533

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	21.2		10.0	30.2		mg/L		89	77 - 128
Sulfate, Dissolved	21.2		10.0	30.2		mg/L		89	77 - 128

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-168497-A-1 MSD
Matrix: Water
Analysis Batch: 437533

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	21.2		10.0	29.9		mg/L		87	77 - 128	1	5
Sulfate, Dissolved	21.2		10.0	29.9		mg/L		87	77 - 128	1	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82560-23631.1
Client Contact: Kristi Mitchell	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	9315 Rads 9320 - F Field filter	Cl,SO4, TDS, F Field filter	6020, 242A Field filter	9315 Rads 9320 Lab filter	Cl, SO4, TDS, F Lab filter	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	D	N	D	N						X	
PZ-200D	4/2/19	1625	G	Water			X	X	X		X	X	X				
GE4DR	4/3/19	1140	G	Water			X	X	X				X	X	X		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

400-168194 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/3/19 1450	RDH	Kathy R Avery	4/3/19 1450	TA

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.5°C IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-168194-1
SDG Number: GSA Delineation Sampling

Login Number: 168194
List Number: 1
Creator: Shannon, Jonathon W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-1
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-168194-2
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
5/22/2019 11:48:27 AM

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

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

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Job ID: 400-168194-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-168194-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-424080. The following samples have an RER (replicate error ratio) result outside of the acceptance criteria of 1 (1.71) for Ra-226. Duplicate precision is demonstrated by acceptable relative percent difference (RPD), within the limit of 40% (36%). The data have been reported with this narrative. PZ-200D (400-168194-1), (LCS 160-424080/1-A), (MB 160-424080/23-A), (240-110089-J-4-A), (240-110089-A-4-A MS) and (240-110089-A-4-B MSD)

Method(s) 9315: Radium-226 Prep Batch: 160-424080. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-168194-1), (LCS 160-424080/1-A), (MB 160-424080/23-A), (240-110089-J-4-A), (240-110089-A-4-A MS) and (240-110089-A-4-B MSD)

Method(s) 9315: Radium-226 Prep Batch 160-424884. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-168194-1), (LCS 160-424884/1-A), (LCSD 160-424884/2-A) and (MB 160-424884/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-424240. The daily background check (BKG) for the detector (Protean 2) the method blank (MB) was counted on (5/3/19) but was not saved due to an instrument communications error. The bracketing BKG on 5/2 and 5/4 were both within limits. The MB exhibited activity below the MDC, indicating the absence of detector contamination. The laboratory does not believe this excursion affects the data. PZ-200D (400-168194-1), (LCS 160-424240/1-A), (MB 160-424240/23-A), (240-110089-J-4-B), (240-110089-A-4-C MS) and (240-110089-A-4-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-424240. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-168194-1), (LCS 160-424240/1-A), (MB 160-424240/23-A), (240-110089-J-4-B), (240-110089-A-4-C MS) and (240-110089-A-4-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-424240. The following samples have an RER (replicate error ratio) result outside of the acceptance criteria of 1 (1.51)) for Ra-228. Duplicate precision is demonstrated by acceptable relative percent difference (RPD), within the limit of 40% (36%). The data have been reported with this narrative. PZ-200D (400-168194-1), (LCS 160-424240/1-A), (MB 160-424240/23-A), (240-110089-J-4-B), (240-110089-A-4-C MS) and (240-110089-A-4-D MSD)

Method(s) 9320: Ra-228 Prep Batch 160-424886. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-168194-1), (LCS 160-424886/1-A), (LCSD 160-424886/2-A) and (MB 160-424886/23-A)

Method(s) PrecSep_0: Radium-228 Prep Batch 424240. The following sample was run at a reduced aliquot: PZ-200D (400-168194-1). Samples in jobs 160-33733, 180-87353, and 240-110089 were reduced due to sediment and yellow sample matrix. Samples 400-168194-1 and 480-151258-3 were reduced due to brown sediment. Sample 400-168194-2 was reduced due to heavy brown sediment.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-424886. Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: PZ-200D (400-168194-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium-226 Prep Batch 424080. The following sample was run at a reduced aliquot: PZ-200D (400-168194-1). Samples in jobs 160-33733, 180-87353, and 240-110089 were reduced due to sediment and yellow sample matrix. Samples 400-168194-1 and 480-151258-3 were reduced due to brown sediment. Sample 400-168194-2 was reduced due to heavy brown sediment.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-424884. Insufficient sample volume was available to perform a sample duplicate

Job ID: 400-168194-2 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

(DUP) for the following samples: PZ-200D (400-168194-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Assest ID
400-168194-1	PZ-200D	Water	04/02/19 16:25	04/03/19 14:50	

Client Sample ID: PZ-200D

Date Collected: 04/02/19 16:25
Date Received: 04/03/19 14:50

Lab Sample ID: 400-168194-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.402**	**F**	0.170	0.174	1.00	0.177	pCi/L	04/16/19 17:54	05/14/19 05:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*40 - 110*	*04/16/19 17:54*	*05/14/19 05:48*	*1*

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.297**		0.116	0.119	1.00	0.115	pCi/L	04/21/19 10:58	05/17/19 10:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/21/19 10:58*	*05/17/19 10:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.115	U F	0.430	0.430	1.00	0.752	pCi/L	04/17/19 11:48	05/03/19 13:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*40 - 110*	*04/17/19 11:48*	*05/03/19 13:51*	*1*
Y Carrier	*86.0*		*40 - 110*	*04/17/19 11:48*	*05/03/19 13:51*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.572**		0.257	0.263	1.00	0.365	pCi/L	04/21/19 11:38	05/13/19 16:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/21/19 11:38*	*05/13/19 16:06*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/21/19 11:38*	*05/13/19 16:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.518	U	0.462	0.464	5.00	0.752	pCi/L		05/15/19 10:17	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.518	U	0.462	0.464	5.00	0.752	pCi/L		05/21/19 09:43	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D

Date Collected: 04/02/19 16:25
Date Received: 04/03/19 14:50

Lab Sample ID: 400-168194-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			424884	04/21/19 10:58	CLP	TAL SL
Dissolved	Analysis	9315		1	428897	05/17/19 10:16	KLS	TAL SL
Total/NA	Prep	PrecSep-21			424080	04/16/19 17:54	CMM	TAL SL
Total/NA	Analysis	9315		1	428140	05/14/19 05:48	KLS	TAL SL
Dissolved	Prep	PrecSep_0			424886	04/21/19 11:38	CLP	TAL SL
Dissolved	Analysis	9320		1	428064	05/13/19 16:06	BLH	TAL SL
Total/NA	Prep	PrecSep_0			424240	04/17/19 11:48	HET	TAL SL
Total/NA	Analysis	9320		1	426595	05/03/19 13:51	CDR	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	429218	05/21/19 09:43	SMP	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	428506	05/15/19 10:17	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 424080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Total/NA	Water	PrecSep-21	
MB 160-424080/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-424080/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-110089-A-4-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-110089-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 424240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Total/NA	Water	PrecSep_0	
MB 160-424240/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-424240/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-110089-A-4-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-110089-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 424884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	PrecSep-21	
MB 160-424884/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-424884/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-424884/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 424886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-168194-1	PZ-200D	Dissolved	Water	PrecSep_0	
MB 160-424886/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-424886/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-424886/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-424080/23-A
Matrix: Water
Analysis Batch: 428140

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424080

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03189	U	0.0518	0.0519	1.00	0.0912	pCi/L	04/16/19 17:54	05/14/19 05:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*04/16/19 17:54*	*05/14/19 05:48*	*1*

Lab Sample ID: LCS 160-424080/1-A
Matrix: Water
Analysis Batch: 428152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424080

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	12.75		1.34	1.00	0.109	pCi/L	84	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*

Lab Sample ID: 240-110089-A-4-A MS
Matrix: Water
Analysis Batch: 428064

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 424080

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.0378	U F	15.1	13.08		1.37	1.00	0.121	pCi/L	86	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*95.5*		*40 - 110*

Lab Sample ID: 240-110089-A-4-B MSD
Matrix: Water
Analysis Batch: 428064

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 424080

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.0378	U F	22.7	18.80	F	1.97	1.00	0.178	pCi/L	83	75 - 138	1.71	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*97.7*		*40 - 110*

Lab Sample ID: MB 160-424884/23-A
Matrix: Water
Analysis Batch: 428896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424884

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0008727	U	0.0449	0.0449	1.00	0.101	pCi/L	04/21/19 10:58	05/17/19 12:44	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-424884/23-A
Matrix: Water
Analysis Batch: 428896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424884

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110	04/21/19 10:58	05/17/19 12:44	1

Lab Sample ID: LCS 160-424884/1-A
Matrix: Water
Analysis Batch: 428896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424884

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.293		1.02	1.00	0.114	pCi/L	82	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	110		40 - 110

Lab Sample ID: LCSD 160-424884/2-A
Matrix: Water
Analysis Batch: 428896

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 424884

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	10.29		1.12	1.00	0.124	pCi/L	91	75 - 125	0.47	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.7		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-424240/23-A
Matrix: Water
Analysis Batch: 426700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424240

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.05561	U	0.291	0.291	1.00	0.508	pCi/L	04/17/19 11:48	05/03/19 13:53	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110	04/17/19 11:48	05/03/19 13:53	1
Y Carrier	86.7		40 - 110	04/17/19 11:48	05/03/19 13:53	1

Lab Sample ID: LCS 160-424240/1-A
Matrix: Water
Analysis Batch: 426594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424240

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			12.3	9.344		1.12	1.00	0.436	pCi/L	76	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-424240/1-A
Matrix: Water
Analysis Batch: 426594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424240

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: 240-110089-A-4-C MS
Matrix: Water
Analysis Batch: 426594

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 424240

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.125	U F	12.3	10.98		1.30	1.00	0.460	pCi/L	88	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	95.5		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: 240-110089-A-4-D MSD
Matrix: Water
Analysis Batch: 426594

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 424240

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.125	U F	18.5	15.77	F	1.87	1.00	0.716	pCi/L	85	45 - 150	1.51	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	97.7		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: MB 160-424886/23-A
Matrix: Water
Analysis Batch: 428065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424886

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1298	U	0.230	0.230	1.00	0.391	pCi/L	04/21/19 11:38	05/13/19 16:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110	04/21/19 11:38	05/13/19 16:09	1
Y Carrier	75.1		40 - 110	04/21/19 11:38	05/13/19 16:09	1

Lab Sample ID: LCS 160-424886/1-A
Matrix: Water
Analysis Batch: 428064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424886

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.21	8.236		0.991	1.00	0.386	pCi/L	89	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-424886/1-A
Matrix: Water
Analysis Batch: 428064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424886

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	110		40 - 110
Y Carrier	75.9		40 - 110

Lab Sample ID: LCSD 160-424886/2-A
Matrix: Water
Analysis Batch: 428064

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 424886

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.21	8.436		1.04	1.00	0.433	pCi/L	92	75 - 125	0.1	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	75.9		40 - 110

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Trevor Braddock	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-82560-23631.1
Client Contact: Kristi Mitchell	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Pay by Credit Card			
Email: kristi.mitchell@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - Sb,As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	9315 Rads 9320 - F Field filter	Cl,SO4, TDS, F Field filter	6020, 242A Field filter	9315 Rads 9320 Lab filter	Cl, SO4, TDS, F Lab filter	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	D	N	D	N						X	
PZ-200D	4/2/19	1625	G	Water			X	X	X		X	X	X				
GE4DR	4/3/19	1140	G	Water			X	X	X				X	X	X		

400-168194 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/3/19 1450	RDH	Kathy R Avery	4/3/19 1450	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.5°C IR

Ver: 01/16/2019

5/22/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-168194-2
SDG Number: GSA Delineation Sampling

Login Number: 168194
List Number: 1
Creator: Shannon, Jonathon W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-168194-2
SDG Number: GSA Delineation Sampling

Login Number: 168194
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/05/19 06:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-168194-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD		L2305	04-06-22
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19 *
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-19 *
Hawaii	State Program	9	NA	06-30-19
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19 *
New York	NELAP	2	11616	03-31-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-13	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19 *
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

Geosyntec consultants

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Memorandum

Date:	April 30, 2019
To:	Lane Dorman
From:	Jennifer Pinion
CC:	J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-166592-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous samples, collected 27 February 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166592-1	MW-100
400-166592-2	MW-107
400-166592-3	MW-108

Laboratory ID	Client ID
400-166592-4	MW-306
400-166592-5	MW-307
400-166592-6	MW-101

The chain of custody (COC) and sample receipt checklist indicate the samples were received at 14.5 °C. Samples were received within three hours of collection. The chilling processes had begun to bring samples to a temperature below 4 °C; therefore, no qualifications have been applied to the data based on professional and technical judgement.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 432031). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-166648-1. Metals were not detected in the equipment blank above the MDLs.

1.7 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-166648-1. Metals were not detected in the field blank above the MDLs.

1.8 Field Duplicate

Field duplicates were not collected with the sample set.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 432635). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-166648-1. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-166648-1. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

Field duplicates were not collected with the sample set.

2.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 431730 and 431817, chloride batches 432848, sulfate batches 432984 and 433030, fluoride batches 432348). The wet chemistry parameters were not detected in the method blanks above the MDLs with the following exceptions.

Sulfate was detected at an estimated concentration greater than the MDL and less than the practical quantitation limit (PQL) in the method blank, batch 433030. Therefore, the concentrations of sulfate less than five times the method blank concentration were U* qualified as not detected at the reported concentrations in the associated samples.

Sample ID	Compound	Laboratory Concentration (mg/L)	Laboratory Flag	Validation Concentration (mg/L)	Validation Qualifier*	Reason Code**
MW-108	Sulfate	2.4	I	2.4	U*	BL
MW-101	Sulfate	1.9	I,V	1.9	U*	BL

mg/L- milligram per liter
I –laboratory defined as the reported value is between the laboratory MDL and the PQL
V- laboratory defined as the analyte was detected at or above the MDL in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride and sulfate using sample MW-100. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample MW-100 were high and outside the laboratory specified acceptance criteria. Therefore, the chloride concentration was J qualified as estimated in sample MW-100.

Sample ID	Compound	Laboratory Concentration (mg/L)	Laboratory Flag	Validation Concentration (mg/L)	Validation Qualifier*	Reason Code**
MW-100	Chloride	4.6	NA	4.6	J	M+

mg/L- milligram per liter
NA-not applicable

Batch MS/MSD pair were also reported for to fluoride and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

A sample set specific laboratory duplicate was reported for TDS using sample MW-307. The RPD result was within the laboratory and SOP specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank, EB-01, was collected with the sample set and reported in laboratory report 440-166648-1. The wet chemistry parameters were not detected in the equipment blank above the MDLs.

3.8 Field Blank

One field blank, FB-01, was collected with the sample set and reported in laboratory report 440-166648-1. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

Field duplicates were not collected with the sample set.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	April 29, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-166592-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous samples, collected February 27, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives. The qualified data should be used within the limitations of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166592-1	MW-100
400-166592-2	MW-107
400-166592-3	MW-108

Laboratory ID	Client ID
400-166592-4	MW-306
400-166592-5	MW-307
400-166592-6	MW-101

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combine radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Tracers and Carriers
⊗ Field Blank
✓ Equipment Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 417767). One method blank was reported for the radium-228 data (batch 417774). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported for radium-226 and one LCS was reported for radium-228. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for the radium-226 data. One batch laboratory duplicate was reported for the radium-228 data. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Field Blank

One field blank was collected with the sample set, FB-01, reported in laboratory report 400-166648-2. Radium-226 and -228 were not detected in the field blank above the MDCs, with the following exception.

Radium-228 was detected above the MDC in FB-01. Therefore, the concentrations of radium-228 in the associated samples greater than the MDC with a normalized absolute difference (NAD) less than 2.58 were U* qualified as estimated not-detected at the reported concentration. In addition, the combined radium-226+228 concentrations with a radium-226 concentration greater than MDC and with a radium-228 concentration that was U* qualified were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Laboratory Result (pCi/L)	Validation Qualifier*	Reason Code**
MW-100	Radium-228	0.368	NA	0.368	U*	BF
MW-100	Combined Radium 226 + 228	0.651	NA	0.651	J	BF
MW-107	Radium-228	0.659	NA	0.659	U*	BF
MW-107	Combined Radium 226 + 228	0.912	NA	0.912	J	BF
MW-108	Radium-228	1.48	NA	1.48	U*	BF
MW-108	Combined Radium 226 + 228	1.80	NA	1.80	J	BF
MW-306	Radium-228	0.469	NA	0.469	U*	BF
MW-306	Combined Radium 226 + 228	0.741	NA	0.741	J	BF
MW-101	Radium-228	0.584	NA	0.584	U*	BF
MW-101	Combined Radium 226 + 228	0.827	NA	0.827	J	BF

pCi/L-picocuries per liter
NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.9 Equipment Blank

One equipment blank was collected with the sample set, EB-01, reported in laboratory report 400-166648-2. Radium-226 and -228 was not detected in the equipment blank above the MDCs.

1.10 Field Duplicate

A field duplicate was not reported with the data set.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	April 30, 2019
To:	Lane Dorman
From:	Jennifer Pinion
CC:	J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-166764-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, one field blank, one equipment blank, and two field duplicates, collected 28 February - 5 March 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166764-1	MW-200
400-166764-2	MW-203
400-166764-3	MW-204
400-166764-4	MW-205
400-166764-5	MW-206
400-166764-6	DUP-02

Laboratory ID	Client ID
400-166764-7	FB-02
400-166764-8	EB-02
400-166764-9	DUP-05
400-166764-10	MW-201
400-166764-11	MW-202

Incorrect error corrections were observed on the chain of custody (COC), instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.

1.0 METALS

The samples were analyzed by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 433042 and batch 433043). Metals were not detected in the method blanks above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two batch MS/MSD pair were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-02, was collected with the sample set. Metals were not detected in the equipment blank above the MDLs.

1.7 Field Blank

One field blank, FB-02, was collected with the sample set. Metals were not detected in the field blank above the MDLs.

1.8 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-02 and DUP-05. Acceptable precision [relative percent difference (RPD) < 20% or difference < project quantitation limit (PQL)] was demonstrated between the field duplicates and the original samples MW-205 and MW-201, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 432929 and 432932). Mercury was not detected in the method blanks above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two batch MS/MSD pairs were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

One equipment blank, EB-02, was collected with the sample set. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank, FB-02, was collected with the sample set. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-02 and DUP-05. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicates and the original samples MW-205 and MW-201.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 432107, 432171, 432185, and 432606, chloride batches 433142 and 433709, sulfate batches 433223 and 433751, fluoride batches 433548 and 433828). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride using samples MW-205 and MW-201. The recovery and RPD results were within the laboratory specified acceptance criteria with the following exception.

The recoveries of chloride in the MS/MSD pair using sample MW-201 were low and outside the laboratory specified acceptance criteria. Since the chloride concentration in sample MW-201 was greater than four times the spike concentration, no qualifications were applied to the data, based on professional and technical judgement.

A batch MS/MSD pair was also reported for fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Sample set specific laboratory duplicates were reported for TDS using samples MW-203 and DUP-05 and fluoride using sample MW-205. The RPD result was within the laboratory and SOP specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank, EB-02, was collected with the sample set. Wet chemistry parameters were not detected in the equipment blank above the MDLs.

3.8 Field Blank

One field blank, FB-02, was collected with the sample set. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

Two field duplicate samples were collected with the sample sets, DUP-01 and DUP-02. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicates and the original samples MW-12 and MW-09, respectively.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	April 29, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-166764-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, two field duplicate samples, one equipment blank and one field blank collected February 28 - March 5, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166764-1	MW-200
400-166764-2	MW-203
400-166764-3	MW-204
400-166764-4	MW-205
400-166764-5	MW-206
400-166764-6	DUP-02

Laboratory ID	Client ID
400-166764-7	FB-02
400-166764-8	EB-02
400-166764-9	DUP-05
400-166764-10	MW-201
400-166764-11	MW-202

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combine radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Tracers and Carriers
✓ Field Blank
✓ Equipment Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values

qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 418219 and 418846). Two method blanks were reported for the radium-228 data (batches 418231 and 418851). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Two batch MS/MSD pairs were reported for the radium-226 data. Two batch MS/MSD pairs were reported for the radium-228 data. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported for radium-226 and two LCSs were reported for radium-228. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Field Blank

One field blank was collected with the sample set, FB-02. Radium-226 and -228 were not detected in the field blank above the MDCs.

1.9 Equipment Blank

One equipment blank was collected with the sample set, EB-02. Radium-226 and -228 were not detected in the equipment blank above the MDCs.

1.10 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-02 and DUP-05. Acceptable precision [(relative error ration (RER) (2σ) ≥ 3] was demonstrated between the field duplicates and original samples, MW-205 and MW-201, respectively.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Geosyntec consultants

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Memorandum

Date:	May 16, 2019
To:	Lane Dorman
From:	Kristoffer Henderson
CC:	J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-168194-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of one aqueous sample collected 2 April 2019, as part of the Plant Crist sampling event.

The sample was analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Total and Dissolved Metals by EPA Methods 3005A/6020
- Total and Dissolved Metals Mercury by EPA Method 7470A
- Total Dissolved Solids (TDS) and Field Filtered TDS by Standard Method 2540C
- Total and Dissolved Chloride by Standard Method 4500 CL-E
- Total and Dissolved Fluoride by Standard Method 4500 F C
- Total and Dissolved Sulfate by Standard Method 4500 SO4 E
- Field pH

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following sample was analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-168194-1	PZ-200D

The sample was received at the laboratory within the criteria of 0-6ºC. No sample preservation or sample receipt issues were noted by the laboratory.

Sample GE4DR was listed on the chain of custody (COC); however, the sample was canceled by the client and was not reported.

1.0 TOTAL AND DISSOLVED METALS

The sample was analyzed for metals by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Total and Dissolved Assessment
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 437384). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

Equipment blanks were not collected with the sample set.

1.7 Field Blank

Field blanks were not collected with the sample set.

1.8 Field Duplicate

Field duplicates were not collected with the sample set.

1.9 Total and Dissolved Assessment

The sample was analyzed for both total and dissolved metals. The total metals results were greater than or equal to the dissolved metals results.

1.10 Sensitivity

The sample was reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.11 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 TOTAL AND DISSOLVED MERCURY

The sample was analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Total and Dissolved Assessment
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 437150). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

Equipment blanks were not collected with the sample set.

2.7 Field Blank

Field blanks were not collected with the sample set.

2.8 Field Duplicate

Field duplicates were not collected with the sample set.

2.9 Total and Dissolved Assessment

The sample was analyzed for both total and dissolved mercury. The total mercury result was greater than or equal to the dissolved mercury result.

2.10 Sensitivity

The sample was reported to the MDL. Elevated non-detect results were not reported.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The sample was analyzed for total and dissolved chloride by Standard Method 4500 Cl-E, total and dissolved fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS and field filtered TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Total and Dissolved Assessment
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 436020, chloride batch 437484, sulfate batch 437533 and fluoride batch 436905). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Batch MS/MSD pairs were reported for fluoride, chloride and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Batch laboratory duplicates were reported for TDS and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

Equipment blanks were not collected with the sample set.

3.8 Field Blank

Field blanks were not collected with the sample set.

3.9 Field Duplicate

Field duplicates were not collected with the sample set.

3.10 Total and Dissolved Assessment

The sample was analyzed for both total and dissolved chloride, fluoride and sulfate and both TDS and field filtered TDS. The total chloride, fluoride and sulfate results were greater than or equal to the dissolved chloride, fluoride and sulfate results and the TDS result was greater than or equal to the field filtered TDS result.

3.11 Sensitivity

The sample was reported to the MDLs. Elevated non-detect results were not reported.

3.12 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	June 6, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Numbers 440-168194-2 and 440-168194-4**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of one aqueous sample collected April 2, 2019, as part of the Plant Crist CCR sampling event.

The sample was analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Total and Dissolved Radium-226 by EPA Method 9315
- Total and Dissolved Radium-228 by EPA Method 9320
- Total and Dissolved Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following sample was analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-168194-1	PZ-200D

Laboratory report 400-168194-4 was generated by the laboratory to correct the dissolved combined radium 226 + 228 result. The incorrect result in laboratory report 400-168194-2 was R qualified as rejected.

1.0 RADIOCHEMISTRY

The sample was analyzed for total and dissolved radium-226 by EPA method 9315, total and dissolved radium-228 by EPA method 9320 and total and dissolved combine radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Carriers
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Total and Dissolved Assessment
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 424080 and 424884) and two method blanks were reported for the radium-228 data (batches 424240 and 424886). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

One batch MS/MSD pair was reported for the radium-226 data and one batch MS/MSD pair was reported for the radium-228 data. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and one LCS/LCS duplicate (LCSD) pair were reported for radium-226 and one LCS and one LCS/LCSD pair were reported for radium-228. The recovery and replicate error ratio (RER) results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Carriers

Carriers were reported for the radium-226 and radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Field Blank

A field blank was not collected with the sample set.

1.9 Equipment Blank

An equipment blank was not collected with the sample set.

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1.10 Field Duplicate

A field duplicate was not collected with the sample set.

1.11 Sensitivity

The sample was reported to the MDCs. No elevated non-detect results were reported.

1.12 Total and Dissolved Assessment

The sample was analyzed for total and dissolved radium-226 and radium-228. The total radium-226 concentration was greater than the dissolved radium-228 concentration. However, the dissolved radium-228 concentration was greater than the total radium-228 concentration. Since the RER between the total and dissolved radium-228 concentrations was less than 3, no qualifications were applied to the data.

1.13 Electronic Data Deliverables (EDDs) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	April 30, 2019
To:	Lane Dorman
From:	Jennifer Pinion
CC:	J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable– Eurofins TestAmerica Job IDs 400-166941-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four aqueous samples and two field duplicate samples, collected 5-6 March 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by EPA Methods 3005A/6020
- Mercury by EPA Methods 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166941-1	PZ-200S
400-166941-2	GSA-2S
400-166941-3	PZ-201D

Laboratory ID	Client ID
400-166941-4	GE-1D
400-166941-5	DUP-06
400-166941-6	DUP-07

Samples PZ-200D and GE-4DR were listed on the chain of custody (COC); however, no sample collection date and time were listed with the samples. In addition, the samples were not logged in by the laboratory. Additional information from the client indicated that the samples were collected but were not reported due to issues with analyses.

1.0 METALS

The samples were analyzed by EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total

number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 433805). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample specific MS/MSD pair was reported using sample PZ-200S. The recovery and relative percent difference (RPD) results were within laboratory specified acceptance criteria with the following exceptions.

The MS/MSD recoveries of boron and MS recovery of calcium were high and outside the laboratory specified acceptance criteria and the MSD recovery of calcium was low and outside the laboratory specified acceptance criteria. Since the concentrations of boron and calcium were greater than four times the spike concentrations, no qualifications have been applied to the data, based on professional and technical judgement.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Equipment Blank

Equipment blanks were not collected with the sample set.

1.7 Field Blank

Field blanks were not collected with the sample set.

1.8 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-06 and DUP-07. Acceptable precision [relative percent difference (RPD) < 20% or difference < practical quantitation limit (PQL)] was demonstrated between the field duplicates and the original samples, PZ-200S and GE-ID.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 433992). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since this was batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory and SOP specified acceptance criteria.

2.6 Equipment Blank

Equipment blanks were not collected with the sample set.

2.7 Field Blank

Field blanks were not collected with the sample set.

2.8 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-06 and DUP-07. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicates and the original samples, PZ-200S and GE-ID.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batch 432606, chloride batch 433871, sulfate batch 433957 and fluoride batch 433876). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Batch MS/MSD pair were also reported for chloride, fluoride, and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

Equipment blanks were not collected with the sample set.

3.8 Field Blank

Field blanks were not collected with the sample set.

3.9 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-06 and DUP-07. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicates and the original samples, PZ-200S and GE-ID.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	April 29, 2018
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-166941-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of four aqueous samples and two field duplicate samples collected March 5-6, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-166941-1	PZ-200S
400-166941-2	GSA-2S
400-166941-3	PZ-201D

Laboratory ID	Client ID
400-166941-4	GE-1D
400-166941-5	DUP-06
400-166941-6	DUP-07

Samples PZ-200D and GE-4DR were listed on the chain of custody (COC); however, no sample collection date and time were listed with the samples. In addition, the samples were not logged in by the laboratory. Additional information from the client indicated that the samples were collected but were not reported due to issues with the analyses.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combine radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Tracers and Carriers
✓ Field Blank
✓ Equipment Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 419090 and 419103). Two method blanks were reported for the radium-228 data (batches 419100 and 419136). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

One batch MS/MSD pair was reported for the radium-226 data. Two batch MS/MSD pairs were reported for the radium-228 data. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported for radium-226 and two LCSs were reported for radium-228. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for the radium-226 data. One batch laboratory duplicate was reported for the radium-228 data. One batch laboratory duplicate was reported for the combined radium-226+228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.8 Field Blank

A field blank was not collected with the sample set.

1.9 Equipment Blank

An equipment blank was not collected with the sample set.

1.10 Field Duplicate

Two field duplicate samples were collected with the sample set, DUP-06 and DUP-07. Acceptable precision [(relative error ration (RER) (2σ) ≥ 3] was demonstrated between the field duplicates and original samples, PZ-200S and GE-1D, respectively.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Product Name: Low-Flow System

Date: 2019-05-31 10:49:24

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	113.1 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	94.11 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:32:42	300.06	25.04	4.93	22.96	2.64	94.15	8.63	153.71
Last 5	10:37:42	600.04	24.98	4.93	22.94	2.01	94.15	8.64	152.97
Last 5	10:42:42	900.04	24.84	4.92	22.94	1.95	94.15	8.62	152.78
Last 5	10:47:42	1200.05	24.96	4.92	22.94	1.92	94.15	8.63	153.29
Last 5									
Variance 0			-0.06	0.00	-0.02			0.01	-0.74
Variance 1			-0.14	-0.00	-0.00			-0.01	-0.18
Variance 2			0.12	-0.01	0.00			0.01	0.51

Notes

Sample time @ 1050. Sunny 85.

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-31 08:35:20

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Background	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	100 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	93 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	67.75 ft	Total Volume Pumped	22 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:13:22	2100.03	23.18	4.81	39.13	7.41	67.76	8.51	126.64
Last 5	08:18:22	2400.03	23.05	4.82	39.13	5.82	67.76	8.54	124.52
Last 5	08:23:22	2700.03	23.11	4.83	39.00	4.03	67.76	8.51	122.74
Last 5	08:28:22	3000.03	22.99	4.84	38.89	2.72	67.76	8.50	121.33
Last 5	08:33:22	3300.02	23.05	4.84	38.89	1.73	67.76	8.51	120.12
Variance 0			0.06	0.01	-0.13			-0.03	-1.78
Variance 1			-0.11	0.00	-0.11			-0.01	-1.41
Variance 2			0.06	0.01	0.01			0.01	-1.21

Notes

Sample@0834, cloudy 81

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-31 10:13:33

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Background	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	126 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	99.84 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:52:20	1500.02	24.06	4.92	34.25	14.20	99.84	8.98	117.11
Last 5	09:57:20	1800.03	23.56	4.92	34.21	5.56	99.84	9.06	116.20
Last 5	10:02:20	2100.03	23.62	4.92	34.19	2.99	99.84	9.05	115.48
Last 5	10:07:20	2400.02	23.79	4.93	34.28	2.56	99.84	9.02	115.08
Last 5	10:12:20	2700.02	23.78	4.92	34.31	2.21	99.84	9.05	115.15
Variance 0			0.06	-0.00	-0.02			-0.01	-0.73
Variance 1			0.17	0.01	0.08			-0.02	-0.40
Variance 2			-0.00	-0.01	0.03			0.02	0.07

Notes

Sample@1013, partly sunny 82

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-31 11:32:28

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	CCR Background	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	121 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	104 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	88.94 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:11:11	300.03	23.50	4.88	48.24	5.17	88.95	7.80	126.25
Last 5	11:16:11	600.02	23.34	4.89	48.46	1.77	88.95	8.04	121.17
Last 5	11:21:11	900.03	23.30	4.89	48.65	1.31	88.95	8.10	119.19
Last 5	11:26:11	1200.02	23.12	4.89	48.49	0.50	88.95	8.13	118.01
Last 5	11:31:11	1500.03	23.11	4.90	48.50	0.43	88.95	8.14	116.60
Variance 0			-0.03	-0.00	0.19			0.06	-1.98
Variance 1			-0.19	0.00	-0.15			0.03	-1.18
Variance 2			-0.01	0.00	0.01			0.02	-1.41

Notes

Sample @1131, Partly Sunny 86

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-31 08:45:06

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	88.2 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6440251 L
Well Total Depth	93.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	8.4 in
Depth to Water	54.93 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:22:20	900.04	24.15	4.91	30.15	1.25	55.00	8.04	107.08
Last 5	08:27:20	1200.04	24.07	4.90	29.58	1.30	55.00	8.05	113.89
Last 5	08:32:20	1500.04	24.06	4.87	29.20	1.27	55.00	8.02	119.94
Last 5	08:37:20	1800.05	24.08	4.86	29.07	1.22	55.00	8.06	124.18
Last 5	08:42:20	2100.04	24.06	4.89	28.87	1.28	55.00	8.04	127.24
Variance 0			-0.01	-0.03	-0.38			-0.03	6.05
Variance 1			0.03	-0.01	-0.13			0.04	4.24
Variance 2			-0.03	0.02	-0.20			-0.02	3.06

Notes

Sample time @ 0845. PC 82. DUP-01 @0745.

Grab Samples

Product Name: Low-Flow System

Date: 2019-05-31 09:45:32

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	125 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	118.2 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7779279 L
Well Total Depth	123.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12.96 in
Depth to Water	89.27 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:32:48	300.04	24.32	5.46	29.99	2.04	90.35	0.38	160.99
Last 5	09:37:48	600.04	24.47	5.46	29.51	1.90	90.35	0.25	158.11
Last 5	09:42:48	900.04	24.48	5.45	29.14	1.94	90.35	0.30	156.24
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.15	0.00	-0.47			-0.13	-2.88
Variance 2			0.00	-0.01	-0.37			0.04	-1.87

Notes

Sample time @ 0950. PC 82.

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 07:41:03

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.15 in
Depth to Water	18.36 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:19:18	600.02	21.54	5.35	1706.79	1.12	18.51	1.21	134.78
Last 5	07:24:18	900.03	21.60	5.33	1647.69	1.34	18.51	1.13	133.61
Last 5	07:29:18	1200.02	21.64	5.31	1571.90	1.46	18.51	1.06	135.57
Last 5	07:34:18	1500.03	21.71	5.29	1534.03	1.12	18.51	1.01	136.67
Last 5	07:39:18	1800.02	21.74	5.27	1526.81	0.78	18.51	0.98	134.98
Variance 0			0.05	-0.02	-75.79			-0.07	1.96
Variance 1			0.06	-0.02	-37.87			-0.05	1.09
Variance 2			0.03	-0.02	-7.22			-0.03	-1.69

Notes

Sample@0740, Sunny 76

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 09:15:27

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	48.32 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:48:25	1500.03	24.17	4.86	666.41	8.39	48.33	0.75	130.63
Last 5	08:53:25	1800.02	24.07	4.86	671.93	6.31	48.33	0.71	129.73
Last 5	08:58:25	2100.02	24.23	4.86	669.59	5.13	48.33	0.70	128.72
Last 5	09:03:25	2400.02	24.37	4.86	672.26	4.67	48.33	0.68	128.77
Last 5	09:08:25	2700.03	24.30	4.85	674.26	2.41	48.33	0.67	128.75
Variance 0			0.16	-0.00	-2.34			-0.02	-1.01
Variance 1			0.14	-0.01	2.66			-0.01	0.05
Variance 2			-0.07	-0.00	2.00			-0.02	-0.02

Notes

Sample @0914, DUP-03@0814, Sunny 80

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 11:48:51

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	62 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	51.03 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:22:22	2400.02	26.60	4.73	107.03	3.66	51.03	3.11	387.53
Last 5	11:27:22	2700.03	26.69	4.75	106.37	3.47	51.03	3.31	381.40
Last 5	11:32:22	3000.03	26.78	4.78	107.32	3.40	51.03	3.10	374.98
Last 5	11:37:22	3300.03	26.64	4.78	105.89	2.77	51.03	3.20	373.22
Last 5	11:42:22	3600.03	26.65	4.80	104.56	2.29	51.03	3.24	370.66
Variance 0			0.09	0.03	0.95			-0.21	-6.42
Variance 1			-0.14	-0.01	-1.43			0.10	-1.76
Variance 2			0.00	0.02	-1.33			0.04	-2.56

Notes

Sample @1147, Sunny 93

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 08:34:23

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5324396 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.36 in
Depth to Water	44.72 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:08:55	3000.05	24.99	4.69	264.99	3.06	44.75	0.26	134.30
Last 5	08:13:55	3300.06	25.01	4.69	265.52	2.75	44.75	0.26	134.68
Last 5	08:18:56	3601.05	25.06	4.69	265.40	2.12	44.75	0.25	134.97
Last 5	08:23:56	3901.05	25.06	4.70	264.94	2.02	44.75	0.25	135.46
Last 5	08:28:56	4201.05	25.23	4.70	264.86	1.94	44.75	0.25	135.92
Variance 0			0.04	0.01	-0.12			-0.00	0.30
Variance 1			0.00	0.00	-0.46			-0.00	0.49
Variance 2			0.18	0.00	-0.08			-0.00	0.46

Notes

Sample time @ 0835. Sunny 86. FB-03@ 0820.

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 09:41:19

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10.8 in
Depth to Water	13.40 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:23:42	300.11	24.33	4.31	852.57	1.20	14.30	0.09	203.36
Last 5	09:28:42	600.05	24.27	4.31	857.32	1.09	14.30	0.07	200.19
Last 5	09:33:44	902.05	24.33	4.31	870.74	0.95	14.30	0.06	197.26
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.06	0.00	4.76			-0.02	-3.17
Variance 2			0.06	-0.00	13.42			-0.00	-2.93

Notes

Sample time@ 0940. Sunny 87. EB-03@ 0900.

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 11:09:31

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.8 ft

Well Information:		Pumping Information:	
Well ID	MW-205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	32.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	16.32 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:42:31	900.05	23.70	4.98	225.75	1.33	16.34	4.08	174.44
Last 5	10:47:31	1200.06	23.79	4.97	251.23	1.26	16.34	3.98	173.31
Last 5	10:52:31	1500.06	23.85	4.96	261.97	1.10	16.34	3.94	170.71
Last 5	10:57:31	1800.05	23.82	4.96	269.72	1.04	16.34	3.94	168.12
Last 5	11:07:31	2400.05	23.92	4.96	273.26	0.98	16.34	3.90	163.31
Variance 0			0.06	-0.01	10.74			-0.04	-2.60
Variance 1			-0.03	0.00	7.75			0.00	-2.59
Variance 2			0.10	0.01	3.54			-0.04	-4.81

Notes

Sample time @ 1110. Sunny 90.

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-04 06:29:29

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	26.74 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:05:20	300.03	22.35	5.05	236.64	2.80	26.77	0.95	155.89
Last 5	06:10:20	600.03	22.35	4.63	2850.47	2.16	26.77	0.43	145.90
Last 5	06:15:20	900.03	22.39	4.67	2918.95	0.60	26.77	0.39	130.83
Last 5	06:20:20	1200.02	22.40	4.68	2911.54	0.43	26.77	0.36	125.07
Last 5	06:25:20	1500.02	22.48	4.69	2913.07	0.37	26.77	0.37	121.25
Variance 0			0.04	0.03	68.48			-0.03	-15.06
Variance 1			0.01	0.01	-7.41			-0.04	-5.76
Variance 2			0.08	0.01	1.53			0.01	-3.82

Notes

Sample @0628, Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-07 07:26:18

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	BP
Company Name	RDH	Tubing Type	PE
Project Name	GSA Delineation	Tubing Diameter	.17 in
Site Name	Crist GSA Wells	Tubing Length	190 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	183.2 ft

Well Information:		Pumping Information:	
Well ID	PZ-201D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	1.06805 L
Well Total Depth	188.2 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	18 in
Depth to Water	44.44 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:04:43	2400.02	23.72	7.34	129.63	9.66	46.12	0.21	-72.68
Last 5	07:09:44	2701.02	23.36	7.33	129.42	9.73	46.12	0.20	-71.86
Last 5	07:14:44	3001.02	23.20	7.34	129.43	9.87	46.12	0.19	-72.27
Last 5	07:19:44	3301.02	23.13	7.34	129.29	9.95	46.12	0.18	-72.21
Last 5	07:24:44	3601.02	23.11	7.35	129.34	9.76	46.12	0.17	-72.91
Variance 0			-0.16	0.01	0.01			-0.01	-0.41
Variance 1			-0.07	-0.00	-0.14			-0.01	0.06
Variance 2			-0.02	0.01	0.05			-0.01	-0.70

Notes

Sample@0725, partly Sunny 78

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-07 10:38:10

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	GSA Delineation	Tubing Diameter	.17 in
Site Name	Crist GSA Wells	Tubing Length	154 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	146.4 ft

Well Information:		Pumping Information:	
Well ID	PZ-200D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7773672 L
Well Total Depth	151.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.01 in
Depth to Water	5.75 ft	Total Volume Pumped	52 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:12:30	6603.02	21.93	6.69	117.69	32.20	5.76	0.06	-22.97
Last 5	10:17:30	6903.02	21.99	6.69	117.65	31.90	5.76	0.06	-22.58
Last 5	10:22:30	7203.02	21.91	6.70	117.65	32.40	5.76	0.06	-22.24
Last 5	10:27:30	7503.02	21.98	6.70	116.94	33.00	5.76	0.06	-22.38
Last 5	10:32:35	7808.02	22.04	6.71	117.61	33.40	5.76	0.06	-22.33
Variance 0			-0.08	0.00	0.01			-0.00	0.34
Variance 1			0.06	0.00	-0.71			-0.00	-0.14
Variance 2			0.06	0.01	0.67			-0.00	0.04

Notes

Sample@1037, Filtered sample also 1.0um

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-07 13:06:03

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	GSA Delineation	Tubing Diameter	.17 in
Site Name	Crist GSA Wells	Tubing Length	105 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	Hach	Pump placement from TOC	97.5 ft

Well Information:		Pumping Information:	
Well ID	GE-1D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5586594 L
Well Total Depth	102.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19 in
Depth to Water	16.76 ft	Total Volume Pumped	36 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:44:32	4202.02	23.10	5.09	116.35	1.71	18.10	3.40	125.01
Last 5	12:49:32	4502.02	23.20	5.16	153.36	1.89	18.10	3.41	123.32
Last 5	12:54:35	4805.02	23.29	5.03	115.23	1.73	18.10	3.46	125.22
Last 5	12:59:35	5105.02	23.11	4.99	110.88	1.42	18.10	3.47	127.78
Last 5	13:04:35	5405.02	23.24	4.98	112.96	1.36	18.10	3.53	128.38
Variance 0			0.08	-0.13	-38.13			0.04	1.90
Variance 1			-0.17	-0.03	-4.35			0.01	2.57
Variance 2			0.13	-0.02	2.08			0.06	0.60

Notes

Sample@1305, DUP-01@1205, partly sunny 80

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-07 17:01:46

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	Crist CCR Delineation	Tubing Diameter	.17 in
Site Name	Crist GSA Wells	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	PZ-200S	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3985369 L
Well Total Depth	33.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.05 in
Depth to Water	6.71 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:35:06	2400.02	22.73	4.75	1294.28	6.47	6.76	0.18	210.77
Last 5	16:40:06	2700.02	22.69	4.75	1252.91	5.27	6.76	0.18	215.05
Last 5	16:45:06	3000.02	22.71	4.76	1232.17	2.71	6.76	0.18	220.30
Last 5	16:50:06	3300.02	22.73	4.75	1247.54	1.33	6.76	0.19	225.20
Last 5	16:55:06	3600.02	22.89	4.75	1234.09	1.91	6.76	0.20	228.84
Variance 0			0.02	0.01	-20.73			0.00	5.26
Variance 1			0.02	-0.01	15.36			0.01	4.90
Variance 2			0.17	0.00	-13.44			0.01	3.64

Notes

Sample time 1700. EB-01 sample time 1550. P/C 88.

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-05 09:04:30

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist GSA	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	56 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	49.55 ft

Well Information:		Pumping Information:	
Well ID	GSA-2s	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3399517 L
Well Total Depth	54.55 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	22.50 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:48:05	300.09	25.42	4.31	583.96	0.56	22.52	1.61	138.63
Last 5	08:53:05	600.07	25.28	4.29	608.30	0.40	22.52	1.44	139.16
Last 5	08:58:05	900.07	25.28	4.29	621.22	0.42	22.52	1.42	139.46
Last 5	09:03:05	1200.06	25.30	4.29	620.09	0.38	22.52	1.41	139.59
Last 5									
Variance 0			-0.14	-0.02	24.34			-0.17	0.53
Variance 1			0.01	0.00	12.92			-0.02	0.30
Variance 2			0.02	0.00	-1.12			-0.01	0.13

Notes

Sample time @ 0905. Cloudy 85.

Grab Samples

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170945-1
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/30/2019 2:45:42 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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

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

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Job ID: 400-170945-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170945-1

Metals

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 400-447436 recovered above the upper control limit for Boron. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4) and MW-307 (400-170945-6).

Method(s) 6020: The method blank for preparation batch 400-446508 and analytical batch 400-451881 contained Ba and Ca above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 400-454169 recovered above the upper control limit for Boron. The samples associated with this CCV will need to be reanalyzed: MW-100 (400-170945-1), MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4), MW-306 (400-170945-5) and MW-307 (400-170945-6).

Method(s) 6020: The CCB for analytical batch 400-454169 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The method blank for preparation batch 400-446508 and analytical batch 400-454608 contained Arsenic and Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-443181 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-100 — Lab Sample ID: 400-170945-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.020		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.76		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00046	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0021	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	46		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.90				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-101 — Lab Sample ID: 400-170945-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0088		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.28		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0013	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Chloride	5.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-170945-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.013		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.33		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0017	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-170945-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0017	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.3	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-170945-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-306 (Continued) — Lab Sample ID: 400-170945-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.45		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0015	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.89				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-170945-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.016		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.52		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0026	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	18		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.45				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-170945-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	0.57		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0013	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0016		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00014	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.89				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170945-1	MW-100	Water	05/31/19 11:31	05/31/19 15:00	
400-170945-2	MW-101	Water	05/31/19 10:50	05/31/19 15:00	
400-170945-3	MW-107	Water	05/31/19 10:13	05/31/19 15:00	
400-170945-4	MW-108	Water	05/31/19 08:34	05/31/19 15:00	
400-170945-5	MW-306	Water	05/31/19 08:45	05/31/19 15:00	
400-170945-6	MW-307	Water	05/31/19 09:50	05/31/19 15:00	
400-170945-7	DUP-01	Water	05/31/19 07:45	05/31/19 15:00	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-100

Date Collected: 05/31/19 11:31
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:13	5
Barium	**0.020**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:13	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 19:48	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:13	5
Calcium	**0.76**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:25	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:13	5
Cobalt	**0.00046**	**I**	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:25	5
Lithium	**0.0021**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:13	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:13	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:25	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:42	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**46**		5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**5.1**		2.0	1.4	mg/L			06/17/19 11:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:00	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.90**				SU			05/31/19 11:31	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-101

Date Collected: 05/31/19 10:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:17	5
Barium	**0.0088**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:17	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 19:53	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:17	5
Calcium	**0.28**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:30	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:17	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:17	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:30	5
Lithium	**0.0013**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:17	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:17	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:17	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:30	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**5.0**		2.0	1.4	mg/L			06/17/19 11:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:08	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.92**				SU			05/31/19 10:50	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-107

Date Collected: 05/31/19 10:13
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:21	5
Barium	**0.013**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:21	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:21	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 19:59	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:21	5
Calcium	**0.33**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:36	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:21	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:21	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:36	5
Lithium	**0.0017**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:21	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:21	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:21	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:36	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**5.4**		2.0	1.4	mg/L			06/17/19 11:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.92**				SU			05/31/19 10:13	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-108

Date Collected: 05/31/19 08:34
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:25	5
Barium	**0.010**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:25	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:25	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 20:10	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:25	5
Calcium	**1.1**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:41	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:25	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:25	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:41	5
Lithium	**0.0017**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:25	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:25	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:25	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:41	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**4.5**		2.0	1.4	mg/L			06/17/19 11:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:15	1
Sulfate	**3.3**	**I**	5.0	1.4	mg/L			06/17/19 09:54	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.84**				SU			05/31/19 08:34	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-306

Date Collected: 05/31/19 08:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:49	5
Barium	**0.014**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:49	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:49	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 20:15	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:49	5
Calcium	**0.45**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:47	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:49	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:49	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:47	5
Lithium	**0.0015**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:49	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:49	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:49	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:49	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			06/04/19 10:21	1
Chloride	**5.4**		2.0	1.4	mg/L			06/17/19 11:15	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:19	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.89**				SU			05/31/19 08:45	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-307

Date Collected: 05/31/19 09:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 23:53	5
Barium	**0.016**		0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 23:53	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:53	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	08/28/19 20:21	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 23:53	5
Calcium	**0.52**		0.25	0.13	mg/L		07/02/19 09:30	08/02/19 02:52	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 23:53	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 23:53	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/02/19 02:52	5
Lithium	**0.0026**	**I**	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 23:53	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 23:53	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 23:53	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/02/19 02:52	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**18**		5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**3.7**		2.0	1.4	mg/L			06/17/19 11:22	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:23	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.45**				SU			05/31/19 09:50	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: DUP-01
Date Collected: 05/31/19 07:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-7
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 15:39	5
Barium	**0.014**		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 15:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:39	5
Boron	0.021	U	0.050	0.021	mg/L		07/03/19 10:17	07/05/19 15:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:39	5
Calcium	**0.57**		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 15:39	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/03/19 10:17	07/05/19 15:39	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 15:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 15:39	5
Lithium	**0.0013**	**I**	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 15:39	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/03/19 10:17	07/05/19 15:39	5
Selenium	**0.0016**		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 15:39	5
Thallium	**0.00014**	**I**	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 15:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:48	06/18/19 13:53	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			06/03/19 13:13	1
Chloride	**5.0**		2.0	1.4	mg/L			06/17/19 11:22	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 13:27	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 10:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.89**				SU			05/31/19 07:45	1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-100
Date Collected: 05/31/19 11:31
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:13	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:25	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 19:48	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:42	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 11:31	MCS	TAL PEN

Client Sample ID: MW-101
Date Collected: 05/31/19 10:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:17	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:30	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 19:53	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:08	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 10:50	MCS	TAL PEN

Client Sample ID: MW-107
Date Collected: 05/31/19 10:13
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:21	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:36	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 19:59	AC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-107
Date Collected: 05/31/19 10:13
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 10:13	MCS	TAL PEN

Client Sample ID: MW-108
Date Collected: 05/31/19 08:34
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:25	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:41	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 20:10	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 09:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 08:34	MCS	TAL PEN

Client Sample ID: MW-306
Date Collected: 05/31/19 08:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:49	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:47	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 20:15	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:49	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443147	06/04/19 10:21	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:19	BAB	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Client Sample ID: MW-306
Date Collected: 05/31/19 08:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 08:45	MCS	TAL PEN

Client Sample ID: MW-307
Date Collected: 05/31/19 09:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447436	07/09/19 23:53	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	450551	08/02/19 02:52	AC	TAL PEN
Total Recoverable	Prep	3005A			446508	07/02/19 09:30	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454608	08/28/19 20:21	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 09:50	MCS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 05/31/19 07:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 15:39	AC	TAL PEN
Total/NA	Prep	7470A			444687	06/17/19 09:48	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 13:53	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443030	06/03/19 13:13	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444723	06/17/19 11:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443181	06/04/19 13:27	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444698	06/17/19 10:00	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	05/31/19 07:45	MCS	TAL PEN

Laboratory References:
TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 444687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	7470A	
400-170945-2	MW-101	Total/NA	Water	7470A	
400-170945-3	MW-107	Total/NA	Water	7470A	
400-170945-4	MW-108	Total/NA	Water	7470A	
400-170945-5	MW-306	Total/NA	Water	7470A	
400-170945-6	MW-307	Total/NA	Water	7470A	
400-170945-7	DUP-01	Total/NA	Water	7470A	
MB 400-444687/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-444687/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-171342-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	
400-171342-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 444887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	7470A	444687
400-170945-2	MW-101	Total/NA	Water	7470A	444687
400-170945-3	MW-107	Total/NA	Water	7470A	444687
400-170945-4	MW-108	Total/NA	Water	7470A	444687
400-170945-5	MW-306	Total/NA	Water	7470A	444687
400-170945-6	MW-307	Total/NA	Water	7470A	444687
400-170945-7	DUP-01	Total/NA	Water	7470A	444687
MB 400-444687/14-A	Method Blank	Total/NA	Water	7470A	444687
LCS 400-444687/15-A	Lab Control Sample	Total/NA	Water	7470A	444687
400-171342-D-1-B MS	Matrix Spike	Total/NA	Water	7470A	444687
400-171342-D-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	444687

Prep Batch: 446508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total Recoverable	Water	3005A	
400-170945-2	MW-101	Total Recoverable	Water	3005A	
400-170945-3	MW-107	Total Recoverable	Water	3005A	
400-170945-4	MW-108	Total Recoverable	Water	3005A	
400-170945-5	MW-306	Total Recoverable	Water	3005A	
400-170945-6	MW-307	Total Recoverable	Water	3005A	
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-170870-B-8-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-170870-B-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 446685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-7	DUP-01	Total Recoverable	Water	3005A	
MB 400-446685/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446685/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-170945-7 MS	DUP-01	Total Recoverable	Water	3005A	
400-170945-7 MSD	DUP-01	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 446993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-7	DUP-01	Total Recoverable	Water	6020	446685
MB 400-446685/1-A ^5	Method Blank	Total Recoverable	Water	6020	446685
LCS 400-446685/2-A	Lab Control Sample	Total Recoverable	Water	6020	446685
400-170945-7 MS	DUP-01	Total Recoverable	Water	6020	446685
400-170945-7 MSD	DUP-01	Total Recoverable	Water	6020	446685

Analysis Batch: 447436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total Recoverable	Water	6020	446508
400-170945-2	MW-101	Total Recoverable	Water	6020	446508
400-170945-3	MW-107	Total Recoverable	Water	6020	446508
400-170945-4	MW-108	Total Recoverable	Water	6020	446508
400-170945-5	MW-306	Total Recoverable	Water	6020	446508
400-170945-6	MW-307	Total Recoverable	Water	6020	446508
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508
400-170870-B-8-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	446508
400-170870-B-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	446508

Analysis Batch: 450551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total Recoverable	Water	6020	446508
400-170945-2	MW-101	Total Recoverable	Water	6020	446508
400-170945-3	MW-107	Total Recoverable	Water	6020	446508
400-170945-4	MW-108	Total Recoverable	Water	6020	446508
400-170945-5	MW-306	Total Recoverable	Water	6020	446508
400-170945-6	MW-307	Total Recoverable	Water	6020	446508
MB 400-446508/1-A ^5	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	446508
400-170870-B-8-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	446508
400-170870-B-8-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	446508

Analysis Batch: 451120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	446508

Analysis Batch: 451275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508

Analysis Batch: 451881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508

Analysis Batch: 454169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508

Metals

Analysis Batch: 454434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508

Analysis Batch: 454608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total Recoverable	Water	6020	446508
400-170945-2	MW-101	Total Recoverable	Water	6020	446508
400-170945-3	MW-107	Total Recoverable	Water	6020	446508
400-170945-4	MW-108	Total Recoverable	Water	6020	446508
400-170945-5	MW-306	Total Recoverable	Water	6020	446508
400-170945-6	MW-307	Total Recoverable	Water	6020	446508
MB 400-446508/1-A	Method Blank	Total Recoverable	Water	6020	446508
LCS 400-446508/2-A	Lab Control Sample	Total Recoverable	Water	6020	446508

General Chemistry

Analysis Batch: 443030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	SM 2540C	
400-170945-2	MW-101	Total/NA	Water	SM 2540C	
400-170945-3	MW-107	Total/NA	Water	SM 2540C	
400-170945-4	MW-108	Total/NA	Water	SM 2540C	
400-170945-6	MW-307	Total/NA	Water	SM 2540C	
400-170945-7	DUP-01	Total/NA	Water	SM 2540C	
MB 400-443030/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-443030/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-170943-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 443147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-5	MW-306	Total/NA	Water	SM 2540C	
MB 400-443147/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-443147/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171002-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 443181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	SM 4500 F C	
400-170945-2	MW-101	Total/NA	Water	SM 4500 F C	
400-170945-3	MW-107	Total/NA	Water	SM 4500 F C	
400-170945-4	MW-108	Total/NA	Water	SM 4500 F C	
400-170945-5	MW-306	Total/NA	Water	SM 4500 F C	
400-170945-6	MW-307	Total/NA	Water	SM 4500 F C	
400-170945-7	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-443181/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-443181/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-170869-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-170869-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-170945-1 DU	MW-100	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

General Chemistry

Analysis Batch: 444698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-170945-2	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-170945-3	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-170945-4	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-170945-5	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-170945-6	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-170945-7	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-444698/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444698/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444698/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-170945-4 MS	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-170945-4 MSD	MW-108	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
400-170945-2	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-170945-3	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-170945-4	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-170945-5	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-170945-6	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-170945-7	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-444723/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444723/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444723/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-170945-4 MS	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-170945-4 MSD	MW-108	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 445517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	Field Sampling	
400-170945-2	MW-101	Total/NA	Water	Field Sampling	
400-170945-3	MW-107	Total/NA	Water	Field Sampling	
400-170945-4	MW-108	Total/NA	Water	Field Sampling	
400-170945-5	MW-306	Total/NA	Water	Field Sampling	
400-170945-6	MW-307	Total/NA	Water	Field Sampling	
400-170945-7	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451120

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	08/03/19 16:33	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	08/03/19 16:33	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	08/03/19 16:33	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	08/03/19 16:33	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/03/19 16:33	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	08/03/19 16:33	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	08/03/19 16:33	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/03/19 16:33	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/03/19 16:33	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	08/03/19 16:33	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	08/03/19 16:33	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/03/19 16:33	5

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451275

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/06/19 22:35	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/06/19 22:35	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/06/19 22:35	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 09:30	08/06/19 22:35	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/06/19 22:35	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/02/19 09:30	08/06/19 22:35	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/06/19 22:35	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/06/19 22:35	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/06/19 22:35	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 451881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 09:30	08/11/19 00:44	1
Barium	0.00290		0.00050	0.000098	mg/L		07/02/19 09:30	08/11/19 00:44	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/11/19 00:44	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/11/19 00:44	1
Calcium	6.71		0.050	0.025	mg/L		07/02/19 09:30	08/11/19 00:44	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/02/19 09:30	08/11/19 00:44	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/11/19 00:44	1
Lithium	0.000362	I	0.0010	0.00022	mg/L		07/02/19 09:30	08/11/19 00:44	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/11/19 00:44	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/02/19 09:30	08/11/19 00:44	1

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

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000126	I	0.00025	0.000092	mg/L		07/02/19 09:30	08/26/19 17:25	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/26/19 17:25	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/26/19 17:25	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/26/19 17:25	1
Calcium	0.0301	I	0.050	0.025	mg/L		07/02/19 09:30	08/26/19 17:25	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/26/19 17:25	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/02/19 09:30	08/26/19 17:25	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/26/19 17:25	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/26/19 17:25	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/26/19 17:25	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/02/19 09:30	08/26/19 17:25	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/02/19 09:30	08/26/19 17:25	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/02/19 09:30	08/27/19 19:21	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/02/19 09:30	08/27/19 19:21	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/27/19 19:21	1
Boron	0.0186		0.010	0.0042	mg/L		07/02/19 09:30	08/27/19 19:21	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/27/19 19:21	1
Calcium	0.0395	I	0.050	0.025	mg/L		07/02/19 09:30	08/27/19 19:21	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/27/19 19:21	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/02/19 09:30	08/27/19 19:21	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/27/19 19:21	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/27/19 19:21	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/27/19 19:21	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/02/19 09:30	08/27/19 19:21	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/02/19 09:30	08/27/19 19:21	1

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000132	I	0.00025	0.000092	mg/L		07/02/19 09:30	08/28/19 18:47	1
Barium	0.000385	I	0.00050	0.000098	mg/L		07/02/19 09:30	08/28/19 18:47	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/28/19 18:47	1
Boron	0.0195		0.010	0.0042	mg/L		07/02/19 09:30	08/28/19 18:47	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/02/19 09:30	08/28/19 18:47	1
Calcium	0.025	U	0.050	0.025	mg/L		07/02/19 09:30	08/28/19 18:47	1
Chromium	0.00022	U	0.00050	0.00022	mg/L		07/02/19 09:30	08/28/19 18:47	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/02/19 09:30	08/28/19 18:47	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/02/19 09:30	08/28/19 18:47	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/02/19 09:30	08/28/19 18:47	1
Molybdenum	0.00040	U	0.0030	0.00040	mg/L		07/02/19 09:30	08/28/19 18:47	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/02/19 09:30	08/28/19 18:47	1

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

Lab Sample ID: MB 400-446508/1-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/02/19 09:30	08/28/19 18:47	1

Lab Sample ID: MB 400-446508/1-A ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000715	I	0.0013	0.00046	mg/L		07/02/19 09:30	07/09/19 21:13	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	07/09/19 21:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 21:13	5
Boron	0.021	U	0.050	0.021	mg/L		07/02/19 09:30	07/09/19 21:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	07/09/19 21:13	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	07/09/19 21:13	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	07/09/19 21:13	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	07/09/19 21:13	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	07/09/19 21:13	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	07/09/19 21:13	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	07/09/19 21:13	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	07/09/19 21:13	5

Lab Sample ID: MB 400-446508/1-A ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/02/19 09:30	08/01/19 23:50	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/02/19 09:30	08/01/19 23:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	08/01/19 23:50	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/02/19 09:30	08/01/19 23:50	5
Calcium	0.13	U	0.25	0.13	mg/L		07/02/19 09:30	08/01/19 23:50	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/02/19 09:30	08/01/19 23:50	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/02/19 09:30	08/01/19 23:50	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/02/19 09:30	08/01/19 23:50	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/02/19 09:30	08/01/19 23:50	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/02/19 09:30	08/01/19 23:50	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/02/19 09:30	08/01/19 23:50	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/02/19 09:30	08/01/19 23:50	5

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0525		mg/L		105	80 - 120
Barium	0.0500	0.0502		mg/L		100	80 - 120
Beryllium	0.0500	0.0560		mg/L		112	80 - 120
Cadmium	0.0500	0.0501		mg/L		100	80 - 120
Chromium	0.0500	0.0538		mg/L		108	80 - 120
Cobalt	0.0500	0.0507		mg/L		101	80 - 120

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

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0500	0.0488		mg/L		98	80 - 120
Lithium	0.0500	0.0547		mg/L		109	80 - 120
Molybdenum	0.0500	0.0465		mg/L		93	80 - 120
Selenium	0.0500	0.0484		mg/L		97	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0514		mg/L		103	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0460		mg/L		92	80 - 120
Boron	0.100	0.120		mg/L		120	80 - 120
Cadmium	0.0500	0.0490		mg/L		98	80 - 120
Calcium	1.00	1.07		mg/L		107	80 - 120
Chromium	0.0500	0.0512		mg/L		102	80 - 120
Cobalt	0.0500	0.0522		mg/L		104	80 - 120
Lead	0.0500	0.0492		mg/L		98	80 - 120
Lithium	0.0500	0.0506		mg/L		101	80 - 120
Molybdenum	0.0500	0.0478		mg/L		96	80 - 120
Selenium	0.0500	0.0568		mg/L		114	80 - 120
Thallium	0.0500	0.0464	L	mg/L		93	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0541		mg/L		108	80 - 120
Barium	0.0500	0.0488		mg/L		98	80 - 120
Beryllium	0.0500	0.0504		mg/L		101	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Calcium	1.00	1.09		mg/L		109	80 - 120
Chromium	0.0500	0.0511		mg/L		102	80 - 120
Cobalt	0.0500	0.0513		mg/L		103	80 - 120
Lead	0.0500	0.0515		mg/L		103	80 - 120
Lithium	0.0500	0.0538		mg/L		108	80 - 120
Molybdenum	0.0500	0.0494		mg/L		99	80 - 120
Selenium	0.0500	0.0513		mg/L		103	80 - 120
Thallium	0.0500	0.0531	L	mg/L		106	80 - 120

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0537		mg/L		107	80 - 120

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

Lab Sample ID: LCS 400-446508/2-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.0500	0.0485		mg/L		97	80 - 120
Beryllium	0.0500	0.0504		mg/L		101	80 - 120
Boron	0.100	0.110		mg/L		109	80 - 120
Cadmium	0.0500	0.0484		mg/L		97	80 - 120
Calcium	1.00	1.06		mg/L		106	80 - 120
Chromium	0.0500	0.0492		mg/L		98	80 - 120
Cobalt	0.0500	0.0492		mg/L		98	80 - 120
Lead	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0493		mg/L		99	80 - 120
Molybdenum	0.0500	0.0459		mg/L		92	80 - 120
Selenium	0.0500	0.0440		mg/L		88	80 - 120
Thallium	0.0500	0.0482	L	mg/L		96	80 - 120

Lab Sample ID: LCS 400-446508/2-A ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0504		mg/L		101	80 - 120
Beryllium	0.0500	0.0497		mg/L		99	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	1.00	0.930		mg/L		93	80 - 120
Chromium	0.0500	0.0510		mg/L		102	80 - 120
Cobalt	0.0500	0.0512		mg/L		102	80 - 120
Lead	0.0500	0.0495		mg/L		99	80 - 120
Lithium	0.0500	0.0479		mg/L		96	80 - 120
Molybdenum	0.0500	0.0484		mg/L		97	80 - 120
Selenium	0.0500	0.0522		mg/L		104	80 - 120
Thallium	0.0500	0.0475		mg/L		95	80 - 120

Lab Sample ID: LCS 400-446508/2-A ^5
Matrix: Water
Analysis Batch: 451120

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0522		mg/L		104	80 - 120
Barium	0.0500	0.0482		mg/L		96	80 - 120
Beryllium	0.0500	0.0534		mg/L		107	80 - 120
Cadmium	0.0500	0.0482		mg/L		96	80 - 120
Calcium	1.00	1.05		mg/L		105	80 - 120
Chromium	0.0500	0.0506		mg/L		101	80 - 120
Cobalt	0.0500	0.0515		mg/L		103	80 - 120
Lead	0.0500	0.0498		mg/L		100	80 - 120
Lithium	0.0500	0.0464		mg/L		93	80 - 120
Molybdenum	0.0500	0.0476		mg/L		95	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Thallium	0.0500	0.0482		mg/L		96	80 - 120

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

Lab Sample ID: 400-170870-B-8-B MS ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0054	V	0.0500	0.0527		mg/L		95	75 - 125
Barium	0.051		0.0500	0.105		mg/L		109	75 - 125
Beryllium	0.00034	U	0.0500	0.0504		mg/L		101	75 - 125
Cadmium	0.00034	U	0.0500	0.0480		mg/L		96	75 - 125
Chromium	0.0011	U	0.0500	0.0447		mg/L		89	75 - 125
Cobalt	0.00040	U	0.0500	0.0408		mg/L		82	75 - 125
Lithium	0.0026	I	0.0500	0.0545		mg/L		104	75 - 125
Molybdenum	0.017		0.0500	0.0649		mg/L		95	75 - 125
Selenium	0.0017		0.0500	0.00888	J3	mg/L		14	75 - 125

Lab Sample ID: 400-170870-B-8-B MS ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0055		0.0500	0.0548		mg/L		99	75 - 125
Barium	0.051		0.0500	0.104		mg/L		106	75 - 125
Beryllium	0.00034	U	0.0500	0.0526		mg/L		105	75 - 125
Cadmium	0.00034	U	0.0500	0.0465		mg/L		93	75 - 125
Chromium	0.0011	U	0.0500	0.0475		mg/L		95	75 - 125
Cobalt	0.00040	U	0.0500	0.0456		mg/L		91	75 - 125
Lead	0.00035	U	0.0500	0.0519		mg/L		104	75 - 125
Lithium	0.0026	I	0.0500	0.0477		mg/L		90	75 - 125
Molybdenum	0.015		0.0500	0.0612		mg/L		93	75 - 125
Selenium	0.00071	U	0.0500	0.00944	J3	mg/L		19	75 - 125
Thallium	0.00048	I	0.0500	0.0498		mg/L		99	75 - 125

Lab Sample ID: 400-170870-B-8-C MSD ^5
Matrix: Water
Analysis Batch: 447436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0054	V	0.0500	0.0544		mg/L		98	75 - 125	3	20
Barium	0.051		0.0500	0.107		mg/L		113	75 - 125	2	20
Beryllium	0.00034	U	0.0500	0.0524		mg/L		105	75 - 125	4	20
Cadmium	0.00034	U	0.0500	0.0498		mg/L		100	75 - 125	4	20
Chromium	0.0011	U	0.0500	0.0461		mg/L		92	75 - 125	3	20
Cobalt	0.00040	U	0.0500	0.0416		mg/L		83	75 - 125	2	20
Lithium	0.0026	I	0.0500	0.0557		mg/L		106	75 - 125	2	20
Molybdenum	0.017		0.0500	0.0664		mg/L		98	75 - 125	2	20
Selenium	0.0017		0.0500	0.00701	J3	mg/L		11	75 - 125	24	20

Lab Sample ID: 400-170870-B-8-C MSD ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0055		0.0500	0.0529		mg/L		95	75 - 125	4	20
Barium	0.051		0.0500	0.0995		mg/L		97	75 - 125	4	20

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

Lab Sample ID: 400-170870-B-8-C MSD ^5
Matrix: Water
Analysis Batch: 450551

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00034	U	0.0500	0.0537		mg/L		107	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0440		mg/L		88	75 - 125	5	20
Chromium	0.0011	U	0.0500	0.0456		mg/L		91	75 - 125	4	20
Cobalt	0.00040	U	0.0500	0.0438		mg/L		88	75 - 125	4	20
Lead	0.00035	U	0.0500	0.0519		mg/L		104	75 - 125	0	20
Lithium	0.0026	I	0.0500	0.0482		mg/L		91	75 - 125	1	20
Molybdenum	0.015		0.0500	0.0593		mg/L		89	75 - 125	3	20
Selenium	0.00071	U	0.0500	0.00784	J3	mg/L		16	75 - 125	19	20
Thallium	0.00048	I	0.0500	0.0506		mg/L		100	75 - 125	2	20

Lab Sample ID: MB 400-446685/1-A ^5
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 15:31	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 15:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:31	5
Boron	0.021	U	0.050	0.021	mg/L		07/03/19 10:17	07/05/19 15:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:31	5
Calcium	0.13	U	0.25	0.13	mg/L		07/03/19 10:17	07/05/19 15:31	5
Chromium	0.0011	U	0.0025	0.0011	mg/L		07/03/19 10:17	07/05/19 15:31	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 15:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 15:31	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 15:31	5
Molybdenum	0.0020	U	0.015	0.0020	mg/L		07/03/19 10:17	07/05/19 15:31	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 15:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 15:31	5

Lab Sample ID: LCS 400-446685/2-A
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0532		mg/L		106	80 - 120
Barium	0.0500	0.0525		mg/L		105	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Boron	0.100	0.0956		mg/L		96	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Calcium	1.00	1.08		mg/L		108	80 - 120
Chromium	0.0500	0.0548		mg/L		110	80 - 120
Cobalt	0.0500	0.0553		mg/L		111	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0512		mg/L		102	80 - 120
Molybdenum	0.0500	0.0491		mg/L		98	80 - 120
Selenium	0.0500	0.0523		mg/L		105	80 - 120
Thallium	0.0500	0.0520		mg/L		104	80 - 120

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

Lab Sample ID: 400-170945-7 MS
Matrix: Water
Analysis Batch: 446993

Client Sample ID: DUP-01
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00046	U	0.0500	0.0517		mg/L		103	75 - 125
Barium	0.014		0.0500	0.0654		mg/L		103	75 - 125
Beryllium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125
Boron	0.021	U	0.100	0.0970		mg/L		97	75 - 125
Cadmium	0.00034	U	0.0500	0.0538		mg/L		108	75 - 125
Calcium	0.57		1.00	1.58		mg/L		101	75 - 125
Chromium	0.0011	U	0.0500	0.0511		mg/L		102	75 - 125
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125
Lead	0.00035	U	0.0500	0.0443		mg/L		89	75 - 125
Lithium	0.0013	I	0.0500	0.0521		mg/L		101	75 - 125
Molybdenum	0.0020	U	0.0500	0.0485		mg/L		97	75 - 125
Selenium	0.0016		0.0500	0.0525		mg/L		102	75 - 125
Thallium	0.00014	I	0.0500	0.0433		mg/L		86	75 - 125

Lab Sample ID: 400-170945-7 MSD
Matrix: Water
Analysis Batch: 446993

Client Sample ID: DUP-01
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00046	U	0.0500	0.0521		mg/L		104	75 - 125	1	20
Barium	0.014		0.0500	0.0649		mg/L		102	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0494		mg/L		99	75 - 125	4	20
Boron	0.021	U	0.100	0.0874		mg/L		87	75 - 125	10	20
Cadmium	0.00034	U	0.0500	0.0540		mg/L		108	75 - 125	0	20
Calcium	0.57		1.00	1.57		mg/L		100	75 - 125	0	20
Chromium	0.0011	U	0.0500	0.0506		mg/L		101	75 - 125	1	20
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0440		mg/L		88	75 - 125	1	20
Lithium	0.0013	I	0.0500	0.0506		mg/L		99	75 - 125	3	20
Molybdenum	0.0020	U	0.0500	0.0472		mg/L		94	75 - 125	3	20
Selenium	0.0016		0.0500	0.0524		mg/L		102	75 - 125	0	20
Thallium	0.00014	I	0.0500	0.0425		mg/L		85	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-444687/14-A
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 444687

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 09:47	06/18/19 13:23	1

Lab Sample ID: LCS 400-444687/15-A
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 444687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000998		mg/L		99	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 400-171342-D-1-B MS
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 444687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00196		mg/L		97	80 - 120

Lab Sample ID: 400-171342-D-1-C MSD
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 444687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00191		mg/L		95	80 - 120	3	20

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

Lab Sample ID: MB 400-443030/1
Matrix: Water
Analysis Batch: 443030

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/03/19 13:13	1

Lab Sample ID: LCS 400-443030/2
Matrix: Water
Analysis Batch: 443030

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	314		mg/L		107	78 - 122

Lab Sample ID: 400-170943-A-2 DU
Matrix: Water
Analysis Batch: 443030

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	300		310		mg/L		2	5

Lab Sample ID: MB 400-443147/1
Matrix: Water
Analysis Batch: 443147

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/04/19 10:21	1

Lab Sample ID: LCS 400-443147/2
Matrix: Water
Analysis Batch: 443147

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	306		mg/L		104	78 - 122

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

Lab Sample ID: 400-171002-A-2 DU
Matrix: Water
Analysis Batch: 443147

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	54		52.0		mg/L		4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444723/6
Matrix: Water
Analysis Batch: 444723

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/17/19 11:12	1

Lab Sample ID: LCS 400-444723/7
Matrix: Water
Analysis Batch: 444723

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.9		mg/L		103	90 - 110

Lab Sample ID: MRL 400-444723/3
Matrix: Water
Analysis Batch: 444723

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.66	I	mg/L		83	50 - 150

Lab Sample ID: 400-170945-4 MS
Matrix: Water
Analysis Batch: 444723

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.5		10.0	15.8		mg/L		113	73 - 120

Lab Sample ID: 400-170945-4 MSD
Matrix: Water
Analysis Batch: 444723

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.5		10.0	15.4		mg/L		109	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-443181/3
Matrix: Water
Analysis Batch: 443181

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/04/19 11:57	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-443181/4
Matrix: Water
Analysis Batch: 443181

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 400-170869-A-4 MS
Matrix: Water
Analysis Batch: 443181

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.040	I	1.00	0.530	J3	mg/L		49	75 - 125		

Lab Sample ID: 400-170869-A-4 MSD
Matrix: Water
Analysis Batch: 443181

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	I	1.00	0.540	J3	mg/L		50	75 - 125	2	4

Lab Sample ID: 400-170945-1 DU
Matrix: Water
Analysis Batch: 443181

Client Sample ID: MW-100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.032	U	0.032	U	mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444698/6
Matrix: Water
Analysis Batch: 444698

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/17/19 09:54	1

Lab Sample ID: LCS 400-444698/7
Matrix: Water
Analysis Batch: 444698

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.5		mg/L		103	90 - 110		

Lab Sample ID: MRL 400-444698/3
Matrix: Water
Analysis Batch: 444698

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.54	I	mg/L		91	50 - 150		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-170945-4 MS
Matrix: Water
Analysis Batch: 444698

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	3.3	I	10.0	12.8		mg/L		95	77 - 128		

Lab Sample ID: 400-170945-4 MSD
Matrix: Water
Analysis Batch: 444698

Client Sample ID: MW-108
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	3.3	I	10.0	12.9		mg/L		95	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans / Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: Richard.Markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Upgradient	SSOW#:			

Analysis Requested

400-170945 COC

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-100	5/31/19	1131	G	Water			X	X	X	X		
MW-101		1050		Water								
MW-107		1013		Water								
MW-108		0834		Water								
MW-306		0845		Water								
MW-307		0950		Water								
Dup-01	5/31/19	0745	G	water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/31/19 1500	RDH	Kathy R Avery	5-31-19 1500	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3, 3.9, 2.7°C IR7

8/30/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170945-1
SDG Number: Upgradient

Login Number: 170945
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3°C, 3.9°C, 2.7°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-1
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-19
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-19
Oklahoma	State Program	9810	08-31-19
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-19 *
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	07-31-19 *

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-170945-2
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
7/29/2019 6:19:07 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-170945-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-170945-2

RAD

Method(s) 9315: Ra-228 Prep Batch 160-431725. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-170945-1), MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4), MW-306 (400-170945-5), MW-307 (400-170945-6), DUP-01 (400-170945-7), (LCS 160-431725/1-A), (LCSD 160-431725/2-A) and (MB 160-431725/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431732. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-170945-1), MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4), MW-306 (400-170945-5), MW-307 (400-170945-6), DUP-01 (400-170945-7), (LCS 160-431732/1-A), (LCSD 160-431732/2-A) and (MB 160-431732/23-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431732: Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-100 (400-170945-1), MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4), MW-306 (400-170945-5), MW-307 (400-170945-6) and DUP-01 (400-170945-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431725: Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-100 (400-170945-1), MW-101 (400-170945-2), MW-107 (400-170945-3), MW-108 (400-170945-4), MW-306 (400-170945-5), MW-307 (400-170945-6) and DUP-01 (400-170945-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-170945-1	MW-100	Water	05/31/19 11:31	05/31/19 15:00	
400-170945-2	MW-101	Water	05/31/19 10:50	05/31/19 15:00	
400-170945-3	MW-107	Water	05/31/19 10:13	05/31/19 15:00	
400-170945-4	MW-108	Water	05/31/19 08:34	05/31/19 15:00	
400-170945-5	MW-306	Water	05/31/19 08:45	05/31/19 15:00	
400-170945-6	MW-307	Water	05/31/19 09:50	05/31/19 15:00	
400-170945-7	DUP-01	Water	05/31/19 07:45	05/31/19 15:00	

Client Sample ID: MW-100

Date Collected: 05/31/19 11:31
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.354		0.105	0.110	1.00	0.0963	pCi/L	06/14/19 08:47	07/26/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.6*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.973		0.285	0.299	1.00	0.367	pCi/L	06/14/19 09:44	07/09/19 09:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.6*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:01*	*1*
Y Carrier	*87.9*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.304	0.319	5.00	0.367	pCi/L		07/29/19 07:56	1

Client Sample ID: MW-101

Date Collected: 05/31/19 10:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.248		0.0921	0.0948	1.00	0.0982	pCi/L	06/14/19 08:47	07/26/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.742		0.257	0.266	1.00	0.344	pCi/L	06/14/19 09:44	07/09/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:02*	*1*
Y Carrier	*87.5*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.990		0.273	0.282	5.00	0.344	pCi/L		07/29/19 07:56	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Client Sample ID: MW-107

Date Collected: 05/31/19 10:13
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.292		0.0928	0.0965	1.00	0.0804	pCi/L	06/14/19 08:47	07/26/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.952		0.256	0.271	1.00	0.304	pCi/L	06/14/19 09:44	07/09/19 09:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:02*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.24		0.272	0.288	5.00	0.304	pCi/L		07/29/19 07:56	1

Client Sample ID: MW-108

Date Collected: 05/31/19 08:34
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.336		0.100	0.104	1.00	0.0835	pCi/L	06/14/19 08:47	07/26/19 09:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:04*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.47		0.381	0.404	1.00	0.499	pCi/L	06/14/19 09:44	07/09/19 09:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:04*	*1*
Y Carrier	*85.6*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:04*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.80		0.394	0.417	5.00	0.499	pCi/L		07/29/19 07:56	1

Client Sample ID: MW-306

Date Collected: 05/31/19 08:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.172		0.0751	0.0767	1.00	0.0834	pCi/L	06/14/19 08:47	07/26/19 09:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:04*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.587		0.267	0.272	1.00	0.391	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*88.2*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.759		0.277	0.283	5.00	0.391	pCi/L		07/29/19 07:56	1

Client Sample ID: MW-307

Date Collected: 05/31/19 09:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.147		0.0840	0.0851	1.00	0.108	pCi/L	06/14/19 08:47	07/26/19 09:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:04*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.737		0.290	0.298	1.00	0.411	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*89.0*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.884		0.302	0.310	5.00	0.411	pCi/L		07/29/19 07:56	1

Client Sample ID: DUP-01

Date Collected: 05/31/19 07:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.0912	0.0933	1.00	0.0967	pCi/L	06/14/19 08:47	07/26/19 09:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*06/14/19 08:47*	*07/26/19 09:04*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.482		0.271	0.274	1.00	0.410	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*88.2*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.703		0.286	0.289	5.00	0.410	pCi/L		07/29/19 07:56	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Client Sample ID: MW-100
Date Collected: 05/31/19 11:31
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 09:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434301	07/09/19 09:01	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: MW-101
Date Collected: 05/31/19 10:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 09:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434301	07/09/19 09:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: MW-107
Date Collected: 05/31/19 10:13
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 09:02	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434301	07/09/19 09:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: MW-108
Date Collected: 05/31/19 08:34
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 09:04	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434306	07/09/19 09:04	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Client Sample ID: MW-306
Date Collected: 05/31/19 08:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 09:04	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434306	07/09/19 09:05	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: MW-307
Date Collected: 05/31/19 09:50
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 09:04	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434306	07/09/19 09:05	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: DUP-01
Date Collected: 05/31/19 07:45
Date Received: 05/31/19 15:00

Lab Sample ID: 400-170945-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 09:04	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434306	07/09/19 09:05	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 431725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	PrecSep-21	
400-170945-2	MW-101	Total/NA	Water	PrecSep-21	
400-170945-3	MW-107	Total/NA	Water	PrecSep-21	
400-170945-4	MW-108	Total/NA	Water	PrecSep-21	
400-170945-5	MW-306	Total/NA	Water	PrecSep-21	
400-170945-6	MW-307	Total/NA	Water	PrecSep-21	
400-170945-7	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-431725/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431725/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-431725/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 431732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-170945-1	MW-100	Total/NA	Water	PrecSep_0	
400-170945-2	MW-101	Total/NA	Water	PrecSep_0	
400-170945-3	MW-107	Total/NA	Water	PrecSep_0	
400-170945-4	MW-108	Total/NA	Water	PrecSep_0	
400-170945-5	MW-306	Total/NA	Water	PrecSep_0	
400-170945-6	MW-307	Total/NA	Water	PrecSep_0	
400-170945-7	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-431732/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431732/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-431732/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431725/23-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431725

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02997	U	0.0394	0.0395	1.00	0.0970	pCi/L	06/14/19 08:47	07/26/19 16:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*06/14/19 08:47*	*07/26/19 16:02*	*1*

Lab Sample ID: LCS 160-431725/1-A
Matrix: Water
Analysis Batch: 436343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431725

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.718		0.912	1.00	0.0714	pCi/L	77	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*

Lab Sample ID: LCSD 160-431725/2-A
Matrix: Water
Analysis Batch: 436343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431725

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.129		0.948	1.00	0.0940	pCi/L	80	75 - 125	0.22	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431732/23-A
Matrix: Water
Analysis Batch: 434306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431732

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2411	U	0.200	0.202	1.00	0.318	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*95.0*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-431732/1-A
Matrix: Water
Analysis Batch: 434300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431732

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.04	8.986		1.04	1.00	0.335	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*
Y Carrier	*87.5*		*40 - 110*

Lab Sample ID: LCSD 160-431732/2-A
Matrix: Water
Analysis Batch: 434300

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431732

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.04	8.507		0.987	1.00	0.339	pCi/L	94	75 - 125	0.24	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans / Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page:
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: Richard.Markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Upgradient	SSOW#:			

Analysis Requested

400-170945 COC

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-100	5/31/19	1131	G	Water			X	X	X	X		
MW-101		1050		Water								
MW-107		1013		Water								
MW-108		0834		Water								
MW-306		0845		Water								
MW-307		0950		Water								
Dup-01	5/31/19	0745	G	water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/31/19 1500	RDH	Kathy R Avery	5-31-19 1500	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.3, 3.9, 2.7°C IR7

7/29/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170945-2
SDG Number: Upgradient

Login Number: 170945
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3°C, 3.9°C, 2.7°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-170945-2
SDG Number: Upgradient

Login Number: 170945
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/04/19 04:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19 *
Florida	NELAP	4	E81010	06-30-20 *
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19 *
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-170945-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2305	04-06-22
ANAB	DoD		L2305	04-06-22
ANAB	DOE		L2305.01	04-06-22
Arizona	State		AZ0813	12-08-19
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-20
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-20
Florida	NELAP		E87689	06-30-20
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-20
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-20
Missouri	State Program	7	780	06-30-20
Nevada	State Program	9	MO000542018-1	07-31-19 *
New Jersey	NELAP	2	MO002	06-30-20
New York	NELAP	2	11616	03-31-20
New York	NELAP		11616	04-01-20
North Dakota	State Program	8	R207	06-30-19 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State		9997	08-31-19
Oklahoma	State Program	6	9997	08-31-19 *
Pennsylvania	NELAP	3	68-00540	02-28-20
Pennsylvania	NELAP		68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-19 *
Texas	NELAP	6	T104704193-18-13	07-31-19 *
Texas	NELAP		T104704193-19-13	07-31-20
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19 *
Virginia	NELAP	3	460230	06-14-20
Virginia	NELAP		10310	06-14-20
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-171046-1
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/21/2019 6:05:50 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

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

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Job ID: 400-171046-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-171046-1

Metals
Method(s) 6020: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-171046-1), MW-201 (400-171046-2), MW-204 (400-171046-5), MW-206 (400-171046-7) and DUP-03 (400-171046-8). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The initial calibration verification (ICV) result for batch 447857 was outside the upper control limit (112%, Limit 110%). The continuing calibration verification (CCV) bracketing the associated sample was within acceptance limit; therefore, the data have been reported.

General Chemistry
Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171046-B-8 MS) and (400-171046-B-8 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444889 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-171046-1), MW-201 (400-171046-2), MW-204 (400-171046-5), MW-206 (400-171046-7), DUP-03 (400-171046-8), (400-171046-B-8 MS) and (400-171046-B-8 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171049-B-6 MS) and (400-171049-B-6 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444804 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-171046-1), MW-201 (400-171046-2), MW-203 (400-171046-4), MW-204 (400-171046-5), MW-205 (400-171046-6), MW-206 (400-171046-7), DUP-03 (400-171046-8), (400-171049-B-6), (400-171049-B-6 MS) and (400-171049-B-6 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-200 — Lab Sample ID: 400-171046-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00048	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	11		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	170		2.5	1.3	mg/L	50		6020	Total Recoverable
Cobalt	0.0013	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00079	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0012	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0044		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Mercury	0.00061		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1200		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	310		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Sulfate	100		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	5.27				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-171046-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.040		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	5.2		0.50	0.21	mg/L	50		6020	Total Recoverable
Cadmium	0.0017	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	54		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00065	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0044	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0020		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00011	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	400		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	98		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.090	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	100		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.85				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-171046-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.23		0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-171046-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	5.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00061	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	80		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	14		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.80				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-171046-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.036		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.65		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	31		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0016	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Selenium	0.0015		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Mercury	0.000095	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	170		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	16		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	90		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.70				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-171046-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0029		0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.029		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Beryllium	0.00045	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Boron	7.1		0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	66		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.012		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0016		0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0018	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0037		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00021	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	660		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	80		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-171046-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	310		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.31				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-171046-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00055	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.025		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.98		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	25		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0015	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	190		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	19		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	97		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.96				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-171046-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010	I	0.0013	0.00046	mg/L	5		6020	Total Recoverable
Barium	0.048		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	19		1.0	0.42	mg/L	100		6020	Total Recoverable
Cadmium	0.00035	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	350		2.5	1.3	mg/L	50		6020	Total Recoverable
Calcium	410		5.0	2.5	mg/L	100		6020	Total Recoverable
Cobalt	0.0018	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.0011	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Selenium	0.015		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00017	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	2300		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	690		40	28	mg/L	20		SM 4500 Cl- E	Total/NA
Fluoride	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	280		100	28	mg/L	20		SM 4500 SO4 E	Total/NA
Field pH	4.69				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 400-171046-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-03 (Continued) — Lab Sample ID: 400-171046-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	4.1		0.50	0.21	mg/L	50		6020	Total Recoverable
Cadmium	0.0018	I	0.0025	0.00034	mg/L	5		6020	Total Recoverable
Calcium	56		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0014	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00036	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0044	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0017		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00012	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.0012		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	420		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	100		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.50		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	110		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-03 — Lab Sample ID: 400-171046-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.34		0.050	0.021	mg/L	5		6020	Total Recoverable

Client Sample ID: FB-03 — Lab Sample ID: 400-171046-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.19		0.050	0.021	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-171046-1	MW-200	Water	06/04/19 07:40	06/04/19 13:25	
400-171046-2	MW-201	Water	06/04/19 09:14	06/04/19 13:25	
400-171046-3	MW-202	Water	06/04/19 11:47	06/04/19 13:25	
400-171046-4	MW-203	Water	06/04/19 08:35	06/04/19 13:25	
400-171046-5	MW-204	Water	06/04/19 09:40	06/04/19 13:25	
400-171046-6	MW-205	Water	06/04/19 11:10	06/04/19 13:25	
400-171046-7	MW-206	Water	06/04/19 06:28	06/04/19 13:25	
400-171046-8	DUP-03	Water	06/04/19 08:14	06/04/19 13:25	
400-171046-9	EB-03	Water	06/04/19 09:00	06/04/19 13:25	
400-171046-10	FB-03	Water	06/04/19 08:20	06/04/19 13:25	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-200

Date Collected: 06/04/19 07:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00048	I	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 15:59	5
Barium	0.040		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 15:59	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:59	5
Boron	11		0.50	0.21	mg/L		07/03/19 10:17	07/09/19 03:53	50
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:59	5
Calcium	170		2.5	1.3	mg/L		07/03/19 10:17	07/09/19 03:53	50
Cobalt	0.0013	I	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 15:59	5
Lead	0.00079	I	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 15:59	5
Lithium	0.0012	I	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 15:59	5
Selenium	0.0044		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 15:59	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 15:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00061		0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:10	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10	6.8	mg/L			06/06/19 10:19	1
Chloride	310		20	14	mg/L			06/18/19 14:09	10
Fluoride	0.032	U	0.10	0.032	mg/L			06/06/19 12:23	1
Sulfate	100		25	7.0	mg/L			06/18/19 08:54	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.27				SU			06/04/19 07:40	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-201

Date Collected: 06/04/19 09:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:03	5
Barium	**0.040**		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:03	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:03	5
Boron	**5.2**		0.50	0.21	mg/L		07/03/19 10:17	07/09/19 03:57	50
Cadmium	**0.0017**	**I**	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:03	5
Calcium	**54**		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:03	5
Cobalt	**0.0014**	**I**	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:03	5
Lead	**0.00065**	**I**	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:03	5
Lithium	**0.0044**	**I**	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:03	5
Selenium	**0.0020**		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:03	5
Thallium	**0.00011**	**I**	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:03	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**400**		5.0	3.4	mg/L			06/06/19 10:19	1
Chloride	**98**		10	7.0	mg/L			06/18/19 14:09	5
Fluoride	**0.090**	**I**	0.10	0.032	mg/L			06/06/19 12:25	1
Sulfate	**100**		25	7.0	mg/L			06/18/19 08:54	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.85**				SU			06/04/19 09:14	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-202

Date Collected: 06/04/19 11:47
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:07	5
Barium	**0.025**		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:07	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:07	5
Boron	**0.23**		0.050	0.021	mg/L		07/03/19 10:17	07/05/19 16:07	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:07	5
Calcium	**5.2**		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:07	5
Cobalt	**0.00061**	**I**	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:07	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:07	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:07	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:07	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:07	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**80**		5.0	3.4	mg/L			06/06/19 10:19	1
Chloride	**14**		2.0	1.4	mg/L			06/18/19 13:26	1
Fluoride	**0.040**	**I**	0.10	0.032	mg/L			06/12/19 12:36	1
Sulfate	**11**		5.0	1.4	mg/L			06/18/19 08:33	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.80**				SU			06/04/19 11:47	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-203

Date Collected: 06/04/19 08:35
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:31	5
Barium	**0.036**		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:31	5
Boron	**0.65**		0.050	0.021	mg/L		07/03/19 10:17	07/05/19 16:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:31	5
Calcium	**31**		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:31	5
Cobalt	**0.0016**	**I**	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:31	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:31	5
Selenium	**0.0015**		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:31	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000095**	**I**	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:22	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**170**		5.0	3.4	mg/L			06/06/19 10:19	1
Chloride	**16**		2.0	1.4	mg/L			06/18/19 13:26	1
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			06/12/19 12:45	1
Sulfate	**90**		25	7.0	mg/L			06/18/19 08:54	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.70**				SU			06/04/19 08:35	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-204

Date Collected: 06/04/19 09:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0029		0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:35	5
Barium	0.029		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:35	5
Beryllium	0.00045	I	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:35	5
Boron	7.1		0.50	0.21	mg/L		07/03/19 10:17	07/09/19 04:01	50
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/09/19 03:41	5
Calcium	66		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:35	5
Cobalt	0.012		0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:35	5
Lead	0.0016		0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:35	5
Lithium	0.0018	I	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:35	5
Selenium	0.0037		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:35	5
Thallium	0.00021	I	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:35	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	660		5.0	3.4	mg/L			06/06/19 10:19	1
Chloride	80		10	7.0	mg/L			06/18/19 14:09	5
Fluoride	0.23		0.10	0.032	mg/L			06/12/19 12:49	1
Sulfate	310		100	28	mg/L			06/18/19 08:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.31				SU			06/04/19 09:40	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-205

Date Collected: 06/04/19 11:10
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00055	I	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:39	5
Barium	0.025		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:39	5
Boron	0.98		0.050	0.021	mg/L		07/03/19 10:17	07/05/19 16:39	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:39	5
Calcium	25		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:39	5
Cobalt	0.0015	I	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:39	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:39	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:39	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:39	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:40	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	190		5.0	3.4	mg/L			06/06/19 10:19	1
Chloride	19		2.0	1.4	mg/L			06/18/19 13:26	1
Fluoride	0.050	I	0.10	0.032	mg/L			06/12/19 12:52	1
Sulfate	97		25	7.0	mg/L			06/18/19 08:58	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.96				SU			06/04/19 11:10	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-206

Date Collected: 06/04/19 06:28
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0010	I	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:43	5
Barium	0.048		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:43	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:43	5
Boron	19		1.0	0.42	mg/L		07/03/19 10:17	07/13/19 03:35	100
Cadmium	0.00035	I	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:43	5
Calcium	350		2.5	1.3	mg/L		07/03/19 10:17	07/09/19 04:05	50
Calcium	410		5.0	2.5	mg/L		07/03/19 10:17	07/13/19 03:35	100
Cobalt	0.0018	I	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:43	5
Lead	0.0011	I	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:43	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:43	5
Selenium	0.015		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:43	5
Thallium	0.00017	I	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:43	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:41	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2300		25	17	mg/L			06/06/19 10:19	1
Chloride	690		40	28	mg/L			06/18/19 14:17	20
Fluoride	0.080	I	0.10	0.032	mg/L			06/12/19 12:56	1
Sulfate	280		100	28	mg/L			06/18/19 08:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.69				SU			06/04/19 06:28	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: DUP-03
Date Collected: 06/04/19 08:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-8
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:47	5
Barium	**0.041**		0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:47	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:47	5
Boron	**4.1**		0.50	0.21	mg/L		07/03/19 10:17	07/09/19 04:09	50
Cadmium	**0.0018**	**I**	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:47	5
Calcium	**56**		0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:47	5
Cobalt	**0.0014**	**I**	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:47	5
Lead	**0.00036**	**I**	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:47	5
Lithium	**0.0044**	**I**	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:47	5
Selenium	**0.0017**		0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:47	5
Thallium	**0.00012**	**I**	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:47	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0012**		0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:43	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		5.0	3.4	mg/L			06/06/19 14:07	1
Chloride	**100**		10	7.0	mg/L			06/18/19 14:09	5
Fluoride	**0.50**		0.10	0.032	mg/L			06/12/19 13:00	1
Sulfate	**110**		25	7.0	mg/L			06/18/19 08:58	5

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: EB-03

Date Collected: 06/04/19 09:00
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:51	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:51	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:51	5
Boron	**0.34**		0.050	0.021	mg/L		07/03/19 10:17	07/05/19 16:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:51	5
Calcium	0.13	U	0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:51	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:51	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:51	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:51	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:45	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/06/19 14:07	1
Chloride	1.4	U	2.0	1.4	mg/L			06/18/19 13:32	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/12/19 13:03	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 08:33	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: FB-03

Date Collected: 06/04/19 08:20
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 16:55	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 16:55	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:55	5
Boron	**0.19**		0.050	0.021	mg/L		07/03/19 10:17	07/05/19 16:55	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 16:55	5
Calcium	0.13	U	0.25	0.13	mg/L		07/03/19 10:17	07/05/19 16:55	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 16:55	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 16:55	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 16:55	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 16:55	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 16:55	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:43	06/18/19 12:47	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/06/19 14:07	1
Chloride	1.4	U	2.0	1.4	mg/L			06/18/19 13:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/12/19 13:06	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 10:04	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-200
Date Collected: 06/04/19 07:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 15:59	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		50	447213	07/09/19 03:53	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:10	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	444889	06/18/19 14:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443503	06/06/19 12:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444804	06/18/19 08:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 07:40	MCS	TAL PEN

Client Sample ID: MW-201
Date Collected: 06/04/19 09:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:03	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		50	447213	07/09/19 03:57	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	444889	06/18/19 14:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	443503	06/06/19 12:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444804	06/18/19 08:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 09:14	MCS	TAL PEN

Client Sample ID: MW-202
Date Collected: 06/04/19 11:47
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:07	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:20	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 12:36	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444804	06/18/19 08:33	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 11:47	MCS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-203
Date Collected: 06/04/19 08:35
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:31	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:22	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 12:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444804	06/18/19 08:54	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 08:35	MCS	TAL PEN

Client Sample ID: MW-204
Date Collected: 06/04/19 09:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:35	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447213	07/09/19 03:41	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		50	447213	07/09/19 04:01	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	444889	06/18/19 14:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 12:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	444804	06/18/19 08:58	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 09:40	MCS	TAL PEN

Client Sample ID: MW-205
Date Collected: 06/04/19 11:10
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:39	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:40	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 12:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444804	06/18/19 08:58	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 11:10	MCS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: MW-206
Date Collected: 06/04/19 06:28
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:43	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		50	447213	07/09/19 04:05	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		100	447857	07/13/19 03:35	AW	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:41	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443462	06/06/19 10:19	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		20	444889	06/18/19 14:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 12:56	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	444804	06/18/19 08:58	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	445517	06/04/19 06:28	MCS	TAL PEN

Client Sample ID: DUP-03
Date Collected: 06/04/19 08:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:47	AC	TAL PEN
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		50	447213	07/09/19 04:09	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:43	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443518	06/06/19 14:07	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	444889	06/18/19 14:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 13:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	444804	06/18/19 08:58	RRC	TAL PEN

Client Sample ID: EB-03
Date Collected: 06/04/19 09:00
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:51	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:45	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443518	06/06/19 14:07	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:32	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 13:03	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444804	06/18/19 08:33	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Client Sample ID: FB-03

Date Collected: 06/04/19 08:20
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			446685	07/03/19 10:17	AW	TAL PEN
Total Recoverable	Analysis	6020		5	446993	07/05/19 16:55	AC	TAL PEN
Total/NA	Prep	7470A			444697	06/17/19 10:43	JAP	TAL PEN
Total/NA	Analysis	7470A		1	444887	06/18/19 12:47	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	443518	06/06/19 14:07	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 13:06	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:04	RRC	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 444697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	7470A	
400-171046-2	MW-201	Total/NA	Water	7470A	
400-171046-3	MW-202	Total/NA	Water	7470A	
400-171046-4	MW-203	Total/NA	Water	7470A	
400-171046-5	MW-204	Total/NA	Water	7470A	
400-171046-6	MW-205	Total/NA	Water	7470A	
400-171046-7	MW-206	Total/NA	Water	7470A	
400-171046-8	DUP-03	Total/NA	Water	7470A	
400-171046-9	EB-03	Total/NA	Water	7470A	
400-171046-10	FB-03	Total/NA	Water	7470A	
MB 400-444697/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-444697/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-171046-1 MS	MW-200	Total/NA	Water	7470A	
400-171046-1 MSD	MW-200	Total/NA	Water	7470A	

Analysis Batch: 444887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	7470A	444697
400-171046-2	MW-201	Total/NA	Water	7470A	444697
400-171046-3	MW-202	Total/NA	Water	7470A	444697
400-171046-4	MW-203	Total/NA	Water	7470A	444697
400-171046-5	MW-204	Total/NA	Water	7470A	444697
400-171046-6	MW-205	Total/NA	Water	7470A	444697
400-171046-7	MW-206	Total/NA	Water	7470A	444697
400-171046-8	DUP-03	Total/NA	Water	7470A	444697
400-171046-9	EB-03	Total/NA	Water	7470A	444697
400-171046-10	FB-03	Total/NA	Water	7470A	444697
MB 400-444697/14-A	Method Blank	Total/NA	Water	7470A	444697
LCS 400-444697/15-A	Lab Control Sample	Total/NA	Water	7470A	444697
400-171046-1 MS	MW-200	Total/NA	Water	7470A	444697
400-171046-1 MSD	MW-200	Total/NA	Water	7470A	444697

Prep Batch: 446685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total Recoverable	Water	3005A	
400-171046-2	MW-201	Total Recoverable	Water	3005A	
400-171046-3	MW-202	Total Recoverable	Water	3005A	
400-171046-4	MW-203	Total Recoverable	Water	3005A	
400-171046-5	MW-204	Total Recoverable	Water	3005A	
400-171046-6	MW-205	Total Recoverable	Water	3005A	
400-171046-7	MW-206	Total Recoverable	Water	3005A	
400-171046-8	DUP-03	Total Recoverable	Water	3005A	
400-171046-9	EB-03	Total Recoverable	Water	3005A	
400-171046-10	FB-03	Total Recoverable	Water	3005A	
MB 400-446685/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-446685/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-170945-B-7-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-170945-B-7-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 446993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total Recoverable	Water	6020	446685
400-171046-2	MW-201	Total Recoverable	Water	6020	446685
400-171046-3	MW-202	Total Recoverable	Water	6020	446685
400-171046-4	MW-203	Total Recoverable	Water	6020	446685
400-171046-5	MW-204	Total Recoverable	Water	6020	446685
400-171046-6	MW-205	Total Recoverable	Water	6020	446685
400-171046-7	MW-206	Total Recoverable	Water	6020	446685
400-171046-8	DUP-03	Total Recoverable	Water	6020	446685
400-171046-9	EB-03	Total Recoverable	Water	6020	446685
400-171046-10	FB-03	Total Recoverable	Water	6020	446685
MB 400-446685/1-A ^5	Method Blank	Total Recoverable	Water	6020	446685
LCS 400-446685/2-A	Lab Control Sample	Total Recoverable	Water	6020	446685
400-170945-B-7-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	446685
400-170945-B-7-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	446685

Analysis Batch: 447213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total Recoverable	Water	6020	446685
400-171046-2	MW-201	Total Recoverable	Water	6020	446685
400-171046-5	MW-204	Total Recoverable	Water	6020	446685
400-171046-5	MW-204	Total Recoverable	Water	6020	446685
400-171046-7	MW-206	Total Recoverable	Water	6020	446685
400-171046-8	DUP-03	Total Recoverable	Water	6020	446685

Analysis Batch: 447857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-7	MW-206	Total Recoverable	Water	6020	446685

General Chemistry

Analysis Batch: 443462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	SM 2540C	
400-171046-2	MW-201	Total/NA	Water	SM 2540C	
400-171046-3	MW-202	Total/NA	Water	SM 2540C	
400-171046-4	MW-203	Total/NA	Water	SM 2540C	
400-171046-5	MW-204	Total/NA	Water	SM 2540C	
400-171046-6	MW-205	Total/NA	Water	SM 2540C	
400-171046-7	MW-206	Total/NA	Water	SM 2540C	
MB 400-443462/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-443462/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171046-5 DU	MW-204	Total/NA	Water	SM 2540C	

Analysis Batch: 443503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	SM 4500 F C	
400-171046-2	MW-201	Total/NA	Water	SM 4500 F C	
MB 400-443503/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-443503/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-171007-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-171007-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 443503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171049-B-7 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 443518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-8	DUP-03	Total/NA	Water	SM 2540C	
400-171046-9	EB-03	Total/NA	Water	SM 2540C	
400-171046-10	FB-03	Total/NA	Water	SM 2540C	
MB 400-443518/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-443518/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171102-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	
400-171107-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 444194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-3	MW-202	Total/NA	Water	SM 4500 F C	
400-171046-4	MW-203	Total/NA	Water	SM 4500 F C	
400-171046-5	MW-204	Total/NA	Water	SM 4500 F C	
400-171046-6	MW-205	Total/NA	Water	SM 4500 F C	
400-171046-7	MW-206	Total/NA	Water	SM 4500 F C	
400-171046-8	DUP-03	Total/NA	Water	SM 4500 F C	
400-171046-9	EB-03	Total/NA	Water	SM 4500 F C	
400-171046-10	FB-03	Total/NA	Water	SM 4500 F C	
MB 400-444194/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-444194/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-171046-3 MS	MW-202	Total/NA	Water	SM 4500 F C	
400-171046-3 MSD	MW-202	Total/NA	Water	SM 4500 F C	
660-94993-A-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 444804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-171046-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-171046-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-171046-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-171046-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-171046-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-171046-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-171046-8	DUP-03	Total/NA	Water	SM 4500 SO4 E	
400-171046-9	EB-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-444804/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444804/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444804/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-171049-B-6 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-171049-B-6 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-171258-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-171258-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-10	FB-03	Total/NA	Water	SM 4500 SO4 E	
MB 400-444821/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 444821 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-444821/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444821/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-171258-D-5 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-171258-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-171046-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-171046-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-171046-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-171046-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-171046-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-171046-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-171046-8	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-171046-9	EB-03	Total/NA	Water	SM 4500 Cl- E	
400-171046-10	FB-03	Total/NA	Water	SM 4500 Cl- E	
MB 400-444889/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444889/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444889/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-171046-8 MS	DUP-03	Total/NA	Water	SM 4500 Cl- E	
400-171046-8 MSD	DUP-03	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 445517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	Field Sampling	
400-171046-2	MW-201	Total/NA	Water	Field Sampling	
400-171046-3	MW-202	Total/NA	Water	Field Sampling	
400-171046-4	MW-203	Total/NA	Water	Field Sampling	
400-171046-5	MW-204	Total/NA	Water	Field Sampling	
400-171046-6	MW-205	Total/NA	Water	Field Sampling	
400-171046-7	MW-206	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-446685/1-A ^5
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/03/19 10:17	07/05/19 15:31	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/03/19 10:17	07/05/19 15:31	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:31	5
Boron	0.021	U	0.050	0.021	mg/L		07/03/19 10:17	07/05/19 15:31	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/03/19 10:17	07/05/19 15:31	5
Calcium	0.13	U	0.25	0.13	mg/L		07/03/19 10:17	07/05/19 15:31	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/03/19 10:17	07/05/19 15:31	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/03/19 10:17	07/05/19 15:31	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/03/19 10:17	07/05/19 15:31	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/03/19 10:17	07/05/19 15:31	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/03/19 10:17	07/05/19 15:31	5

Lab Sample ID: LCS 400-446685/2-A
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0532		mg/L		106	80 - 120
Barium	0.0500	0.0525		mg/L		105	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Boron	0.100	0.0956		mg/L		96	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Calcium	1.00	1.08		mg/L		108	80 - 120
Cobalt	0.0500	0.0553		mg/L		111	80 - 120
Lead	0.0500	0.0497		mg/L		99	80 - 120
Lithium	0.0500	0.0512		mg/L		102	80 - 120
Selenium	0.0500	0.0523		mg/L		105	80 - 120
Thallium	0.0500	0.0520		mg/L		104	80 - 120

Lab Sample ID: 400-170945-B-7-C MS ^5
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00046	U	0.0500	0.0517		mg/L		103	75 - 125
Barium	0.014		0.0500	0.0654		mg/L		103	75 - 125
Beryllium	0.00034	U	0.0500	0.0511		mg/L		102	75 - 125
Boron	0.021	U	0.100	0.0970		mg/L		97	75 - 125
Cadmium	0.00034	U	0.0500	0.0538		mg/L		108	75 - 125
Calcium	0.57		1.00	1.58		mg/L		101	75 - 125
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125
Lead	0.00035	U	0.0500	0.0443		mg/L		89	75 - 125
Lithium	0.0013	I	0.0500	0.0521		mg/L		101	75 - 125
Selenium	0.0016		0.0500	0.0525		mg/L		102	75 - 125
Thallium	0.00014	I	0.0500	0.0433		mg/L		86	75 - 125

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

Lab Sample ID: 400-170945-B-7-D MSD ^5
Matrix: Water
Analysis Batch: 446993

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 446685

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00046	U	0.0500	0.0521		mg/L		104	75 - 125	1	20
Barium	0.014		0.0500	0.0649		mg/L		102	75 - 125	1	20
Beryllium	0.00034	U	0.0500	0.0494		mg/L		99	75 - 125	4	20
Boron	0.021	U	0.100	0.0874		mg/L		87	75 - 125	10	20
Cadmium	0.00034	U	0.0500	0.0540		mg/L		108	75 - 125	0	20
Calcium	0.57		1.00	1.57		mg/L		100	75 - 125	0	20
Cobalt	0.00040	U	0.0500	0.0499		mg/L		100	75 - 125	0	20
Lead	0.00035	U	0.0500	0.0440		mg/L		88	75 - 125	1	20
Lithium	0.0013	I	0.0500	0.0506		mg/L		99	75 - 125	3	20
Selenium	0.0016		0.0500	0.0524		mg/L		102	75 - 125	0	20
Thallium	0.00014	I	0.0500	0.0425		mg/L		85	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-444697/14-A
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 444697

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/17/19 10:42	06/18/19 12:07	1

Lab Sample ID: LCS 400-444697/15-A
Matrix: Water
Analysis Batch: 444887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 444697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000983		mg/L		98	80 - 120

Lab Sample ID: 400-171046-1 MS
Matrix: Water
Analysis Batch: 444887

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 444697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00061		0.00201	0.00240		mg/L		89	80 - 120

Lab Sample ID: 400-171046-1 MSD
Matrix: Water
Analysis Batch: 444887

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 444697

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00061		0.00201	0.00254		mg/L		96	80 - 120	6	20

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

Lab Sample ID: MB 400-443462/1
Matrix: Water
Analysis Batch: 443462

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/06/19 10:19	1

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

Lab Sample ID: LCS 400-443462/2
Matrix: Water
Analysis Batch: 443462

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	286		mg/L		98	78 - 122		

Lab Sample ID: 400-171046-5 DU
Matrix: Water
Analysis Batch: 443462

Client Sample ID: MW-204
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	660			648		mg/L				2	5

Lab Sample ID: MB 400-443518/1
Matrix: Water
Analysis Batch: 443518

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/06/19 14:07	1

Lab Sample ID: LCS 400-443518/2
Matrix: Water
Analysis Batch: 443518

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	272		mg/L		93	78 - 122		

Lab Sample ID: 400-171102-A-3 DU
Matrix: Water
Analysis Batch: 443518

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	240			242		mg/L				2	5

Lab Sample ID: 400-171107-A-3 DU
Matrix: Water
Analysis Batch: 443518

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	110			110		mg/L				2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444889/6
Matrix: Water
Analysis Batch: 444889

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/18/19 13:23	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 400-444889/7
Matrix: Water
Analysis Batch: 444889

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.1		mg/L		104	90 - 110

Lab Sample ID: MRL 400-444889/3
Matrix: Water
Analysis Batch: 444889

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.35	I	mg/L		67	50 - 150

Lab Sample ID: 400-171046-8 MS
Matrix: Water
Analysis Batch: 444889

Client Sample ID: DUP-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100		10.0	106	J3	mg/L		65	73 - 120

Lab Sample ID: 400-171046-8 MSD
Matrix: Water
Analysis Batch: 444889

Client Sample ID: DUP-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		10.0	104	J3	mg/L		43	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-443503/3
Matrix: Water
Analysis Batch: 443503

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/06/19 10:55	1

Lab Sample ID: LCS 400-443503/4
Matrix: Water
Analysis Batch: 443503

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.61		mg/L		90	90 - 110

Lab Sample ID: 400-171007-A-1 MS
Matrix: Water
Analysis Batch: 443503

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.58		1.00	1.52		mg/L		94	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-171007-A-1 MSD
Matrix: Water
Analysis Batch: 443503

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.58		1.00	1.55		mg/L		97	75 - 125	2	4

Lab Sample ID: 400-171049-B-7 DU
Matrix: Water
Analysis Batch: 443503

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.040	I		0.0400	I	mg/L				0	4

Lab Sample ID: MB 400-444194/3
Matrix: Water
Analysis Batch: 444194

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/12/19 12:24	1

Lab Sample ID: LCS 400-444194/4
Matrix: Water
Analysis Batch: 444194

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 400-171046-3 MS
Matrix: Water
Analysis Batch: 444194

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.040	I	1.00	1.02		mg/L		98	75 - 125		

Lab Sample ID: 400-171046-3 MSD
Matrix: Water
Analysis Batch: 444194

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	I	1.00	1.02		mg/L		98	75 - 125	0	4

Lab Sample ID: 660-94993-A-1 DU
Matrix: Water
Analysis Batch: 444194

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	1.5			1.47		mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444804/6
Matrix: Water
Analysis Batch: 444804

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 08:22	1

Lab Sample ID: LCS 400-444804/7
Matrix: Water
Analysis Batch: 444804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.9		mg/L		106	90 - 110

Lab Sample ID: MRL 400-444804/3
Matrix: Water
Analysis Batch: 444804

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.58	I	mg/L		92	50 - 150

Lab Sample ID: 400-171049-B-6 MS
Matrix: Water
Analysis Batch: 444804

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	150		10.0	160	J3	mg/L		53	77 - 128

Lab Sample ID: 400-171049-B-6 MSD
Matrix: Water
Analysis Batch: 444804

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	150		10.0	157	J3	mg/L		26	77 - 128	2	5

Lab Sample ID: 400-171258-D-1 MS
Matrix: Water
Analysis Batch: 444804

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.9	I	10.0	11.3		mg/L		94	77 - 128

Lab Sample ID: 400-171258-D-1 MSD
Matrix: Water
Analysis Batch: 444804

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.9	I	10.0	11.2		mg/L		93	77 - 128	1	5

Lab Sample ID: MB 400-444821/6
Matrix: Water
Analysis Batch: 444821

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 10:04	1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: LCS 400-444821/7
Matrix: Water
Analysis Batch: 444821

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	16.0		mg/L		106	90 - 110		

Lab Sample ID: MRL 400-444821/3
Matrix: Water
Analysis Batch: 444821

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.58	I	mg/L		92	50 - 150		

Lab Sample ID: 400-171258-D-5 MS
Matrix: Water
Analysis Batch: 444821

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	2.5	I	10.0	11.5		mg/L		91	77 - 128		

Lab Sample ID: 400-171258-D-5 MSD
Matrix: Water
Analysis Batch: 444821

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	2.5	I	10.0	11.5		mg/L		91	77 - 128	0	5

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

400-171046 COC

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Swles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 1
Company: Gulf Power Company				Job #: 171046

Address: BIN 731 One Energy Place	Due Date Requested:	Analysis Requested
City: Pensacola	TAT Requested (days):	
State, Zip: FL, 32520		
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required	
Email: Richard.Markey@nexteraenergy.com	WO #:	
Project Name: CCR Plant Crist	Project #: 40005424	
Site: Downgradient	SSOW#:	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Co,Li,Pb,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	6/4/19	0740	G	Water			X	X	X	X		
MW-201	6/4/19	0914		Water								
MW-202	6/4/19	1147		Water								
MW-203	6/4/19	0835		Water								
MW-204	6/4/19	0940		Water								
MW-205	6/4/19	1110		Water								
MW-206	6/4/19	0628		Water						X		
Dup-03	6/4/19	0814		W								
EB-03	6/4/19	0900		W								
FB-03	6/4/19	0820	G	W			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/4/19 1325	EDH	Kathy R Avery	6-4-19 1325	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8, 0.3°C IR7

8/21/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171046-1
SDG Number: Downgradient

Login Number: 171046
List Number: 1
Creator: Whitmire, Cheyenne R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 & 0.3°C, IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-1
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-20
Florida	NELAP	4	E81010	06-30-20
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Illinois	NELAP		004586	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-20
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19 *

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-171046-2
Laboratory Sample Delivery Group: Downgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
8/21/2019 6:02:39 PM

Cheyenne Whitmire, Project Manager II
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LINKS

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

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

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Job ID: 400-171046-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-171046-2

RAD

Method(s) 9315: Ra-226 Prep Batch 160-431902. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-171046-1), MW-201 (400-171046-2), MW-202 (400-171046-3), MW-203 (400-171046-4), (LCS 160-431902/1-A), (LCSD 160-431902/2-A) and (MB 160-431902/23-A)

Method(s) 9315: Ra-226 Prep Batch 160-431905. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-204 (400-171046-5), MW-205 (400-171046-6), MW-206 (400-171046-7), DUP-03 (400-171046-8), EB-03 (400-171046-9), FB-03 (400-171046-10), (LCS 160-431905/1-A), (MB 160-431905/23-A), (400-171050-A-1-A) and (400-171050-B-1-A DU)

Method(s) 9320: Ra-228 Prep Batch 160-431904. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-171046-1), MW-201 (400-171046-2), MW-202 (400-171046-3), MW-203 (400-171046-4), (LCS 160-431904/1-A), (LCSD 160-431904/2-A) and (MB 160-431904/23-A)

Method(s) 9320: Ra-228 Batch 160-431909. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-204 (400-171046-5), MW-205 (400-171046-6), MW-206 (400-171046-7), DUP-03 (400-171046-8), EB-03 (400-171046-9), FB-03 (400-171046-10), (LCS 160-431909/1-A), (MB 160-431909/23-A), (400-171050-A-1-B) and (400-171050-B-1-B DU)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431904. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-200 (400-171046-1), MW-201 (400-171046-2), MW-202 (400-171046-3) and MW-203 (400-171046-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431902. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-200 (400-171046-1), MW-201 (400-171046-2), MW-202 (400-171046-3) and MW-203 (400-171046-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-171046-1	MW-200	Water	06/04/19 07:40	06/04/19 13:25	
400-171046-2	MW-201	Water	06/04/19 09:14	06/04/19 13:25	
400-171046-3	MW-202	Water	06/04/19 11:47	06/04/19 13:25	
400-171046-4	MW-203	Water	06/04/19 08:35	06/04/19 13:25	
400-171046-5	MW-204	Water	06/04/19 09:40	06/04/19 13:25	
400-171046-6	MW-205	Water	06/04/19 11:10	06/04/19 13:25	
400-171046-7	MW-206	Water	06/04/19 06:28	06/04/19 13:25	
400-171046-8	DUP-03	Water	06/04/19 08:14	06/04/19 13:25	
400-171046-9	EB-03	Water	06/04/19 09:00	06/04/19 13:25	
400-171046-10	FB-03	Water	06/04/19 08:20	06/04/19 13:25	

Client Sample ID: MW-200

Date Collected: 06/04/19 07:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.24		0.291	0.411	1.00	0.0836	pCi/L	06/17/19 15:40	07/29/19 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*40 - 110*	*06/17/19 15:40*	*07/29/19 12:12*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.47		0.541	0.679	1.00	0.447	pCi/L	06/17/19 16:18	07/08/19 09:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:36*	*1*
Y Carrier	*79.6*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:36*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.70		0.614	0.794	5.00	0.447	pCi/L		07/30/19 08:00	1

Client Sample ID: MW-201

Date Collected: 06/04/19 09:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.89		0.220	0.278	1.00	0.0727	pCi/L	06/17/19 15:40	07/29/19 14:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*06/17/19 15:40*	*07/29/19 14:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.01		0.509	0.629	1.00	0.463	pCi/L	06/17/19 16:18	07/08/19 09:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:38*	*1*
Y Carrier	*82.6*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.89		0.555	0.688	5.00	0.463	pCi/L		07/30/19 08:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Client Sample ID: MW-202

Date Collected: 06/04/19 11:47
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.861		0.155	0.173	1.00	0.0975	pCi/L	06/17/19 15:40	07/29/19 14:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*06/17/19 15:40*	*07/29/19 14:27*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.500		0.272	0.276	1.00	0.405	pCi/L	06/17/19 16:18	07/08/19 09:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:38*	*1*
Y Carrier	*86.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.36		0.313	0.326	5.00	0.405	pCi/L		07/30/19 08:00	1

Client Sample ID: MW-203

Date Collected: 06/04/19 08:35
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.69		0.211	0.260	1.00	0.0991	pCi/L	06/17/19 15:40	07/29/19 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/17/19 15:40*	*07/29/19 14:28*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.18		0.483	0.618	1.00	0.390	pCi/L	06/17/19 16:18	07/08/19 09:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:39*	*1*
Y Carrier	*86.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.87		0.527	0.670	5.00	0.390	pCi/L		07/30/19 08:00	1

Client Sample ID: MW-204

Date Collected: 06/04/19 09:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.13		0.178	0.205	1.00	0.0693	pCi/L	06/17/19 16:24	08/15/19 17:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/17/19 16:24*	*08/15/19 17:44*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	11.4		1.06	1.49	1.00	0.695	pCi/L	06/17/19 18:47	07/24/19 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*
Y Carrier	*53.8*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	12.5		1.07	1.50	5.00	0.695	pCi/L		08/21/19 10:52	1

Client Sample ID: MW-205

Date Collected: 06/04/19 11:10
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.886		0.147	0.168	1.00	0.0576	pCi/L	06/17/19 16:24	08/15/19 23:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*06/17/19 16:24*	*08/15/19 23:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.388	0.399	1.00	0.524	pCi/L	06/17/19 18:47	07/24/19 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*
Y Carrier	*63.2*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.91		0.415	0.433	5.00	0.524	pCi/L		08/21/19 10:52	1

Client Sample ID: MW-206

Date Collected: 06/04/19 06:28
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.96		0.284	0.389	1.00	0.0683	pCi/L	06/17/19 16:24	08/15/19 23:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.6*		*40 - 110*	*06/17/19 16:24*	*08/15/19 23:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.41		0.924	1.05	1.00	1.00	pCi/L	06/17/19 18:47	07/24/19 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.6*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*
Y Carrier	*47.9*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	8.36		0.967	1.12	5.00	1.00	pCi/L		08/21/19 10:52	1

Client Sample ID: DUP-03

Date Collected: 06/04/19 08:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.46		0.252	0.336	1.00	0.0606	pCi/L	06/17/19 16:24	08/15/19 23:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*40 - 110*	*06/17/19 16:24*	*08/15/19 23:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.08		0.659	0.758	1.00	0.668	pCi/L	06/17/19 18:47	07/24/19 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*
Y Carrier	*59.8*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.54		0.706	0.829	5.00	0.668	pCi/L		08/21/19 10:52	1

Client Sample ID: EB-03

Date Collected: 06/04/19 09:00
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00457	U	0.0305	0.0305	1.00	0.0664	pCi/L	06/17/19 16:24	08/15/19 23:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*06/17/19 16:24*	*08/15/19 23:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.557	U	0.428	0.431	1.00	0.674	pCi/L	06/17/19 18:47	07/24/19 14:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:29*	*1*
Y Carrier	*57.9*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.562	U	0.429	0.432	5.00	0.674	pCi/L		08/21/19 10:52	1

Client Sample ID: FB-03

Date Collected: 06/04/19 08:20
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00762	U	0.0353	0.0353	1.00	0.0737	pCi/L	06/17/19 16:24	08/15/19 23:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.8*		*40 - 110*	*06/17/19 16:24*	*08/15/19 23:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.560	U	0.457	0.460	1.00	0.727	pCi/L	06/17/19 18:47	07/24/19 14:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.8*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:29*	*1*
Y Carrier	*58.7*		*40 - 110*	*06/17/19 18:47*	*07/24/19 14:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.567	U	0.458	0.461	5.00	0.727	pCi/L		08/21/19 10:52	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Qualifiers

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Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Client Sample ID: MW-200
Date Collected: 06/04/19 07:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436835	07/29/19 12:12	JLW	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434025	07/08/19 09:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: MW-201
Date Collected: 06/04/19 09:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436835	07/29/19 14:27	JLW	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434009	07/08/19 09:38	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: MW-202
Date Collected: 06/04/19 11:47
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436835	07/29/19 14:27	JLW	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434009	07/08/19 09:38	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: MW-203
Date Collected: 06/04/19 08:35
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436835	07/29/19 14:28	JLW	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434009	07/08/19 09:39	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Client Sample ID: MW-204
Date Collected: 06/04/19 09:40
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 17:44	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:28	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Client Sample ID: MW-205
Date Collected: 06/04/19 11:10
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 23:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:28	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Client Sample ID: MW-206
Date Collected: 06/04/19 06:28
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 23:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:28	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Client Sample ID: DUP-03
Date Collected: 06/04/19 08:14
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 23:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:28	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Client Sample ID: EB-03

Date Collected: 06/04/19 09:00
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 23:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Client Sample ID: FB-03

Date Collected: 06/04/19 08:20
Date Received: 06/04/19 13:25

Lab Sample ID: 400-171046-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431905	06/17/19 16:24	ORM	TAL SL
Total/NA	Analysis	9315		1	439665	08/15/19 23:07	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431909	06/17/19 18:47	ORM	TAL SL
Total/NA	Analysis	9320		1	436168	07/24/19 14:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440144	08/21/19 10:52	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

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Prep Batch: 431902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	PrecSep-21	
400-171046-2	MW-201	Total/NA	Water	PrecSep-21	
400-171046-3	MW-202	Total/NA	Water	PrecSep-21	
400-171046-4	MW-203	Total/NA	Water	PrecSep-21	
MB 160-431902/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431902/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-431902/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 431904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-1	MW-200	Total/NA	Water	PrecSep_0	
400-171046-2	MW-201	Total/NA	Water	PrecSep_0	
400-171046-3	MW-202	Total/NA	Water	PrecSep_0	
400-171046-4	MW-203	Total/NA	Water	PrecSep_0	
MB 160-431904/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431904/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-431904/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 431905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-5	MW-204	Total/NA	Water	PrecSep-21	
400-171046-6	MW-205	Total/NA	Water	PrecSep-21	
400-171046-7	MW-206	Total/NA	Water	PrecSep-21	
400-171046-8	DUP-03	Total/NA	Water	PrecSep-21	
400-171046-9	EB-03	Total/NA	Water	PrecSep-21	
400-171046-10	FB-03	Total/NA	Water	PrecSep-21	
MB 160-431905/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431905/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-171050-B-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 431909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171046-5	MW-204	Total/NA	Water	PrecSep_0	
400-171046-6	MW-205	Total/NA	Water	PrecSep_0	
400-171046-7	MW-206	Total/NA	Water	PrecSep_0	
400-171046-8	DUP-03	Total/NA	Water	PrecSep_0	
400-171046-9	EB-03	Total/NA	Water	PrecSep_0	
400-171046-10	FB-03	Total/NA	Water	PrecSep_0	
MB 160-431909/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431909/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-171050-B-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431902/23-A
Matrix: Water
Analysis Batch: 436835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431902

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0005976	U	0.0397	0.0397	1.00	0.0835	pCi/L	06/17/19 15:40	07/29/19 14:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/17/19 15:40*	*07/29/19 14:28*	*1*

Lab Sample ID: LCS 160-431902/1-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431902

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.929		0.934	1.00	0.0826	pCi/L	79	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.6*		*40 - 110*

Lab Sample ID: LCSD 160-431902/2-A
Matrix: Water
Analysis Batch: 436763

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431902

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.891		1.04	1.00	0.111	pCi/L	87	75 - 125	0.49	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*91.8*		*40 - 110*

Lab Sample ID: MB 160-431905/23-A
Matrix: Water
Analysis Batch: 439719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431905

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.002224	U	0.0515	0.0515	1.00	0.106	pCi/L	06/17/19 16:24	08/16/19 07:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.3*		*40 - 110*	*06/17/19 16:24*	*08/16/19 07:34*	*1*

Lab Sample ID: LCS 160-431905/1-A
Matrix: Water
Analysis Batch: 439665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431905

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	9.447		0.980	1.00	0.0703	pCi/L	83	75 - 125		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-431905/1-A
Matrix: Water
Analysis Batch: 439665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431905

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.5		40 - 110

Lab Sample ID: 400-171050-B-1-A DU
Matrix: Water
Analysis Batch: 439859

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431905

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.625			0.7206		0.205	1.00	0.190	pCi/L			0.25	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	76.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431904/23-A
Matrix: Water
Analysis Batch: 434009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431904

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.006475	U	0.220	0.220	1.00	0.394	pCi/L	06/17/19 16:18	07/08/19 09:39	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110	06/17/19 16:18	07/08/19 09:39	1
Y Carrier	86.7		40 - 110	06/17/19 16:18	07/08/19 09:39	1

Lab Sample ID: LCS 160-431904/1-A
Matrix: Water
Analysis Batch: 434008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431904

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.04	8.944		1.09	1.00	0.468	pCi/L	99	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: LCSD 160-431904/2-A
Matrix: Water
Analysis Batch: 434008

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431904

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.04	9.102		1.09	1.00	0.427	pCi/L	101	75 - 125	0.07	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-431904/2-A
Matrix: Water
Analysis Batch: 434008

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431904

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	91.8		40 - 110
Y Carrier	83.4		40 - 110

Lab Sample ID: MB 160-431909/23-A
Matrix: Water
Analysis Batch: 436188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431909

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2710	U	0.341	0.342	1.00	0.664	pCi/L	06/17/19 18:47	07/24/19 14:40	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.3		40 - 110	06/17/19 18:47	07/24/19 14:40	1
Y Carrier	68.8		40 - 110	06/17/19 18:47	07/24/19 14:40	1

Lab Sample ID: LCS 160-431909/1-A
Matrix: Water
Analysis Batch: 436168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431909

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.00	8.686		1.15	1.00	0.605	pCi/L	97	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.5		40 - 110
Y Carrier	60.9		40 - 110

Lab Sample ID: 400-171050-B-1-B DU
Matrix: Water
Analysis Batch: 436168

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 431909

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.46			0.5916	U	0.617	1.00	1.00	pCi/L			0.68	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	76.8		40 - 110
Y Carrier	58.3		40 - 110

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 400-171050-A-1 DU
Matrix: Water
Analysis Batch: 440144

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	2.08			1.312		0.650	5.00	1.00	pCi/L			0.58	

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

400-171046 COC

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Brett Swles	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No:
Client Contact: Richard Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1
Company: Gulf Power Company				Job #: 171046
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6427(Tel)	PO #: Purchase Order not required			
Email: Richard.Markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Downgradient	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Co,Li,Pb,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N		
MW-200	6/4/19	0740	G	Water			X	X	X	X		
MW-201	6/4/19	0914		Water								
MW-202	6/4/19	1147		Water								
MW-203	6/4/19	0835		Water								
MW-204	6/4/19	0940		Water								
MW-205	6/4/19	1110		Water								
MW-206	6/4/19	0628		Water						X		
DUP-03	6/4/19	0814		W								
EB-03	6/4/19	0900		W								
FB-03	6/4/19	0820	G	W			X	X	X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/4/19 1325	EDH	Kathy R Avery	6-4-19 1325	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.8, 0.3°C IR7

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171046-2
SDG Number: Downgradient

Login Number: 171046
List Number: 1
Creator: Whitmire, Cheyenne R

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8 & 0.3°C, IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171046-2
SDG Number: Downgradient

Login Number: 171046
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/07/19 01:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-19
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-19
Oklahoma	State Program	9810	08-31-19
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-19 *
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	07-31-19 *

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171046-2
SDG: Downgradient

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	DoD	L2305	04-06-22
ANAB	DOE	L2305.01	04-06-22
Arizona	State	AZ0813	12-08-19
Arizona	State Program	AZ0813	12-08-19
California	State	2886	06-30-20
California	State Program	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Connecticut	State Program	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
Florida	NELAP	E87689	06-30-20
Hawaii	State Program	NA	06-30-20
Illinois	NELAP	200023	11-30-19
Illinois	NELAP	004553	11-30-19
Iowa	State Program	373	12-01-20
Kansas	NELAP	E-10236	10-31-19
Kentucky (DW)	State	KY90125	12-31-19
Kentucky (DW)	State Program	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	NELAP	LA011	12-31-19
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
Maryland	State Program	310	09-30-20
Michigan	State Program	9005	06-30-20
Missouri	State	780	06-30-22
Missouri	State Program	780	06-30-20
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	03-31-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
North Dakota	State Program	R207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-19
Oklahoma	State Program	9997	08-31-19 *
Pennsylvania	NELAP	68-00540	02-28-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State Program	85002001	06-30-20
Texas	NELAP	T104704193-19-14	07-31-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	Federal	058448	07-31-20
USDA	Federal	P330-17-0028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	460230	06-14-20
Virginia	NELAP	10310	06-14-20
Washington	State Program	C592	08-30-19
West Virginia DEP	State Program	381	08-31-19 *

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

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-171344-1
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
9/11/2019 12:11:28 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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

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

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Job ID: 400-171344-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-171344-1

Metals

Method(s) 6020: The method blank for preparation batch 400-447169 and analytical batch 400-454169 contained Boron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-447169 and analytical batch 400-454169 recovered outside control limits for the following analytes: Boron. Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the LCS.

Method(s) 6020: The continuing calibration verification (CCV) associated with batch 400-454169 recovered above the upper control limit for Boron. Associated samples were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the CCV: PZ-200S (400-171344-1) and GSA-2S (400-171344-3).

Method(s) 6020: The continuing calibration blank (CCB) for analytical batch 400-454169 contained Thallium, Dissolved above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

General Chemistry

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample, the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171046-B-8 MS), (400-171046-B-8 MSD), (400-171049-B-7 MS) and (400-171049-B-7 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444889 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: GSA-2S (400-171344-3), (400-171046-B-8), (400-171046-B-8 MS), (400-171046-B-8 MSD), (400-171049-B-7), (400-171049-B-7 MS) and (400-171049-B-7 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171490-A-1 MS) and (400-171490-A-1 MSD)

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-444984 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-171344-1), (400-171490-A-1), (400-171490-A-1 MS) and (400-171490-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-171344-A-3 MS) and (400-171344-A-3 MSD)

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-171344-1), GSA-2S (400-171344-3), GE-4D (400-171344-9), (400-171344-A-3 MS) and (400-171344-A-3 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S — Lab Sample ID: 400-171344-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.041		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	14	J3	0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	160		2.5	1.3	mg/L	50		6020	Total Recoverable
Cobalt	0.0034		0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lead	0.00056	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0013	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0025		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00031	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	980		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	290		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Sulfate	120		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.75				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-200D — Lab Sample ID: 400-171344-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.031		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.045	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0024	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Barium, Dissolved	0.027		0.0025	0.00049	mg/L	5		6020	Dissolved
Calcium, Dissolved	4.3		0.25	0.13	mg/L	5		6020	Dissolved
Thallium, Dissolved	0.0025		0.00050	0.000085	mg/L	5		6020	Dissolved
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Total Dissolved Solids Field Filtered	96		5.0	3.4	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	3.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Dissolved
Fluoride, Dissolved	0.080	I	0.10	0.032	mg/L	1		SM 4500 F C	Dissolved
Sulfate, Dissolved	6.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Dissolved
Field pH	6.71				SU	1		Field Sampling	Total/NA

Client Sample ID: GSA-2S — Lab Sample ID: 400-171344-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.062		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	8.6	J3	0.50	0.21	mg/L	50		6020	Total Recoverable
Calcium	78		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0010	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: GSA-2S (Continued) — Lab Sample ID: 400-171344-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0011	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.0019	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0016		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00011	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	540		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	150		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.060	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	46		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	4.29				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-201D — Lab Sample ID: 400-171344-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.058		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.036	I	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	8.4		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00046	I	0.0013	0.00035	mg/L	5		6020	Total Recoverable
Lithium	0.023		0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	2.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	7.35				SU	1		Field Sampling	Total/NA

Client Sample ID: GE-1D — Lab Sample ID: 400-171344-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0016	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0046	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	130		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	27		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.0	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.98				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-171344-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.018		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Calcium	9.7		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-01 (Continued) — Lab Sample ID: 400-171344-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0015	I	0.0025	0.00040	mg/L	5		6020	Total Recoverable
Lithium	0.0036	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	110		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	27		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-171344-7

No Detections.

Client Sample ID: EB-01 — Lab Sample ID: 400-171344-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0012	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: GE-4D — Lab Sample ID: 400-171344-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.067		0.0025	0.00049	mg/L	5		6020	Total Recoverable
Boron	0.90		0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	16		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.0017	I	0.0050	0.0011	mg/L	5		6020	Total Recoverable
Selenium	0.0027		0.0013	0.00071	mg/L	5		6020	Total Recoverable
Thallium	0.00016	I	0.00050	0.000085	mg/L	5		6020	Total Recoverable
Mercury	0.000081	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	33		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	55		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	5.30				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-171344-1	PZ-200S	Water	06/07/19 17:00	06/08/19 11:05	
400-171344-2	PZ-200D	Water	06/07/19 10:37	06/08/19 11:05	
400-171344-3	GSA-2S	Water	06/05/19 09:05	06/08/19 11:05	
400-171344-4	PZ-201D	Water	06/07/19 07:25	06/08/19 11:05	
400-171344-5	GE-1D	Water	06/07/19 13:07	06/08/19 11:05	
400-171344-6	DUP-01	Water	06/07/19 12:07	06/08/19 11:05	
400-171344-7	FB-01	Water	06/07/19 12:00	06/08/19 11:05	
400-171344-8	EB-01	Water	06/07/19 15:50	06/08/19 11:05	
400-171344-9	GE-4D	Water	06/05/19 19:14	06/08/19 11:05	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S

Date Collected: 06/07/19 17:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0046	U	0.013	0.0046	mg/L		07/09/19 09:00	08/26/19 22:12	50
Barium	**0.041**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:06	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:31	5
Boron	**14**	**J3**	0.50	0.21	mg/L		07/09/19 09:00	08/26/19 22:12	50
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:31	5
Calcium	**160**		2.5	1.3	mg/L		07/09/19 09:00	08/26/19 22:12	50
Cobalt	**0.0034**		0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:31	5
Lead	**0.00056**	**I**	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:06	5
Lithium	**0.0013**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:31	5
Selenium	**0.0025**		0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:31	5
Thallium	**0.00031**	**I**	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:06	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 13:52	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**980**		10	6.8	mg/L			06/13/19 16:46	1
Chloride	**290**		20	14	mg/L			06/19/19 08:27	10
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 14:39	1
Sulfate	**120**		50	14	mg/L			06/18/19 10:34	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.75**				SU			06/07/19 17:00	1

Client Sample ID: PZ-200D

Date Collected: 06/07/19 10:37
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 22:17	5
Barium	**0.031**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:17	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:35	5
Boron	**0.045**	**I**	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:13	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:35	5
Calcium	**4.7**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:17	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:35	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:17	5
Lithium	**0.0024**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:35	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:35	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:17	5

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:17	08/26/19 23:29	5
Boron, Dissolved	0.021	U	0.050	0.021	mg/L		07/09/19 09:17	09/08/19 16:13	5
Barium, Dissolved	**0.027**		0.0025	0.00049	mg/L		07/09/19 09:17	08/26/19 23:29	5
Beryllium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:17	08/26/19 23:29	5
Calcium, Dissolved	**4.3**		0.25	0.13	mg/L		07/09/19 09:17	08/26/19 23:29	5
Cadmium, Dissolved	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:17	08/26/19 23:29	5
Cobalt, Dissolved	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:17	08/26/19 23:29	5
Lead, Dissolved	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:17	08/26/19 23:29	5
Thallium, Dissolved	**0.0025**		0.00050	0.000085	mg/L		07/09/19 09:17	08/26/19 23:29	5
Selenium, Dissolved	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:17	08/26/19 23:29	5
Lithium, Dissolved	0.0011	U	0.0050	0.0011	mg/L		07/09/19 09:17	08/26/19 23:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:00	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:01	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride	**3.4**		2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	**0.080**	**I**	0.10	0.032	mg/L			06/19/19 14:41	1
Sulfate	**8.1**		5.0	1.4	mg/L			06/18/19 10:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	**96**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride, Dissolved	**3.1**		2.0	1.4	mg/L			06/19/19 07:35	1
Fluoride, Dissolved	**0.080**	**I**	0.10	0.032	mg/L			06/19/19 14:41	1
Sulfate, Dissolved	**6.5**		5.0	1.4	mg/L			06/18/19 10:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D
Date Collected: 06/07/19 10:37
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-2
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.71				SU			06/07/19 10:37	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: GSA-2S

Date Collected: 06/05/19 09:05
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0046	U	0.013	0.0046	mg/L		07/09/19 09:00	08/26/19 22:28	50
Barium	**0.062**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:23	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:39	5
Boron	**8.6**	**J3**	0.50	0.21	mg/L		07/09/19 09:00	08/26/19 22:28	50
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:39	5
Calcium	**78**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:23	5
Cobalt	**0.0010**	**I**	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:39	5
Lead	**0.0011**	**I**	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:23	5
Lithium	**0.0019**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:39	5
Selenium	**0.0016**		0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:39	5
Thallium	**0.00011**	**I**	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:23	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**540**		5.0	3.4	mg/L			06/12/19 13:35	1
Chloride	**150**		20	14	mg/L			06/18/19 14:17	10
Fluoride	**0.060**	**I**	0.10	0.032	mg/L			06/12/19 13:36	1
Sulfate	**46**		10	2.8	mg/L			06/18/19 10:31	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.29**				SU			06/05/19 09:05	1

Client Sample ID: PZ-201D

Date Collected: 06/07/19 07:25
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/27/19 23:24	5
Barium	**0.058**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:34	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:43	5
Boron	**0.036**	**I**	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:24	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:43	5
Calcium	**8.4**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:34	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:43	5
Lead	**0.00046**	**I**	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:34	5
Lithium	**0.023**		0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:43	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:43	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:34	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:05	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride	**2.9**		2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			06/19/19 14:50	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 10:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**7.35**				SU			06/07/19 07:25	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D

Date Collected: 06/07/19 13:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 22:39	5
Barium	**0.018**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:39	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:47	5
Boron	0.021	U	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:29	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:47	5
Calcium	**9.9**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:39	5
Cobalt	**0.0016**	**I**	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:47	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:39	5
Lithium	**0.0046**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:47	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:47	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:39	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride	**27**		2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 14:53	1
Sulfate	**3.0**	**I**	5.0	1.4	mg/L			06/18/19 10:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.98**				SU			06/07/19 13:07	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-01
Date Collected: 06/07/19 12:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-6
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 22:45	5
Barium	**0.018**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:45	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:51	5
Boron	0.021	U	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:40	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:51	5
Calcium	**9.7**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:45	5
Cobalt	**0.0015**	**I**	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:51	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:45	5
Lithium	**0.0036**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:51	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:51	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:45	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**110**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride	**27**		2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 15:10	1
Sulfate	**3.7**	**I**	5.0	1.4	mg/L			06/18/19 10:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: FB-01

Date Collected: 06/07/19 12:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 22:50	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:50	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:55	5
Boron	0.021	U	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:46	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:55	5
Calcium	0.13	U	0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:50	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:55	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:50	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:55	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:55	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:50	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/13/19 16:46	1
Chloride	1.4	U	2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 15:13	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 10:15	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: EB-01

Date Collected: 06/07/19 15:50
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 22:56	5
Barium	0.00049	U	0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 22:56	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:59	5
Boron	0.021	U	0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:51	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 01:59	5
Calcium	0.13	U	0.25	0.13	mg/L		07/09/19 09:00	08/26/19 22:56	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 01:59	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 22:56	5
Lithium	**0.0012**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 01:59	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 01:59	5
Thallium	0.000085	U	0.00050	0.000085	mg/L		07/09/19 09:00	08/26/19 22:56	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 14:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			06/13/19 16:26	1
Chloride	1.4	U	2.0	1.4	mg/L			06/19/19 07:38	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 14:47	1
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 12:19	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-4D

Date Collected: 06/05/19 19:14
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00046	U	0.0013	0.00046	mg/L		07/09/19 09:00	08/26/19 23:13	5
Barium	**0.067**		0.0025	0.00049	mg/L		07/09/19 09:00	08/26/19 23:13	5
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 02:03	5
Boron	**0.90**		0.050	0.021	mg/L		07/09/19 09:00	08/27/19 23:57	5
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 02:03	5
Calcium	**16**		0.25	0.13	mg/L		07/09/19 09:00	08/26/19 23:13	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 02:03	5
Lead	0.00035	U	0.0013	0.00035	mg/L		07/09/19 09:00	08/26/19 23:13	5
Lithium	**0.0017**	**I**	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 02:03	5
Selenium	**0.0027**		0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 02:03	5
Thallium	**0.00016**	**I**	0.00050	0.000085	mg/L		07/09/19 09:00	09/06/19 05:16	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.000081**	**I**	0.00020	0.000070	mg/L		06/18/19 10:26	06/19/19 14:18	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**160**		5.0	3.4	mg/L			06/12/19 13:35	1
Chloride	**33**		2.0	1.4	mg/L			06/18/19 13:33	1
Fluoride	0.032	U	0.10	0.032	mg/L			06/12/19 13:39	1
Sulfate	**55**		10	2.8	mg/L			06/18/19 10:47	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.30**				SU			06/05/19 19:14	1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S
Date Collected: 06/07/19 17:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:31	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:06	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454169	08/26/19 22:12	AW	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 13:52	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444384	06/13/19 16:46	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	444984	06/19/19 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 14:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	444821	06/18/19 10:34	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/07/19 17:00	MCS	TAL PEN

Client Sample ID: PZ-200D
Date Collected: 06/07/19 10:37
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			447172	07/09/19 09:17	AW	TAL PEN
Dissolved	Analysis	6020		5	454169	08/26/19 23:29	AW	TAL PEN
Dissolved	Prep	3005A			447172	07/09/19 09:17	AW	TAL PEN
Dissolved	Analysis	6020		5	455989	09/08/19 16:13	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:35	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:17	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:13	AC	TAL PEN
Dissolved	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Dissolved	Analysis	7470A		1	445030	06/19/19 14:01	JAP	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:00	JAP	TAL PEN
Dissolved	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Dissolved	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1	445043	06/19/19 14:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 14:41	BAB	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/07/19 10:37	MCS	TAL PEN

Client Sample ID: GSA-2S
Date Collected: 06/05/19 09:05
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:39	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:23	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		50	454169	08/26/19 22:28	AW	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444190	06/12/19 13:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	444889	06/18/19 14:17	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 13:36	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	444821	06/18/19 10:31	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/05/19 09:05	MCS	TAL PEN

Client Sample ID: PZ-201D
Date Collected: 06/07/19 07:25
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:43	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:34	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:24	AC	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 14:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/07/19 07:25	MCS	TAL PEN

Client Sample ID: GE-1D
Date Collected: 06/07/19 13:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:47	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:39	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:29	AC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D
Date Collected: 06/07/19 13:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 14:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/07/19 13:07	MCS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 06/07/19 12:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:51	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:45	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:40	AC	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 15:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN

Client Sample ID: FB-01
Date Collected: 06/07/19 12:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:55	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:50	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:46	AC	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444384	06/13/19 16:46	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 15:13	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444821	06/18/19 10:15	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Client Sample ID: EB-01
Date Collected: 06/07/19 15:50
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 01:59	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 22:56	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:51	AC	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:24	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:16	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444382	06/13/19 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444984	06/19/19 07:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	445043	06/19/19 14:47	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	444865	06/18/19 12:19	RRC	TAL PEN

Client Sample ID: GE-4D
Date Collected: 06/05/19 19:14
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	447857	07/13/19 02:03	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454169	08/26/19 23:13	AW	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	454434	08/27/19 23:57	AC	TAL PEN
Total Recoverable	Prep	3005A			447169	07/09/19 09:00	AW	TAL PEN
Total Recoverable	Analysis	6020		5	455766	09/06/19 05:16	AW	TAL PEN
Total/NA	Prep	7470A			444819	06/18/19 10:26	JAP	TAL PEN
Total/NA	Analysis	7470A		1	445030	06/19/19 14:18	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	444190	06/12/19 13:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	444889	06/18/19 13:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	444194	06/12/19 13:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	444821	06/18/19 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	447474	06/05/19 19:14	MCS	TAL PEN

Laboratory References:
TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 444819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	7470A	
400-171344-2	PZ-200D	Dissolved	Water	7470A	
400-171344-2	PZ-200D	Total/NA	Water	7470A	
400-171344-3	GSA-2S	Total/NA	Water	7470A	
400-171344-4	PZ-201D	Total/NA	Water	7470A	
400-171344-5	GE-1D	Total/NA	Water	7470A	
400-171344-6	DUP-01	Total/NA	Water	7470A	
400-171344-7	FB-01	Total/NA	Water	7470A	
400-171344-8	EB-01	Total/NA	Water	7470A	
400-171344-9	GE-4D	Total/NA	Water	7470A	
MB 400-444819/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-444819/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-171344-B-1-B MS	400-171344-B-1-B MS	Dissolved	Water	7470A	
400-171344-B-1-C MSD	400-171344-B-1-C MSD	Dissolved	Water	7470A	

Analysis Batch: 445030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	7470A	444819
400-171344-2	PZ-200D	Dissolved	Water	7470A	444819
400-171344-2	PZ-200D	Total/NA	Water	7470A	444819
400-171344-3	GSA-2S	Total/NA	Water	7470A	444819
400-171344-4	PZ-201D	Total/NA	Water	7470A	444819
400-171344-5	GE-1D	Total/NA	Water	7470A	444819
400-171344-6	DUP-01	Total/NA	Water	7470A	444819
400-171344-7	FB-01	Total/NA	Water	7470A	444819
400-171344-8	EB-01	Total/NA	Water	7470A	444819
400-171344-9	GE-4D	Total/NA	Water	7470A	444819
MB 400-444819/14-A	Method Blank	Total/NA	Water	7470A	444819
LCS 400-444819/15-A	Lab Control Sample	Total/NA	Water	7470A	444819
400-171344-B-1-B MS	400-171344-B-1-B MS	Dissolved	Water	7470A	444819
400-171344-B-1-C MSD	400-171344-B-1-C MSD	Dissolved	Water	7470A	444819

Prep Batch: 447169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total Recoverable	Water	3005A	
400-171344-2	PZ-200D	Total Recoverable	Water	3005A	
400-171344-3	GSA-2S	Total Recoverable	Water	3005A	
400-171344-4	PZ-201D	Total Recoverable	Water	3005A	
400-171344-5	GE-1D	Total Recoverable	Water	3005A	
400-171344-6	DUP-01	Total Recoverable	Water	3005A	
400-171344-7	FB-01	Total Recoverable	Water	3005A	
400-171344-8	EB-01	Total Recoverable	Water	3005A	
400-171344-9	GE-4D	Total Recoverable	Water	3005A	
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-447169/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-447169/2-A ^10	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-447169/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-171308-C-3-C MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-171308-C-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Metals

Prep Batch: 447172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Dissolved	Water	3005A	
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-447172/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-447172/2-A ^10	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 447857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total Recoverable	Water	6020	447169
400-171344-2	PZ-200D	Total Recoverable	Water	6020	447169
400-171344-3	GSA-2S	Total Recoverable	Water	6020	447169
400-171344-4	PZ-201D	Total Recoverable	Water	6020	447169
400-171344-5	GE-1D	Total Recoverable	Water	6020	447169
400-171344-6	DUP-01	Total Recoverable	Water	6020	447169
400-171344-7	FB-01	Total Recoverable	Water	6020	447169
400-171344-8	EB-01	Total Recoverable	Water	6020	447169
400-171344-9	GE-4D	Total Recoverable	Water	6020	447169
MB 400-447169/1-A ^5	Method Blank	Total Recoverable	Water	6020	447169
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	6020	447169
400-171308-C-3-C MS ^5	Matrix Spike	Total Recoverable	Water	6020	447169
400-171308-C-3-D MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	447169

Analysis Batch: 454169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total Recoverable	Water	6020	447169
400-171344-1	PZ-200S	Total Recoverable	Water	6020	447169
400-171344-2	PZ-200D	Dissolved	Water	6020	447172
400-171344-2	PZ-200D	Total Recoverable	Water	6020	447169
400-171344-3	GSA-2S	Total Recoverable	Water	6020	447169
400-171344-3	GSA-2S	Total Recoverable	Water	6020	447169
400-171344-4	PZ-201D	Total Recoverable	Water	6020	447169
400-171344-5	GE-1D	Total Recoverable	Water	6020	447169
400-171344-6	DUP-01	Total Recoverable	Water	6020	447169
400-171344-7	FB-01	Total Recoverable	Water	6020	447169
400-171344-8	EB-01	Total Recoverable	Water	6020	447169
400-171344-9	GE-4D	Total Recoverable	Water	6020	447169
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 454434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Total Recoverable	Water	6020	447169
400-171344-4	PZ-201D	Total Recoverable	Water	6020	447169
400-171344-5	GE-1D	Total Recoverable	Water	6020	447169
400-171344-6	DUP-01	Total Recoverable	Water	6020	447169
400-171344-7	FB-01	Total Recoverable	Water	6020	447169
400-171344-8	EB-01	Total Recoverable	Water	6020	447169
400-171344-9	GE-4D	Total Recoverable	Water	6020	447169
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172

Metals (Continued)

Analysis Batch: 454434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 454608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 454897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172
LCS 400-447169/2-A	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 455360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172
LCS 400-447169/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A ^10	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 455766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-9	GE-4D	Total Recoverable	Water	6020	447169
MB 400-447169/1-A	Method Blank	Total Recoverable	Water	6020	447169
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172
LCS 400-447169/2-A ^10	Lab Control Sample	Total Recoverable	Water	6020	447169
LCS 400-447172/2-A ^10	Lab Control Sample	Total Recoverable	Water	6020	447172

Analysis Batch: 455989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Dissolved	Water	6020	447172
MB 400-447172/1-A	Method Blank	Total Recoverable	Water	6020	447172

General Chemistry

Analysis Batch: 444190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-3	GSA-2S	Total/NA	Water	SM 2540C	
400-171344-9	GE-4D	Total/NA	Water	SM 2540C	
MB 400-444190/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-444190/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171192-F-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 444194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-3	GSA-2S	Total/NA	Water	SM 4500 F C	
400-171344-9	GE-4D	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 444194 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-444194/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-444194/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-171046-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-171046-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
660-94993-A-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 444382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Dissolved	Water	SM 2540C	
400-171344-2	PZ-200D	Total/NA	Water	SM 2540C	
400-171344-4	PZ-201D	Total/NA	Water	SM 2540C	
400-171344-5	GE-1D	Total/NA	Water	SM 2540C	
400-171344-6	DUP-01	Total/NA	Water	SM 2540C	
400-171344-8	EB-01	Total/NA	Water	SM 2540C	
MB 400-444382/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-444382/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171310-A-7 DU	Duplicate	Total/NA	Water	SM 2540C	
400-171477-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 444384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	SM 2540C	
400-171344-7	FB-01	Total/NA	Water	SM 2540C	
MB 400-444384/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-444384/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-171254-A-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 444821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	SM 4500 SO4 E	
400-171344-2	PZ-200D	Dissolved	Water	SM 4500 SO4 E	
400-171344-2	PZ-200D	Total/NA	Water	SM 4500 SO4 E	
400-171344-3	GSA-2S	Total/NA	Water	SM 4500 SO4 E	
400-171344-4	PZ-201D	Total/NA	Water	SM 4500 SO4 E	
400-171344-5	GE-1D	Total/NA	Water	SM 4500 SO4 E	
400-171344-6	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-171344-7	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-171344-9	GE-4D	Total/NA	Water	SM 4500 SO4 E	
MB 400-444821/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444821/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444821/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-171344-3 MS	GSA-2S	Total/NA	Water	SM 4500 SO4 E	
400-171344-3 MSD	GSA-2S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-8	EB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-444865/18	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-444865/19	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-444865/15	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-171490-C-8 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 444865 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171490-C-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 444889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-3	GSA-2S	Total/NA	Water	SM 4500 Cl- E	
400-171344-9	GE-4D	Total/NA	Water	SM 4500 Cl- E	
MB 400-444889/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444889/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444889/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-171046-B-8 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-171046-B-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-171049-B-7 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-171049-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 444984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	SM 4500 Cl- E	
400-171344-2	PZ-200D	Dissolved	Water	SM 4500 Cl- E	
400-171344-2	PZ-200D	Total/NA	Water	SM 4500 Cl- E	
400-171344-4	PZ-201D	Total/NA	Water	SM 4500 Cl- E	
400-171344-5	GE-1D	Total/NA	Water	SM 4500 Cl- E	
400-171344-6	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-171344-7	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-171344-8	EB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-444984/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-444984/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-444984/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-171344-5 MS	GE-1D	Total/NA	Water	SM 4500 Cl- E	
400-171344-5 MSD	GE-1D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 445043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	SM 4500 F C	
400-171344-2	PZ-200D	Dissolved	Water	SM 4500 F C	
400-171344-2	PZ-200D	Total/NA	Water	SM 4500 F C	
400-171344-4	PZ-201D	Total/NA	Water	SM 4500 F C	
400-171344-5	GE-1D	Total/NA	Water	SM 4500 F C	
400-171344-6	DUP-01	Total/NA	Water	SM 4500 F C	
400-171344-7	FB-01	Total/NA	Water	SM 4500 F C	
400-171344-8	EB-01	Total/NA	Water	SM 4500 F C	
MB 400-445043/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-445043/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-171259-J-2 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-171259-J-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-171344-2 DU	PZ-200D	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 447474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 447474 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Total/NA	Water	Field Sampling	
400-171344-3	GSA-2S	Total/NA	Water	Field Sampling	
400-171344-4	PZ-201D	Total/NA	Water	Field Sampling	
400-171344-5	GE-1D	Total/NA	Water	Field Sampling	
400-171344-9	GE-4D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00110		0.00025	0.000092	mg/L		07/09/19 09:00	08/26/19 21:44	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	08/26/19 21:44	1
Boron	0.135		0.010	0.0042	mg/L		07/09/19 09:00	08/26/19 21:44	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/26/19 21:44	1
Calcium	0.0289	I	0.050	0.025	mg/L		07/09/19 09:00	08/26/19 21:44	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	08/26/19 21:44	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	08/26/19 21:44	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	08/26/19 21:44	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	08/26/19 21:44	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:00	08/26/19 21:44	1

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:00	08/27/19 22:45	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	08/27/19 22:45	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/27/19 22:45	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/09/19 09:00	08/27/19 22:45	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/27/19 22:45	1
Calcium	0.0262	I	0.050	0.025	mg/L		07/09/19 09:00	08/27/19 22:45	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	08/27/19 22:45	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	08/27/19 22:45	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	08/27/19 22:45	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	08/27/19 22:45	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:00	08/27/19 22:45	1

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:00	08/28/19 21:16	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	08/28/19 21:16	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/28/19 21:16	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/09/19 09:00	08/28/19 21:16	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/28/19 21:16	1
Calcium	0.025	U	0.050	0.025	mg/L		07/09/19 09:00	08/28/19 21:16	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	08/28/19 21:16	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	08/28/19 21:16	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	08/28/19 21:16	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	08/28/19 21:16	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:00	08/28/19 21:16	1

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

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 454897

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:00	08/29/19 20:41	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	08/29/19 20:41	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/29/19 20:41	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	08/29/19 20:41	1
Calcium	0.025	U	0.050	0.025	mg/L		07/09/19 09:00	08/29/19 20:41	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	08/29/19 20:41	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	08/29/19 20:41	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	08/29/19 20:41	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	08/29/19 20:41	1

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 455360

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:00	09/04/19 06:26	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	09/04/19 06:26	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	09/04/19 06:26	1
Boron	0.0042	U	0.010	0.0042	mg/L		07/09/19 09:00	09/04/19 06:26	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	09/04/19 06:26	1
Calcium	0.025	U	0.050	0.025	mg/L		07/09/19 09:00	09/04/19 06:26	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	09/04/19 06:26	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	09/04/19 06:26	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	09/04/19 06:26	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	09/04/19 06:26	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:00	09/04/19 06:26	1

Lab Sample ID: MB 400-447169/1-A
Matrix: Water
Analysis Batch: 455766

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:00	09/06/19 04:43	1
Barium	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:00	09/06/19 04:43	1
Beryllium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	09/06/19 04:43	1
Cadmium	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:00	09/06/19 04:43	1
Calcium	0.0300	I	0.050	0.025	mg/L		07/09/19 09:00	09/06/19 04:43	1
Cobalt	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:00	09/06/19 04:43	1
Lead	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:00	09/06/19 04:43	1
Selenium	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:00	09/06/19 04:43	1
Lithium	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:00	09/06/19 04:43	1
Thallium	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:00	09/06/19 04:43	1

Lab Sample ID: MB 400-447169/1-A ^5
Matrix: Water
Analysis Batch: 447857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 00:04	5

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

Lab Sample ID: MB 400-447169/1-A ^5
Matrix: Water
Analysis Batch: 447857

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00034	U	0.0025	0.00034	mg/L		07/09/19 09:00	07/13/19 00:04	5
Cobalt	0.00040	U	0.0025	0.00040	mg/L		07/09/19 09:00	07/13/19 00:04	5
Selenium	0.00071	U	0.0013	0.00071	mg/L		07/09/19 09:00	07/13/19 00:04	5
Lithium	0.0011	U	0.0050	0.0011	mg/L		07/09/19 09:00	07/13/19 00:04	5

Lab Sample ID: LCS 400-447169/2-A
Matrix: Water
Analysis Batch: 447857

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0498		mg/L		100	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Cobalt	0.0500	0.0541		mg/L		108	80 - 120
Selenium	0.0500	0.0548		mg/L		110	80 - 120
Lithium	0.0500	0.0531		mg/L		106	80 - 120

Lab Sample ID: LCS 400-447169/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0520		mg/L		104	80 - 120
Barium	0.0500	0.0500		mg/L		100	80 - 120
Beryllium	0.0500	0.0439		mg/L		88	80 - 120
Boron	0.100	0.197	J3	mg/L		197	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	1.00	1.10		mg/L		110	80 - 120
Cobalt	0.0500	0.0532		mg/L		106	80 - 120
Lead	0.0500	0.0499		mg/L		100	80 - 120
Selenium	0.0500	0.0535		mg/L		107	80 - 120
Lithium	0.0500	0.0493		mg/L		99	80 - 120
Thallium	0.0500	0.0483	L	mg/L		97	80 - 120

Lab Sample ID: LCS 400-447169/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0531		mg/L		106	80 - 120
Barium	0.0500	0.0491		mg/L		98	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Boron	0.100	0.0993		mg/L		99	80 - 120
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Calcium	1.00	1.03		mg/L		103	80 - 120
Cobalt	0.0500	0.0504		mg/L		101	80 - 120
Lead	0.0500	0.0508		mg/L		102	80 - 120
Selenium	0.0500	0.0521		mg/L		104	80 - 120
Lithium	0.0500	0.0532		mg/L		106	80 - 120
Thallium	0.0500	0.0532	L	mg/L		106	80 - 120

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

Lab Sample ID: LCS 400-447169/2-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.0500	0.0497		mg/L		99	80 - 120
Beryllium	0.0500	0.0495		mg/L		99	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	1.00	1.05		mg/L		105	80 - 120
Cobalt	0.0500	0.0518		mg/L		104	80 - 120
Lead	0.0500	0.0519		mg/L		104	80 - 120
Lithium	0.0500	0.0487		mg/L		97	80 - 120

Lab Sample ID: LCS 400-447169/2-A
Matrix: Water
Analysis Batch: 454897

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0543		mg/L		109	80 - 120
Barium	0.0500	0.0516		mg/L		103	80 - 120
Beryllium	0.0500	0.0467		mg/L		93	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	1.00	1.04		mg/L		104	80 - 120
Cobalt	0.0500	0.0525		mg/L		105	80 - 120
Lead	0.0500	0.0491		mg/L		98	80 - 120
Selenium	0.0500	0.0508		mg/L		102	80 - 120
Lithium	0.0500	0.0532		mg/L		106	80 - 120

Lab Sample ID: LCS 400-447169/2-A ^10
Matrix: Water
Analysis Batch: 455766

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0526		mg/L		105	80 - 120
Barium	0.0500	0.0546		mg/L		109	80 - 120
Beryllium	0.0500	0.0539		mg/L		108	80 - 120
Cadmium	0.0500	0.0539		mg/L		108	80 - 120
Lithium	0.0500	0.0468		mg/L		94	80 - 120
Thallium	0.0500	0.0502		mg/L		100	80 - 120

Lab Sample ID: LCS 400-447169/2-A ^5
Matrix: Water
Analysis Batch: 455360

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0556		mg/L		111	80 - 120
Beryllium	0.0500	0.0493		mg/L		99	80 - 120
Boron	0.100	0.0800		mg/L		80	80 - 120
Calcium	1.00	1.18		mg/L		118	80 - 120
Lead	0.0500	0.0592		mg/L		118	80 - 120
Selenium	0.0500	0.0529		mg/L		106	80 - 120
Lithium	0.0500	0.0494		mg/L		99	80 - 120

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

Lab Sample ID: 400-171308-C-3-C MS ^5
Matrix: Water
Analysis Batch: 447857

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00034	U	0.0500	0.0506		mg/L		101	75 - 125
Cadmium	0.00034	U	0.0500	0.0505		mg/L		101	75 - 125
Cobalt	0.00053	I	0.0500	0.0479		mg/L		95	75 - 125
Selenium	0.00071	U	0.0500	0.0555		mg/L		111	75 - 125
Lithium	0.0011	U	0.0500	0.0537		mg/L		107	75 - 125

Lab Sample ID: 400-171308-C-3-D MSD ^5
Matrix: Water
Analysis Batch: 447857

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 447169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00034	U	0.0500	0.0498		mg/L		100	75 - 125	2	20
Cadmium	0.00034	U	0.0500	0.0535		mg/L		107	75 - 125	6	20
Cobalt	0.00053	I	0.0500	0.0475		mg/L		94	75 - 125	1	20
Selenium	0.00071	U	0.0500	0.0554		mg/L		111	75 - 125	0	20
Lithium	0.0011	U	0.0500	0.0524		mg/L		105	75 - 125	2	20

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	08/26/19 23:18	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	08/26/19 23:18	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/26/19 23:18	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/26/19 23:18	1
Calcium, Dissolved	0.0321	I	0.050	0.025	mg/L		07/09/19 09:17	08/26/19 23:18	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	08/26/19 23:18	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	08/26/19 23:18	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	08/26/19 23:18	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	08/26/19 23:18	1
Thallium, Dissolved	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:17	08/26/19 23:18	1

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	08/28/19 00:02	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	08/28/19 00:02	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/28/19 00:02	1
Boron, Dissolved	0.00625	I	0.010	0.0042	mg/L		07/09/19 09:17	08/28/19 00:02	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/28/19 00:02	1
Calcium, Dissolved	0.0299	I	0.050	0.025	mg/L		07/09/19 09:17	08/28/19 00:02	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	08/28/19 00:02	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	08/28/19 00:02	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	08/28/19 00:02	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	08/28/19 00:02	1
Thallium, Dissolved	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:17	08/28/19 00:02	1

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

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	08/28/19 21:32	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	08/28/19 21:32	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/28/19 21:32	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/28/19 21:32	1
Calcium, Dissolved	0.025	U	0.050	0.025	mg/L		07/09/19 09:17	08/28/19 21:32	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	08/28/19 21:32	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	08/28/19 21:32	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	08/28/19 21:32	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	08/28/19 21:32	1

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 454897

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	08/29/19 21:14	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	08/29/19 21:14	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/29/19 21:14	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	08/29/19 21:14	1
Calcium, Dissolved	0.0281	I	0.050	0.025	mg/L		07/09/19 09:17	08/29/19 21:14	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	08/29/19 21:14	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	08/29/19 21:14	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	08/29/19 21:14	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	08/29/19 21:14	1

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 455360

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000136	I	0.00025	0.000092	mg/L		07/09/19 09:17	09/04/19 06:48	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	09/04/19 06:48	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/04/19 06:48	1
Boron, Dissolved	0.00509	I	0.010	0.0042	mg/L		07/09/19 09:17	09/04/19 06:48	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/04/19 06:48	1
Calcium, Dissolved	0.025	U	0.050	0.025	mg/L		07/09/19 09:17	09/04/19 06:48	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	09/04/19 06:48	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	09/04/19 06:48	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	09/04/19 06:48	1
Lithium, Dissolved	0.000239	I	0.0010	0.00022	mg/L		07/09/19 09:17	09/04/19 06:48	1

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 455766

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	09/06/19 05:22	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	09/06/19 05:22	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/06/19 05:22	1

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

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 455766

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/06/19 05:22	1
Calcium, Dissolved	0.0388	I	0.050	0.025	mg/L		07/09/19 09:17	09/06/19 05:22	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	09/06/19 05:22	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	09/06/19 05:22	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	09/06/19 05:22	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	09/06/19 05:22	1
Thallium, Dissolved	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:17	09/06/19 05:22	1

Lab Sample ID: MB 400-447172/1-A
Matrix: Water
Analysis Batch: 455989

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000092	U	0.00025	0.000092	mg/L		07/09/19 09:17	09/08/19 16:02	1
Barium, Dissolved	0.000098	U	0.00050	0.000098	mg/L		07/09/19 09:17	09/08/19 16:02	1
Beryllium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/08/19 16:02	1
Boron, Dissolved	0.0042	U	0.010	0.0042	mg/L		07/09/19 09:17	09/08/19 16:02	1
Cadmium, Dissolved	0.000068	U	0.00050	0.000068	mg/L		07/09/19 09:17	09/08/19 16:02	1
Calcium, Dissolved	0.025	U	0.050	0.025	mg/L		07/09/19 09:17	09/08/19 16:02	1
Cobalt, Dissolved	0.000080	U	0.00050	0.000080	mg/L		07/09/19 09:17	09/08/19 16:02	1
Lead, Dissolved	0.000070	U	0.00025	0.000070	mg/L		07/09/19 09:17	09/08/19 16:02	1
Selenium, Dissolved	0.00014	U	0.00025	0.00014	mg/L		07/09/19 09:17	09/08/19 16:02	1
Lithium, Dissolved	0.00022	U	0.0010	0.00022	mg/L		07/09/19 09:17	09/08/19 16:02	1
Thallium, Dissolved	0.000017	U	0.00010	0.000017	mg/L		07/09/19 09:17	09/08/19 16:02	1

Lab Sample ID: LCS 400-447172/2-A
Matrix: Water
Analysis Batch: 454169

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0483		mg/L		97	80 - 120
Barium, Dissolved	0.0500	0.0463		mg/L		93	80 - 120
Beryllium, Dissolved	0.0500	0.0466		mg/L		93	80 - 120
Cadmium, Dissolved	0.0500	0.0463		mg/L		93	80 - 120
Calcium, Dissolved	1.00	1.01		mg/L		101	80 - 120
Cobalt, Dissolved	0.0500	0.0495		mg/L		99	80 - 120
Lead, Dissolved	0.0500	0.0511		mg/L		102	80 - 120
Selenium, Dissolved	0.0500	0.0563		mg/L		113	80 - 120
Lithium, Dissolved	0.0500	0.0520		mg/L		104	80 - 120
Thallium, Dissolved	0.0500	0.0477	L	mg/L		95	80 - 120

Lab Sample ID: LCS 400-447172/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0525		mg/L		105	80 - 120
Barium, Dissolved	0.0500	0.0475		mg/L		95	80 - 120
Beryllium, Dissolved	0.0500	0.0517		mg/L		103	80 - 120

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

Lab Sample ID: LCS 400-447172/2-A
Matrix: Water
Analysis Batch: 454434

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron, Dissolved	0.100	0.104		mg/L		104	80 - 120
Cadmium, Dissolved	0.0500	0.0485		mg/L		97	80 - 120
Calcium, Dissolved	1.00	1.05		mg/L		105	80 - 120
Cobalt, Dissolved	0.0500	0.0501		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0515		mg/L		103	80 - 120
Selenium, Dissolved	0.0500	0.0539		mg/L		108	80 - 120
Lithium, Dissolved	0.0500	0.0544		mg/L		109	80 - 120
Thallium, Dissolved	0.0500	0.0529	L	mg/L		106	80 - 120

Lab Sample ID: LCS 400-447172/2-A
Matrix: Water
Analysis Batch: 454608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium, Dissolved	0.0500	0.0504		mg/L		101	80 - 120
Beryllium, Dissolved	0.0500	0.0510		mg/L		102	80 - 120
Cadmium, Dissolved	0.0500	0.0512		mg/L		102	80 - 120
Calcium, Dissolved	1.00	1.06		mg/L		106	80 - 120
Cobalt, Dissolved	0.0500	0.0521		mg/L		104	80 - 120
Lead, Dissolved	0.0500	0.0519		mg/L		104	80 - 120
Lithium, Dissolved	0.0500	0.0504		mg/L		101	80 - 120

Lab Sample ID: LCS 400-447172/2-A
Matrix: Water
Analysis Batch: 454897

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0538		mg/L		108	80 - 120
Barium, Dissolved	0.0500	0.0514		mg/L		103	80 - 120
Beryllium, Dissolved	0.0500	0.0486		mg/L		97	80 - 120
Cadmium, Dissolved	0.0500	0.0504		mg/L		101	80 - 120
Calcium, Dissolved	1.00	1.06		mg/L		106	80 - 120
Cobalt, Dissolved	0.0500	0.0519		mg/L		104	80 - 120
Lead, Dissolved	0.0500	0.0507		mg/L		101	80 - 120
Selenium, Dissolved	0.0500	0.0525		mg/L		105	80 - 120
Lithium, Dissolved	0.0500	0.0546		mg/L		109	80 - 120

Lab Sample ID: LCS 400-447172/2-A ^10
Matrix: Water
Analysis Batch: 455360

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0539		mg/L		108	80 - 120
Beryllium, Dissolved	0.0500	0.0477		mg/L		95	80 - 120
Calcium, Dissolved	1.00	1.17		mg/L		117	80 - 120
Cobalt, Dissolved	0.0500	0.0599		mg/L		120	80 - 120
Lead, Dissolved	0.0500	0.0580		mg/L		116	80 - 120
Selenium, Dissolved	0.0500	0.0512		mg/L		102	80 - 120
Lithium, Dissolved	0.0500	0.0497		mg/L		99	80 - 120

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

Lab Sample ID: LCS 400-447172/2-A ^10
Matrix: Water
Analysis Batch: 455766

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 447172

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic, Dissolved			0.0500	0.0514		mg/L		103	80 - 120		
Barium, Dissolved			0.0500	0.0538		mg/L		108	80 - 120		
Beryllium, Dissolved			0.0500	0.0520		mg/L		104	80 - 120		
Cadmium, Dissolved			0.0500	0.0530		mg/L		106	80 - 120		
Selenium, Dissolved			0.0500	0.0522		mg/L		104	80 - 120		
Lithium, Dissolved			0.0500	0.0473		mg/L		95	80 - 120		
Thallium, Dissolved			0.0500	0.0472		mg/L		94	80 - 120		

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-444819/14-A
Matrix: Water
Analysis Batch: 445030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 444819

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 13:48	1
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		06/18/19 10:24	06/19/19 13:48	1

Lab Sample ID: LCS 400-444819/15-A
Matrix: Water
Analysis Batch: 445030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 444819

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00101	0.000974		mg/L		97	80 - 120		
Mercury, Dissolved			0.00101	0.000974		mg/L		97	80 - 120		

Lab Sample ID: 400-171344-B-1-B MS
Matrix: Water
Analysis Batch: 445030

Client Sample ID: 400-171344-B-1-B MS
Prep Type: Dissolved
Prep Batch: 444819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	-0.000000200		0.00201	0.00188		mg/L		93	80 - 120		
Mercury, Dissolved	-0.000000200		0.00201	0.00188		mg/L		93	80 - 120		

Lab Sample ID: 400-171344-B-1-C MSD
Matrix: Water
Analysis Batch: 445030

Client Sample ID: 400-171344-B-1-C MSD
Prep Type: Dissolved
Prep Batch: 444819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	-0.000000200		0.00201	0.00185		mg/L		92	80 - 120	2	20
Mercury, Dissolved	-0.000000200		0.00201	0.00185		mg/L		92	80 - 120	2	20

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

Lab Sample ID: MB 400-444190/1
Matrix: Water
Analysis Batch: 444190

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/12/19 13:35	1

Lab Sample ID: LCS 400-444190/2
Matrix: Water
Analysis Batch: 444190

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	258		mg/L		88	78 - 122

Lab Sample ID: 400-171192-F-5 DU
Matrix: Water
Analysis Batch: 444190

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	240		244		mg/L		2	5

Lab Sample ID: MB 400-444382/1
Matrix: Water
Analysis Batch: 444382

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/13/19 16:26	1
Total Dissolved Solids Field Filtered	3.4	U	5.0	3.4	mg/L			06/13/19 16:26	1

Lab Sample ID: LCS 400-444382/2
Matrix: Water
Analysis Batch: 444382

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	354		mg/L		121	78 - 122
Total Dissolved Solids Field Filtered	293	354		mg/L		121	78 - 122

Lab Sample ID: 400-171310-A-7 DU
Matrix: Water
Analysis Batch: 444382

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	78		78.0		mg/L		0	5
Total Dissolved Solids Field Filtered	78		78.0		mg/L		0	5

Lab Sample ID: 400-171477-A-1 DU
Matrix: Water
Analysis Batch: 444382

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	930		948		mg/L		2	5

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

Lab Sample ID: MB 400-444384/1
Matrix: Water
Analysis Batch: 444384

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			06/13/19 16:46	1

Lab Sample ID: LCS 400-444384/2
Matrix: Water
Analysis Batch: 444384

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	312		mg/L		106	78 - 122

Lab Sample ID: 400-171254-A-7 DU
Matrix: Water
Analysis Batch: 444384

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	300		292		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-444889/6
Matrix: Water
Analysis Batch: 444889

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/18/19 13:23	1

Lab Sample ID: LCS 400-444889/7
Matrix: Water
Analysis Batch: 444889

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.1		mg/L		104	90 - 110

Lab Sample ID: MRL 400-444889/3
Matrix: Water
Analysis Batch: 444889

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.35	I	mg/L		67	50 - 150

Lab Sample ID: 400-171046-B-8 MS
Matrix: Water
Analysis Batch: 444889

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100		10.0	106	J3	mg/L		65	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-171046-B-8 MSD
Matrix: Water
Analysis Batch: 444889

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		10.0	104	J3	mg/L		43	73 - 120	2	8

Lab Sample ID: 400-171049-B-7 MS
Matrix: Water
Analysis Batch: 444889

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	91		10.0	98.9		mg/L		78	73 - 120

Lab Sample ID: 400-171049-B-7 MSD
Matrix: Water
Analysis Batch: 444889

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	91		10.0	98.6		mg/L		74	73 - 120	0	8

Lab Sample ID: MB 400-444984/6
Matrix: Water
Analysis Batch: 444984

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			06/19/19 07:35	1
Chloride, Dissolved	1.4	U	2.0	1.4	mg/L			06/19/19 07:35	1

Lab Sample ID: LCS 400-444984/7
Matrix: Water
Analysis Batch: 444984

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.2		mg/L		104	90 - 110
Chloride, Dissolved	30.0	31.2		mg/L		104	90 - 110

Lab Sample ID: MRL 400-444984/3
Matrix: Water
Analysis Batch: 444984

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.73	I	mg/L		86	50 - 150
Chloride, Dissolved	2.00	1.73	I	mg/L		86	50 - 150

Lab Sample ID: 400-171344-5 MS
Matrix: Water
Analysis Batch: 444984

Client Sample ID: GE-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	27		10.0	36.2		mg/L		91	73 - 120
Chloride, Dissolved	27		10.0	36.2		mg/L		91	73 - 120

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-171344-5 MSD
Matrix: Water
Analysis Batch: 444984

Client Sample ID: GE-1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	27		10.0	35.8		mg/L		87	73 - 120	1	8
Chloride, Dissolved	27		10.0	35.8		mg/L		87	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-444194/3
Matrix: Water
Analysis Batch: 444194

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/12/19 12:24	1

Lab Sample ID: LCS 400-444194/4
Matrix: Water
Analysis Batch: 444194

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.75		mg/L		94	90 - 110

Lab Sample ID: 400-171046-B-3 MS
Matrix: Water
Analysis Batch: 444194

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	I	1.00	1.02		mg/L		98	75 - 125

Lab Sample ID: 400-171046-B-3 MSD
Matrix: Water
Analysis Batch: 444194

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	I	1.00	1.02		mg/L		98	75 - 125	0	4

Lab Sample ID: 660-94993-A-1 DU
Matrix: Water
Analysis Batch: 444194

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	1.5		1.47		mg/L		0	4

Lab Sample ID: MB 400-445043/3
Matrix: Water
Analysis Batch: 445043

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			06/19/19 14:16	1
Fluoride, Dissolved	0.032	U	0.10	0.032	mg/L			06/19/19 14:16	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-445043/4
Matrix: Water
Analysis Batch: 445043

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			4.00	3.68		mg/L		92	90 - 110		
Fluoride, Dissolved			4.00	3.68		mg/L		92	90 - 110		

Lab Sample ID: 400-171259-J-2 MS
Matrix: Water
Analysis Batch: 445043

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.23		1.00	1.21		mg/L		98	75 - 125		
Fluoride, Dissolved	0.23		1.00	1.21		mg/L		98	75 - 125		

Lab Sample ID: 400-171259-J-2 MSD
Matrix: Water
Analysis Batch: 445043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.23		1.00	1.21		mg/L		98	75 - 125	0	4
Fluoride, Dissolved	0.23		1.00	1.21		mg/L		98	75 - 125	0	4

Lab Sample ID: 400-171344-2 DU
Matrix: Water
Analysis Batch: 445043

Client Sample ID: PZ-200D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fluoride	0.080	I		0.0800	I	mg/L				0	4
Fluoride	0.080	I		0.0800	I	mg/L				0	4
Fluoride, Dissolved	0.080	I		0.0800	I	mg/L				0	4
Fluoride, Dissolved	0.080	I		0.0800	I	mg/L				0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-444821/6
Matrix: Water
Analysis Batch: 444821

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 10:04	1
Sulfate, Dissolved	1.4	U	5.0	1.4	mg/L			06/18/19 10:04	1

Lab Sample ID: LCS 400-444821/7
Matrix: Water
Analysis Batch: 444821

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	16.0		mg/L		106	90 - 110		
Sulfate, Dissolved			15.0	16.0		mg/L		106	90 - 110		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-444821/3
Matrix: Water
Analysis Batch: 444821

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.58	I	mg/L		92	50 - 150		
Sulfate, Dissolved			5.00	4.58	I	mg/L		92	50 - 150		

Lab Sample ID: 400-171344-3 MS
Matrix: Water
Analysis Batch: 444821

Client Sample ID: GSA-2S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	46		10.0	54.3		mg/L		85	77 - 128		
Sulfate, Dissolved	46		10.0	54.3		mg/L		85	77 - 128		

Lab Sample ID: 400-171344-3 MSD
Matrix: Water
Analysis Batch: 444821

Client Sample ID: GSA-2S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	46		10.0	54.1		mg/L		82	77 - 128	0	5
Sulfate, Dissolved	46		10.0	54.1		mg/L		82	77 - 128	0	5

Lab Sample ID: MB 400-444865/18
Matrix: Water
Analysis Batch: 444865

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			06/18/19 12:22	1

Lab Sample ID: LCS 400-444865/19
Matrix: Water
Analysis Batch: 444865

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.5		mg/L		103	90 - 110		

Lab Sample ID: MRL 400-444865/15
Matrix: Water
Analysis Batch: 444865

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.10		mg/L		102	50 - 150		

Lab Sample ID: 400-171490-C-8 MS
Matrix: Water
Analysis Batch: 444865

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	13		10.0	23.3		mg/L		102	77 - 128		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-171490-C-8 MSD
Matrix: Water
Analysis Batch: 444865

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	23.4		mg/L		103	77 - 128	0	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

400-171344 COC

Client Information	Sampler: Rick Hagendorfer / Brett Surles	Lab PM: Whitmire, Cheyenne R	Carrier Tr	COC No: 400-84581-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Dissolved 9315 Ra226 9320 Ra228 Ra226Ra228 GFPC	Chloride, Sulfate, TDS, Fluoride	6020 - As, Ba, Be, Cd, Co, Pb, Li, Se, Tl	7470A - Mercury Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N						
PZ-200S	6-7-19	1700	G	Water			X	X	X	X						
PZ-200D	6/7/19	1037	G	Water			X	X	X	X	X	X	X	X		
GSA-2S	6/5/19	0905	G	Water			X	X	X	X						
PZ-201D	6/7/19	0725	G	Water			X	X	X	X						
GE-1D	6/7/19	1307	G	Water			X	X	X	X						
DUP-01	6/7/19	1207	G	W			X	X	X							
FB-01	6/7/19	1200	G	W			X	X	X							
EB-01	6-7-19	1550	G	W			X	X	X							
GE-4d	6/5/19	1914	G	W			X	X	X	X						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6-8-19 1105	RDH Env		6/8/19 1105	TA Pen
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.5°, 0.9° IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171344-1
SDG Number: GSA Delineation Sampling

Login Number: 171344
List Number: 1
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C 0.9°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-171344-1
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State Program	88-0689	09-01-20
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State Program	233	09-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State Program	9810	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
Washington	State Program	C915	05-15-20
West Virginia DEP	State Program	136	09-30-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-171344-2
Client Project/Site: CCR Plant Crist GSA Delineation Sampling

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne Whitmire

Authorized for release by:
7/30/2019 5:56:42 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-171344-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-171344-2

RAD

Method(s) 9315: Ra-228 Prep Batch 160-431725. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-171344-1), PZ-200D (400-171344-2), (LCS 160-431725/1-A), (LCSD 160-431725/2-A) and (MB 160-431725/23-A)

Method(s) 9315: Ra-226 Prep Batch 160-431902. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-171344-2), GSA-2S (400-171344-3), PZ-201D (400-171344-4), GE-1D (400-171344-5), DUP-01 (400-171344-6), FB-01 (400-171344-7), EB-01 (400-171344-8), GE-4D (400-171344-9), (LCS 160-431902/1-A), (LCSD 160-431902/2-A) and (MB 160-431902/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431732. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-171344-1), PZ-200D (400-171344-2), (LCS 160-431732/1-A), (LCSD 160-431732/2-A) and (MB 160-431732/23-A)

Method(s) 9320: Ra-228 Prep Batch 160-431904. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-171344-2), GSA-2S (400-171344-3), PZ-201D (400-171344-4), GE-1D (400-171344-5), DUP-01 (400-171344-6), FB-01 (400-171344-7), EB-01 (400-171344-8), GE-4D (400-171344-9), (LCS 160-431904/1-A), (LCSD 160-431904/2-A) and (MB 160-431904/23-A)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431732: Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200S (400-171344-1) and PZ-200D (400-171344-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431904: The following samples were prepared at a reduced aliquot due to yellow discoloration: PZ-200D (400-171344-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision

Method(s) PrecSep_0: Radium 228 Prep Batch 160-431904: Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200D (400-171344-2), GSA-2S (400-171344-3), PZ-201D (400-171344-4), GE-1D (400-171344-5), DUP-01 (400-171344-6), FB-01 (400-171344-7), EB-01 (400-171344-8) and GE-4D (400-171344-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431725: Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200S (400-171344-1) and PZ-200D (400-171344-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431902: The following samples were prepared at a reduced aliquot due to yellow discoloration: PZ-200D (400-171344-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision

Method(s) PrecSep-21: Radium 226 Prep Batch 160-431902: Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200D (400-171344-2), GSA-2S (400-171344-3), PZ-201D (400-171344-4), GE-1D (400-171344-5), DUP-01 (400-171344-6), FB-01 (400-171344-7), EB-01 (400-171344-8) and GE-4D (400-171344-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-171344-1	PZ-200S	Water	06/07/19 17:00	06/08/19 11:05	
400-171344-2	PZ-200D	Water	06/07/19 10:37	06/08/19 11:05	
400-171344-3	GSA-2S	Water	06/05/19 09:05	06/08/19 11:05	
400-171344-4	PZ-201D	Water	06/07/19 07:25	06/08/19 11:05	
400-171344-5	GE-1D	Water	06/07/19 13:07	06/08/19 11:05	
400-171344-6	DUP-01	Water	06/07/19 12:07	06/08/19 11:05	
400-171344-7	FB-01	Water	06/07/19 12:00	06/08/19 11:05	
400-171344-8	EB-01	Water	06/07/19 15:50	06/08/19 11:05	
400-171344-9	GE-4D	Water	06/05/19 19:14	06/08/19 11:05	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: PZ-200S

Date Collected: 06/07/19 17:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.54		0.261	0.346	1.00	0.0764	pCi/L	06/14/19 08:47	07/26/19 16:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*06/14/19 08:47*	*07/26/19 16:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.78		0.504	0.613	1.00	0.477	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.2*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*83.7*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.32		0.568	0.704	5.00	0.477	pCi/L		07/29/19 07:56	1

Client Sample ID: PZ-200D
Date Collected: 06/07/19 10:37
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-2
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.240**		0.125	0.127	1.00	0.141	pCi/L	06/17/19 15:40	07/26/19 17:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*61.0*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:53*	*1*

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0844	U	0.0646	0.0651	1.00	0.0940	pCi/L	06/14/19 08:47	07/26/19 16:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 08:47*	*07/26/19 16:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0324	U	0.464	0.464	1.00	0.827	pCi/L	06/17/19 16:18	07/08/19 09:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*61.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*
Y Carrier	*86.4*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.398**		0.236	0.239	1.00	0.357	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*
Y Carrier	*88.6*		*40 - 110*	*06/14/19 09:44*	*07/09/19 09:05*	*1*

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.482**		0.245	0.248	5.00	0.357	pCi/L		07/29/19 08:00	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.273	U	0.481	0.481	5.00	0.827	pCi/L		07/30/19 08:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: GSA-2S

Date Collected: 06/05/19 09:05
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.96		0.278	0.385	1.00	0.0983	pCi/L	06/17/19 15:40	07/26/19 17:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.19		0.437	0.526	1.00	0.384	pCi/L	06/17/19 16:18	07/08/19 09:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*
Y Carrier	*85.6*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.14		0.518	0.652	5.00	0.384	pCi/L		07/30/19 08:00	1

Client Sample ID: PZ-201D
Lab Sample ID: 400-171344-4

Date Collected: 06/07/19 07:25
Matrix: Water

Date Received: 06/08/19 11:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.163		0.0901	0.0913	1.00	0.117	pCi/L	06/17/19 15:40	07/26/19 17:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.5*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00834	U	0.274	0.274	1.00	0.491	pCi/L	06/17/19 16:18	07/08/19 09:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.5*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*
Y Carrier	*83.7*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:29*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.171	U	0.288	0.289	5.00	0.491	pCi/L		07/30/19 08:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: GE-1D

Date Collected: 06/07/19 13:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162		0.0751	0.0765	1.00	0.0831	pCi/L	06/17/19 15:40	07/26/19 17:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:53*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.475		0.287	0.290	1.00	0.441	pCi/L	06/17/19 16:18	07/08/19 09:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:30*	*1*
Y Carrier	*89.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.637		0.297	0.300	5.00	0.441	pCi/L		07/30/19 08:00	1

Client Sample ID: DUP-01
Date Collected: 06/07/19 12:07
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.277		0.107	0.110	1.00	0.114	pCi/L	06/17/19 15:40	07/26/19 17:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.582		0.260	0.265	1.00	0.366	pCi/L	06/17/19 16:18	07/08/19 09:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:30*	*1*
Y Carrier	*89.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.859		0.281	0.287	5.00	0.366	pCi/L		07/30/19 08:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: FB-01

Date Collected: 06/07/19 12:00
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0525	U	0.0610	0.0612	1.00	0.0989	pCi/L	06/17/19 15:40	07/26/19 17:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*06/17/19 15:40*	*07/26/19 17:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.115	U	0.217	0.217	1.00	0.409	pCi/L	06/17/19 16:18	07/08/19 09:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*
Y Carrier	*89.7*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0627	U	0.225	0.225	5.00	0.409	pCi/L		07/30/19 08:00	1

Client Sample ID: EB-01
Lab Sample ID: 400-171344-8

Date Collected: 06/07/19 15:50
Matrix: Water

Date Received: 06/08/19 11:05

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0368	U	0.0473	0.0474	1.00	0.0785	pCi/L	06/17/19 15:40	07/26/19 18:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/17/19 15:40*	*07/26/19 18:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.216	U	0.199	0.200	1.00	0.393	pCi/L	06/17/19 16:18	07/08/19 09:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*
Y Carrier	*88.2*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.179	U	0.205	0.206	5.00	0.393	pCi/L		07/30/19 08:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: GE-4D

Date Collected: 06/05/19 19:14
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.19		0.235	0.307	1.00	0.0871	pCi/L	06/17/19 15:40	07/26/19 18:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/17/19 15:40*	*07/26/19 18:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.01		0.430	0.512	1.00	0.382	pCi/L	06/17/19 16:18	07/08/19 09:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*
Y Carrier	*85.2*		*40 - 110*	*06/17/19 16:18*	*07/08/19 09:31*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.19		0.490	0.597	5.00	0.382	pCi/L		07/30/19 08:00	1

Definitions/Glossary

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Client Sample ID: PZ-200S
Lab Sample ID: 400-171344-1
Date Collected: 06/07/19 17:00
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 16:01	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Total/NA	Analysis	9320		1	434306	07/09/19 09:05	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436802	07/29/19 07:56	SMP	TAL SL

Client Sample ID: PZ-200D
Lab Sample ID: 400-171344-2
Date Collected: 06/07/19 10:37
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			431725	06/14/19 08:47	KAW	TAL SL
Dissolved	Analysis	9315		1	436543	07/26/19 16:02	CDR	TAL SL
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 17:53	CDR	TAL SL
Dissolved	Prep	PrecSep_0			431732	06/14/19 09:44	KAW	TAL SL
Dissolved	Analysis	9320		1	434306	07/09/19 09:05	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	436803	07/29/19 08:00	SMP	TAL SL

Client Sample ID: GSA-2S
Lab Sample ID: 400-171344-3
Date Collected: 06/05/19 09:05
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 17:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: PZ-201D
Lab Sample ID: 400-171344-4
Date Collected: 06/07/19 07:25
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 17:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Client Sample ID: GE-1D
Lab Sample ID: 400-171344-5
Date Collected: 06/07/19 13:07
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436543	07/26/19 17:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: DUP-01
Lab Sample ID: 400-171344-6
Date Collected: 06/07/19 12:07
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 17:55	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: FB-01
Lab Sample ID: 400-171344-7
Date Collected: 06/07/19 12:00
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 17:55	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Client Sample ID: EB-01
Lab Sample ID: 400-171344-8
Date Collected: 06/07/19 15:50
Matrix: Water
Date Received: 06/08/19 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 18:31	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist GSA Delineation Sampling

Job ID: 400-171344-2

Client Sample ID: GE-4D

Date Collected: 06/05/19 19:14
Date Received: 06/08/19 11:05

Lab Sample ID: 400-171344-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			431902	06/17/19 15:40	ORM	TAL SL
Total/NA	Analysis	9315		1	436763	07/26/19 18:31	CDR	TAL SL
Total/NA	Prep	PrecSep_0			431904	06/17/19 16:18	ORM	TAL SL
Total/NA	Analysis	9320		1	434008	07/08/19 09:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	436888	07/30/19 08:00	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 431725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	PrecSep-21	
400-171344-2	PZ-200D	Dissolved	Water	PrecSep-21	
MB 160-431725/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431725/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-431725/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 431732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-1	PZ-200S	Total/NA	Water	PrecSep_0	
400-171344-2	PZ-200D	Dissolved	Water	PrecSep_0	
MB 160-431732/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431732/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-431732/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 431902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Total/NA	Water	PrecSep-21	
400-171344-3	GSA-2S	Total/NA	Water	PrecSep-21	
400-171344-4	PZ-201D	Total/NA	Water	PrecSep-21	
400-171344-5	GE-1D	Total/NA	Water	PrecSep-21	
400-171344-6	DUP-01	Total/NA	Water	PrecSep-21	
400-171344-7	FB-01	Total/NA	Water	PrecSep-21	
400-171344-8	EB-01	Total/NA	Water	PrecSep-21	
400-171344-9	GE-4D	Total/NA	Water	PrecSep-21	
MB 160-431902/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-431902/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-431902/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 431904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-171344-2	PZ-200D	Total/NA	Water	PrecSep_0	
400-171344-3	GSA-2S	Total/NA	Water	PrecSep_0	
400-171344-4	PZ-201D	Total/NA	Water	PrecSep_0	
400-171344-5	GE-1D	Total/NA	Water	PrecSep_0	
400-171344-6	DUP-01	Total/NA	Water	PrecSep_0	
400-171344-7	FB-01	Total/NA	Water	PrecSep_0	
400-171344-8	EB-01	Total/NA	Water	PrecSep_0	
400-171344-9	GE-4D	Total/NA	Water	PrecSep_0	
MB 160-431904/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-431904/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-431904/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-431725/23-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431725

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02997	U	0.0394	0.0395	1.00	0.0970	pCi/L	06/14/19 08:47	07/26/19 16:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*06/14/19 08:47*	*07/26/19 16:02*	*1*

Lab Sample ID: LCS 160-431725/1-A
Matrix: Water
Analysis Batch: 436343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431725

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.718		0.912	1.00	0.0714	pCi/L	77	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*

Lab Sample ID: LCSD 160-431725/2-A
Matrix: Water
Analysis Batch: 436343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431725

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.129		0.948	1.00	0.0940	pCi/L	80	75 - 125	0.22	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*102*		*40 - 110*

Lab Sample ID: MB 160-431902/23-A
Matrix: Water
Analysis Batch: 436835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431902

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0005976	U	0.0397	0.0397	1.00	0.0835	pCi/L	06/17/19 15:40	07/29/19 14:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/17/19 15:40*	*07/29/19 14:28*	*1*

Lab Sample ID: LCS 160-431902/1-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431902

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.929		0.934	1.00	0.0826	pCi/L	79	75 - 125		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-431902/1-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431902

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.6		40 - 110

Lab Sample ID: LCSD 160-431902/2-A
Matrix: Water
Analysis Batch: 436763

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431902

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.4	9.891		1.04	1.00	0.111	pCi/L	87	75 - 125	0.49	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	91.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-431732/23-A
Matrix: Water
Analysis Batch: 434306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431732

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2411	U	0.200	0.202	1.00	0.318	pCi/L	06/14/19 09:44	07/09/19 09:05	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	06/14/19 09:44	07/09/19 09:05	1
Y Carrier	95.0		40 - 110	06/14/19 09:44	07/09/19 09:05	1

Lab Sample ID: LCS 160-431732/1-A
Matrix: Water
Analysis Batch: 434300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431732

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.04	8.986		1.04	1.00	0.335	pCi/L	99	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	100		40 - 110
Y Carrier	87.5		40 - 110

Lab Sample ID: LCSD 160-431732/2-A
Matrix: Water
Analysis Batch: 434300

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431732

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.04	8.507		0.987	1.00	0.339	pCi/L	94	75 - 125	0.24	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-431732/2-A
Matrix: Water
Analysis Batch: 434300

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431732

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: MB 160-431904/23-A
Matrix: Water
Analysis Batch: 434009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 431904

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.006475	U	0.220	0.220	1.00	0.394	pCi/L	06/17/19 16:18	07/08/19 09:39	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110	06/17/19 16:18	07/08/19 09:39	1
Y Carrier	86.7		40 - 110	06/17/19 16:18	07/08/19 09:39	1

Lab Sample ID: LCS 160-431904/1-A
Matrix: Water
Analysis Batch: 434008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 431904

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.04	8.944		1.09	1.00	0.468	pCi/L	99	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: LCSD 160-431904/2-A
Matrix: Water
Analysis Batch: 434008

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 431904

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.04	9.102		1.09	1.00	0.427	pCi/L	101	75 - 125	0.07	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	91.8		40 - 110
Y Carrier	83.4		40 - 110

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

400-171344 COC

Client Information	Sampler: Rick Hagendorfer / Brett Sarles	Lab PM: Whitmire, Cheyenne R	Carrier Tr	COC No: 400-84581-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #:			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist GSA Delineation Sampling	Project #: 40005424			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 2540C - Total Dissolved Solids, 4500_F_C - Fluoride	6020 - As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A - Mercury	FieldSampling - Field Sampling Parameters	Dissolved 9315 Ra226 9320 Ra228 Ra226Ra228 GFPC	Chloride, Sulfate, TDS, Fluoride	6020 - As, Ba, Be, Ca, Cd, Co, Pb, Li, Se, Tl	7470A - Mercury Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N						
PZ-200S	6-7-19	1700	G	Water			X	X	X	X						
PZ-200D	6/7/19	1037	G	Water			X	X	X	X	X	X	X	X		
GSA-2S	6/5/19	0905	G	Water			X	X	X	X						
PZ-201D	6/7/19	0725	G	Water			X	X	X	X						
GE-1D	6/7/19	1307	G	Water			X	X	X	X						
DUP-01	6/7/19	1207	G	W			X	X	X							
FB-01	6/7/19	1200	G	W			X	X	X							
EB-01	6-7-19	1550	G	W			X	X	X							
GE-4d	6/5/19	1914	G	W			X	X	X	X						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6-8-19 1105	RDH Env		6/8/19 1105	TAPen
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.5°, 0.9° IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171344-2

Login Number: 171344
List Number: 1
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C 0.9°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-171344-2

Login Number: 171344
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/11/19 11:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19 *
Florida	NELAP	4	E81010	06-30-20 *
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19 *
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

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

Accreditation/Certification Summary

Client: Gulf Power Company
Job ID: 400-171344-2
Project/Site: CCR Plant Crist GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2305	04-06-22
ANAB	DoD		L2305	04-06-22
ANAB	DOE		L2305.01	04-06-22
Arizona	State		AZ0813	12-08-19
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-20
Connecticut	State Program	1	PH-0241	03-31-21
Florida	NELAP	4	E87689	06-30-20
Florida	NELAP		E87689	06-30-20
Hawaii	State Program	9	NA	06-30-19 *
Illinois	NELAP	5	200023	11-30-19
Iowa	State Program	7	373	12-01-20
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	KY90125	12-31-19
Louisiana	NELAP	6	04080	06-30-20
Louisiana (DW)	NELAP	6	LA011	12-31-19
Maryland	State Program	3	310	09-30-20
Michigan	State Program	5	9005	06-30-19 *
Missouri	State Program	7	780	06-30-20
Nevada	State Program	9	MO000542018-1	07-31-19 *
New Jersey	NELAP	2	MO002	06-30-20
New York	NELAP	2	11616	03-31-20
New York	NELAP		11616	04-01-20
North Dakota	State Program	8	R207	06-30-20
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State		9997	08-31-19
Oklahoma	State Program	6	9997	08-31-19 *
Pennsylvania	NELAP	3	68-00540	02-28-20
Pennsylvania	NELAP		68-00540	02-28-20
South Carolina	State Program	4	85002001	06-30-20
Texas	NELAP	6	T104704193-18-13	07-31-19 *
Texas	NELAP		T104704193-19-13	07-31-20
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19 *
Virginia	NELAP	3	460230	06-14-20
Virginia	NELAP		10310	06-14-20
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

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

Geosyntec consultants

180A Market Place Boulevard
Knoxville, TN 37922
PH 865.330.0037
www.geosyntec.com

Memorandum

Date:	September 3, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-170945-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous samples and one field duplicate sample, collected May 31, 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020
- Mercury by US EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-170945-1	MW-100
400-170945-2	MW-101
400-170945-3	MW-107
400-170945-4	MW-108

Laboratory ID	Client ID
400-170945-5	MW-306
400-170945-6	MW-307
400-170945-7	DUP-01

The samples were received within the requirement of 0-6ºC. No preservation issues were noted by the laboratory.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
⊗ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the recoveries of boron in bracketing continuing calibration verifications (CCVs) in batches 447436 and 454169 were high and outside the control limits. Since boron was not detected in the associated samples, no qualifications were applied to the data.

The laboratory noted that boron was detected at a concentration greater than the method detection limit (MDL) in a bracketing continuing calibration blank (CCB) in batch 454169. Since boron was not detected in the associated samples, no qualifications were applied to the data.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (two in batch 446508 and one in batch 446685). Metals were not detected in the method blanks s above the MDLs associated with the reported sample results, with the following exception.

Arsenic was detected at an estimated concentration greater than the MDL and less than the RL in the method blank in batch 446508 analyzed on July 9, 2019. Since arsenic was not detected in the associated samples, no qualifications were applied to the data, based on professional and technical judgment.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample DUP-01. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

It was noted that the thallium results reported in analytical batches 454169, 454434 and 454608 were flagged L by the laboratory indicating result was off-scale high. Since recoveries of thallium were within the laboratory specified acceptance criteria, no qualifications were applied to the data, based on professional and technical judgment.

1.6 Equipment Blank

An equipment blank was not collected with the sample set.

1.7 Field Blank

A field blank was not collected with the sample set.

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision [relative percent difference (RPD) < 20% or difference < practical quantitation limit (+)] was demonstrated between the field duplicate and the original sample MW-306, with the following exception.

Selenium was not detected in the original sample and was detected at a concentration greater than the RL in the field duplicate sample. Therefore, the selenium concentration was J qualified as estimated and the non-detect selenium result was UJ qualified as estimated less than the MDL in the field duplicate pair.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
MW-306	Selenium	0.00071	U	0.00071	UJ	FD
DUP-01	Selenium	0.0016	NA	0.0016	J	FD

mg/L-milligrams per liter
U-not detected at or above the MDL
NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by US EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 444687). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

An equipment blank was not collected with the sample set.

2.7 Field Blank

A field blank was not collected with the sample set.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample MW-306.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Equipment Blank
✓ Field Blank
⊗ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 443030 and 443147, chloride batch 444889, sulfate batches 444804 and 444821 and fluoride batch 443181). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride and sulfate using sample MW-108. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported for fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for fluoride using sample MW-100. The RPD result was within the laboratory specified acceptance criteria.

Two batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

An equipment blank was not collected with the sample set.

3.8 Field Blank

A field blank was not collected with the sample set.

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3.9 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample MW-306, with the following exception.

The RPD of TDS was greater than 20%; therefore, the TDS concentrations were J qualified as estimated in the field duplicate pair.

Sample	Analyte	Laboratory Result (mg/L)	Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
MW-306	TDS	32	NA	32	J	FD
DUP-01	TDS	20	NA	20	J	FD

mg/L-milligrams per liter
NA-not applicable

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision. The result should be considered estimated.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	August 6, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-170945-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous samples and one field duplicate sample, collected May 31, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Radium-226 by Environmental Protection Agency (EPA) Method 9315
- Radium-228 by EPA Method 9320
- Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012)

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-170945-1	MW-100
400-170945-2	MW-101
400-170945-3	MW-107
400-170945-4	MW-108

Laboratory ID	Client ID
400-170945-5	MW-306
400-170945-6	MW-307
400-170945-7	DUP-01

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and combined radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-226 data (batch 431725). One method blank was reported for the radium-228 data (batch 431732). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS/LCS duplicate (LCSD) pair was reported for radium-226 and one LCS/LCSD pair was reported for radium-228. The recovery and relative error ratio (RER) results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Field Blank

One field blank was collected with the sample set, FB-01. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.9 Equipment Blank

One equipment blank was collected with the sample set, EB-01. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RER (2σ) ≥ 3) was demonstrated between the field duplicate and original sample MW-306.

1.11 Sensitivity

The samples were reported to the MDCs.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	August 28, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-171046-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, one field duplicate sample, one equipment blank and one field blank, collected June 4, 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020
- Mercury by US EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride by Standard Method 4500 CL-E
- Fluoride by Standard Method 4500 F C
- Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-171046-1	MW-200
400-171046-2	MW-201
400-171046-3	MW-202
400-171046-4	MW-203
400-171046-5	MW-204

Laboratory ID	Client ID
400-171046-6	MW-205
400-171046-7	MW-206
400-171046-8	DUP-03
400-171046-9	EB-03
400-171046-10	FB-03

The samples were received within the requirement of 0-6ºC. No preservation issues were noted by the laboratory.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 446685). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank, EB-03, was collected with the sample set. Metals were not detected in the equipment blank above the MDLs, with the following exception.

Boron (0.34 mg/L) was detected at a concentration greater than the reporting limit (RL) in the equipment blank. Therefore, the boron concentration in the associated sample less than the equipment blank concentration was U* qualified as not detected at the reported concentration and the boron concentrations in the associated samples greater than the equipment blank concentration and less than ten times the equipment blank concentration were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
MW-202	Boron	0.23	NA	0.23	U*	BE
MW-203	Boron	0.65	NA	0.65	J	BE
MW-205	Boron	0.98	NA	0.98	J	BE

mg/L-milligrams per liter
NA-not applicable
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

One field blank, FB-03, was collected with the sample set and reported. Metals were not detected in the field blank above the MDLs.

Boron (0.19 mg/L) was detected at a concentration greater than the RL in the field blank. Since the associated samples were qualified due to equipment blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-03. Acceptable precision [relative percent difference (RPD) < 20% or difference < practical quantitation limit (PQL)] was demonstrated between the field duplicate and the original sample MW-201.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by US EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate

- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 444697). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample MW-200. The recovery and RPD results were within the laboratory specified acceptance criteria.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank, EB-03, was collected with the sample set. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank, FB-03, was collected with the sample set. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-03. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample MW-201.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride by Standard Method 4500 Cl-E, fluoride by Standard Method 4500 F C, sulfate by Standard Method 4500 SO4 E and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 443462 and 443518, chloride batch 444889, sulfate batches 444804 and 444821 and fluoride batches 443503 and 444194). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for fluoride using sample MW-202 and chloride using sample DUP-03. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of chloride were low and outside the laboratory specified acceptance criteria in the MS/MSD pair using sample DUP-03. Since the chloride concentration in sample DUP-03 was greater than four times the spiked concentration, no qualifications were applied to the data, based on professional and technical judgment.

Batch MS/MSD pairs were also reported for fluoride and sulfate. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for TDS using sample MW-204. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank, EB-03, was collected with the sample set. The wet chemistry parameters were not detected in the equipment blank above the MDLs.

3.8 Field Blank

One field blank, FB-03, was collected with the sample set. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-03. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample MW-201.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Geosyntec consultants

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Memorandum

Date:	August 28, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-171046-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, one field duplicate sample, one equipment blank and one field blank, collected June 4, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Radium-226 by United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by US EPA Method 9320
- Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012)

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-171046-1	MW-200
400-171046-2	MW-201
400-171046-3	MW-202
400-171046-4	MW-203
400-171046-5	MW-204

Laboratory ID	Client ID
400-171046-6	MW-205
400-171046-7	MW-206
400-171046-8	DUP-03
400-171046-9	EB-03
400-171046-10	FB-03

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and combined radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 431902 and 431905). Two method blanks were reported for the radium-228 data (batches 431904 and 431909). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and one LCS/LCS duplicate (LCSD) pair were reported for radium-226 and one LCS and one LCS/LCSD pair were reported for radium-228. The recovery and relative error ratio (RER) results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Batch laboratory duplicates were reported for radium-226 and radium-228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Field Blank

One field blank was collected with the sample set, FB-03. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.9 Equipment Blank

One equipment blank was collected with the sample set, EB-03. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-03. Acceptable precision (RER (2σ) ≥ 3) was demonstrated between the field duplicate and original sample MW-201.

1.11 Sensitivity

The samples were reported to the MDCs.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Memorandum

Date:	September 17, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Job ID 400-171344-1**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous sample, one field duplicate sample, one field blank and one equipment blank, collected June 5-7, 2019, as part of the Plant Crist sampling event.

The samples were analyzed at Eurofins TestAmerica, Pensacola, Florida, for the following analytical tests:

- Total and Dissolved Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020
- Total and Dissolved Mercury by US EPA Method 7470A
- Total Dissolved Solids (TDS) and Field Filtered Total Dissolved Solids by Standard Method 2540C
- Total and Dissolved Chloride by Standard Method 4500 CL-E
- Total and Dissolved Fluoride by Standard Method 4500 F C
- Total and Dissolved Sulfate by Standard Method 4500 SO4 E

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-171344-1	PZ-200S
400-171344-2	PZ-200D
400-171344-3	GSA-2S
400-171344-4	PZ-201D
400-171344-5	GE-1D

Laboratory ID	Client ID
400-171344-6	DUP-01
400-171344-7	FB-01
400-171344-8	EB-01
400-171344-9	GE-4D

The samples were received within the requirement of 0-6ºC. No preservation issues were noted by the laboratory.

1.0 METALS

The samples were analyzed for total and dissolved metals by US EPA methods 3005A/6020.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

⊗ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
⊗ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
⊗ Assessment of Total Metals vs. Dissolved Metals
✓ Electronic Data Deliverable Review

1.1 Overall Assessment

1.1.1 Completeness

The metals data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.1.2 Analysis Anomaly

The laboratory noted that the recoveries of boron in bracketing continuing calibration verifications (CCVs) in batch 454169 were high and outside the control limits. Therefore, the boron concentrations in the associated samples were J qualified as estimated.

The laboratory noted that the thallium was detected above the reporting limit (RL) in bracketing continuing calibration blanks (CCBs) in batch 454169. The laboratory noted that thallium was either not detected or detected at concentration greater than ten times the CCB concentrations; therefore, no qualifications were applied to the data, based on professional and technical judgment.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-200S	Boron	14	J3	14	J	CV
GSA-2S	Boron	8.6	J3	8.6	J	CV

mg/L-milligrams per liter
J3-laboratory flag defined as Estimated value; value may not be accurate. Spike recovery or relative percent difference (RPD) outside of criteria.
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (two in batch 447169). Metals were not detected in the method blanks above the method detection limits (MDLs) for the sample results associated with the method blanks, with the following exceptions.

Calcium was detected at an estimated concentration greater than the MDL and less than the RL and arsenic (0.00110 mg/L) and boron (0.135 mg/L) were detected at concentrations greater than the RLs in the method blank in batch 447169 analyzed on August 26, 2019. Since arsenic, boron and calcium were either not detected or detected at concentrations greater than ten times the method blank concentrations in the associated samples, no qualifications were applied to the data.

Dissolved calcium was detected at an estimated concentration greater than the MDL and less than the RL in the method blank in batch 447172 analyzed on August 26, 2019. Since dissolved calcium was detected at a concentration greater than ten times the method blank concentration in the associated sample, no qualifications were applied to the data.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria, with the following exception.

The recovery of boron was high and outside the laboratory specified acceptance criteria in the LCS in batch 447169. Therefore, the boron concentrations in the associated samples were J qualified as estimated.

It was noted that the thallium results reported in the LCSs in batches 447169 and 447172 were flagged L by the laboratory indicating result was off-scale high. Since recoveries of thallium were within the laboratory specified acceptance criteria, no qualifications were applied to the data, based on professional and technical judgment.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
PZ-200S	Boron	14	J3	14	J	L+
GSA-2S	Boron	8.6	J3	8.6	J	L+

mg/L-milligrams per liter
J3-laboratory flag defined as Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, EB-01. Metals were not detected in the equipment blank above the MDLs, with the following exceptions.

Lithium was detected at an estimated concentration greater than the MDL and less than the RL. Therefore, the lithium concentrations in the associated samples less than ten times the field blank concentrations were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-200S	Lithium	0.0013	I	0.0013	J	BE
PZ-200D	Lithium	0.0024	I	0.0024	J	BE
GSA-2S	Lithium	0.0019	I	0.0019	J	BE
GE-1D	Lithium	0.0046	I	0.0046	J	BE
DUP-01	Lithium	0.0036	I	0.0036	J	BE
GE-4D	Lithium	0.0017	I	0.0017	J	BE

mg/L-milligrams per liter
I-laboratory flag defined as The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

1.7 Field Blank

One field blank was collected with the sample set, FB-01. Metals were not detected in the field blank above the MDLs.

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample GE-1D.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported due to dilutions analyzed.

1.10 Assessment of Total Metals vs. Dissolved Metals

Sample PZ-200D was analyzed for both total and dissolved metals. The total metal concentrations were greater than or equal to the dissolved metals concentrations in the sample, with the following exceptions.

Dissolved thallium was detected above the RL and total thallium was not detected in sample PZ-200D; therefore, the total thallium result was UJ qualified as estimated less than the MDL and the dissolved thallium concentration was J qualified as estimated, based on professional and technical judgment.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-200D	Thallium, Dissolved	0.0025	NA	0.0025	J	13
PZ-200D	Thallium	0.000085	U	0.000085	UJ	13

mg/L-milligrams per liter
U-not detected at or above the MDL
NA-not applicable

1.11 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for total and dissolved mercury by US EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Assessment of Total Metals vs. Dissolved Metals
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 444819). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample PZ-200S. The recovery and RPD results were within the laboratory specified acceptance criteria.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, EB-01. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank was collected with the sample set, FB-01. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample GE-1D.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Assessment of Total Mercury vs. Dissolved Metals

Sample PZ-200D was analyzed for both total and dissolved mercury. The total mercury concentration was greater than or equal to the dissolved mercury concentration in the sample

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for total and dissolved chloride by SM 4500 Cl-E, total and dissolved fluoride by Standard Method 4500 F C, total and dissolved sulfate by SM 4500 SO4 E and TDS and field filtered TDS by SM 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Assessment of Total Wet Chemistry Parameters and vs. Dissolved Wet Chemistry Parameters

✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride, chloride and sulfate analysis of a water sample is 28 days from sample collection to analysis. The holding time for TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for each analysis and batch (TDS batches 444190, 444382 and 444384, chloride batches 444889 and 444984, sulfate batches 444821 and 444865 and fluoride batches 444194 and 445043). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for chloride using sample GE-1D and sulfate using sample GSA-2S. The recovery and RPD results were within the laboratory specified acceptance criteria.

Batch MS/MSD pairs were also reported for fluoride, sulfate and chloride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for fluoride using sample PZ-200D. The RPD result was within the laboratory specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS and fluoride. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank was collected with the sample set, EB-01. The wet chemistry parameters were not detected in the equipment blank above the MDLs, with the following exception.

TDS (26 mg/L) was detected at a concentration greater than the RL in EB-01. Therefore, the TDS concentrations in the associated samples less than ten times the field blank concentration were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
PZ-200D	TDS Field Filtered	96	NA	96	J	BE
PZ-200D	TDS	130	NA	130	J	BE
PZ-201D	TDS	110	NA	110	J	BE
GE-1D	TDS	130	NA	130	J	BE
DUP-01	TDS	110	NA	110	J	BE
GE-4D	TDS	160	NA	160	J	BE

mg/L-milligrams per liter
NA-not applicable

3.8 Field Blank

One field blank was collected with the sample set, FB-01. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RPD < 20% or difference < PQL) was demonstrated between the field duplicate and the original sample GE-1D.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Assessment of Total Wet Chemistry Parameters vs. Dissolved Wet Chemistry Parameters

The sample was analyzed for both total and dissolved anions and alkalinity and for TDS and field filtered TDS. The total anions and alkalinity concentrations were greater than or equal to the dissolved anions and alkalinity concentrations and the TDS concentration was greater than or equal to the field filtered TDS concentration in the sample.

3.12 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BL	Laboratory blank contamination. The result should be considered "not-detected."
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision. The result should be considered estimated.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
CV	Calibration criteria not met.

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Memorandum

Date:	August 6, 2019
To:	Carl Eldred
From:	Kristoffer Henderson
CC:	H. Parthasarathy and J. Caprio
Subject:	**Stage 2A Data Validations - Level II Data Deliverable – Eurofins TestAmerica Laboratories, Inc. Job Number 440-171344-2**

SITE: Plant Crist

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of six aqueous samples, one field duplicate sample, one field blank and one equipment blank, collected June 5-7, 2019, as part of the Plant Crist CCR sampling event.

The samples were analyzed at Eurofins TestAmerica St. Louis (TA St. Louis), Earth City, MO for the following analytical tests:

- Total and Dissolved Radium-226 by United States (US) Environmental Protection Agency (EPA) Method 9315
- Total and Dissolved Radium-228 by US EPA Method 9320
- Total and Dissolved Combine Radium 226 + 228 by Calculation

EXECUTIVE SUMMARY

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012)

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
400-171344-1	PZ-200S
400-171344-2	PZ-200D
400-171344-3	GSA-2S
400-171344-4	PZ-201D
400-171344-5	GE-1D

Laboratory ID	Client ID
400-171344-6	DUP-01
400-171344-7	FB-01
400-171344-8	EB-01
400-171344-9	GE-4D

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and combine radium 226+228 by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Total and Dissolved Radiochemistry Assessment
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this sample set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-226 data (batches 431725 and 431902). Two method blanks were reported for the radium-228 data (batches 431732 and 431904). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCS/LCS duplicate (LCSD) pairs were reported for radium-226 and two LCS/LCSD pairs were reported for radium-228. The recovery and relative error ratio (RER) results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

Laboratory duplicates were not reported with the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Field Blank

One field blank was collected with the sample set, FB-01. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.9 Equipment Blank

One equipment blank was collected with the sample set, EB-01. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-01. Acceptable precision (RER (2σ) ≥3) was demonstrated between the field duplicate and original sample GE-1D.

1.11 Sensitivity

The samples were reported to the MDCs.

1.12 Total and Dissolved Radiochemistry Assessment

Total and dissolved radium-226, radium-228 and radium-226+228 were reported for sample PZ-200D.

The total radium-226 concentration in sample PZ-200D was greater than the dissolved radium-226 concentration. However, the dissolved radium-228 and radium-226+228 concentrations in sample PZ-200D were greater than the total radium-228 and radium-226+228 concentrations. Since the RERs between the total and dissolved radium-228 and radium-226+228 results were less than 3, no qualifications were applied to the data, based on professional and technical judgment.

1.13 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U* This analyte should be considered "not-detected" because it was detected in an associated blank at a similar level.

UJ The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.

J The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious analytical efficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample

UR The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however, the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the staple and meet quality control criteria. The analyte may or may not be present in the sample.

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ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
FD	Field duplicate imprecision.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

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Product Name: Low-Flow System

Date: 2019-11-06 10:57:29

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	121 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	104 ft

Well Information:		Pumping Information:	
Well ID	MW-100	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7600741 L
Well Total Depth	119 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	90.85 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:40:58	300.05	22.62	4.81	40.22	1.39	90.87	7.48	215.76
Last 5	10:45:58	600.02	22.42	4.81	40.44	1.20	90.87	7.56	213.91
Last 5	10:50:58	900.02	22.45	4.81	40.44	1.14	90.87	7.58	212.71
Last 5	10:55:59	1201.03	22.45	4.82	40.38	1.10	90.87	7.59	211.80
Last 5									
Variance 0			-0.20	-0.00	0.22			0.08	-1.86
Variance 1			0.03	0.00	0.01			0.02	-1.20
Variance 2			-0.00	0.01	-0.06			0.01	-0.91

Notes

Sample time @ 1100. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-06 12:20:30

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	120 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	113.1 ft

Well Information:		Pumping Information:	
Well ID	MW-101	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7556108 L
Well Total Depth	118.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.6 in
Depth to Water	96.85 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:02:08	300.03	22.59	4.93	25.79	1.21	96.90	8.61	210.41
Last 5	12:07:08	600.02	22.40	4.94	25.94	0.92	96.90	8.61	208.37
Last 5	12:12:08	900.02	22.40	4.94	25.98	0.87	96.90	8.58	207.12
Last 5	12:17:08	1200.03	22.41	4.94	26.04	0.85	96.90	8.56	206.91
Last 5									
Variance 0			-0.19	0.00	0.15			-0.00	-2.05
Variance 1			0.01	0.00	0.04			-0.02	-1.24
Variance 2			0.01	0.00	0.06			-0.02	-0.22

Notes

Sample time @ 1220. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-06 09:57:40

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	126 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	119 ft

Well Information:		Pumping Information:	
Well ID	MW-107	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7823914 L
Well Total Depth	124 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.12 in
Depth to Water	102.40 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:31:58	900.02	22.12	4.88	29.57	3.84	102.41	8.13	208.14
Last 5	09:36:58	1200.02	22.36	4.88	29.53	2.38	102.41	8.15	208.22
Last 5	09:41:58	1500.02	22.14	4.88	29.55	2.04	102.41	8.17	208.75
Last 5	09:46:58	1800.02	22.16	4.87	29.48	1.92	102.41	8.15	209.20
Last 5	09:51:58	2100.02	22.18	4.88	29.51	1.95	102.41	8.16	208.73
Variance 0			-0.22	-0.00	0.02			0.02	0.53
Variance 1			0.02	-0.00	-0.07			-0.02	0.45
Variance 2			0.02	0.01	0.03			0.02	-0.47

Notes

Sample time @ 0955. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-06 08:29:51

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	100 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	92.9 ft

Well Information:		Pumping Information:	
Well ID	MW-108	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6663423 L
Well Total Depth	97.9 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	70.72 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:06:37	300.10	21.81	4.71	41.86	1.48	70.74	7.76	230.45
Last 5	08:11:37	600.02	21.84	4.72	39.20	1.34	70.74	7.72	226.41
Last 5	08:16:37	900.02	21.86	4.76	37.87	1.38	70.74	7.71	221.68
Last 5	08:21:37	1200.02	21.91	4.78	37.18	1.42	70.74	7.68	218.54
Last 5	08:26:37	1500.02	22.00	4.78	36.75	1.50	70.74	7.68	217.03
Variance 0			0.02	0.03	-1.32			-0.01	-4.74
Variance 1			0.04	0.02	-0.69			-0.03	-3.14
Variance 2			0.09	-0.00	-0.43			0.01	-1.51

Notes

Sample time @ 0830. PC 70. DUP-01 @ fake time 0730.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-06 13:54:49

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	88 ft

Well Information:		Pumping Information:	
Well ID	MW-306	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.5140252 L
Well Total Depth	93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	56.35 ft	Total Volume Pumped	20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:26:59	1500.01	20.89	5.07	30.03	4.28	56.45	8.10	224.41
Last 5	13:31:59	1800.01	20.91	5.06	29.91	2.54	56.45	8.09	225.81
Last 5	13:36:59	2100.00	20.87	5.05	29.72	1.96	56.45	8.08	229.08
Last 5	13:41:59	2400.00	20.90	5.05	29.65	1.51	56.45	8.07	228.66
Last 5	13:51:59	2999.99	20.86	5.04	29.72	1.18	56.45	8.05	229.23
Variance 0			-0.04	-0.01	-0.19			-0.01	3.27
Variance 1			0.03	-0.00	-0.08			-0.01	-0.42
Variance 2			-0.03	-0.01	0.08			-0.02	0.57

Notes

Sample time 1400 cloudy 72

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-06 12:08:56

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	125 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	118 ft

Well Information:		Pumping Information:	
Well ID	MW-307	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6479279 L
Well Total Depth	123 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14 in
Depth to Water	90.60 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:45:27	3000.00	21.44	5.58	29.07	1.28	91.80	4.10	133.65
Last 5	11:50:27	3300.00	21.57	5.56	28.61	1.30	91.80	4.32	133.64
Last 5	11:55:27	3599.99	21.56	5.54	28.33	1.07	91.80	4.55	136.62
Last 5	12:00:27	3899.99	21.45	5.53	28.32	1.01	91.80	4.63	137.84
Last 5	12:05:27	4199.98	21.49	5.52	28.22	1.07	91.80	4.72	137.97
Variance 0			-0.02	-0.02	-0.28			0.23	2.98
Variance 1			-0.11	-0.01	-0.02			0.08	1.22
Variance 2			0.04	-0.01	-0.09			0.09	0.13

Notes

Sample time 1210. Cloudy 76

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 10:04:36

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW-200	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3806832 L
Well Total Depth	34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	19.35 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:46:34	300.02	20.92	4.97	1187.90	1.02	19.39	0.76	134.29
Last 5	09:51:34	600.03	21.06	4.93	1271.77	0.38	19.39	0.68	133.70
Last 5	09:56:34	900.03	20.92	4.92	1311.70	0.44	19.39	0.64	133.29
Last 5	10:01:34	1200.02	20.92	4.92	1296.82	0.67	19.39	0.65	135.17
Last 5									
Variance 0			0.14	-0.04	83.87			-0.09	-0.59
Variance 1			-0.13	-0.01	39.93			-0.03	-0.41
Variance 2			0.00	-0.00	-14.88			0.00	1.88

Notes

Sample @1003, Cloudy 40

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 09:36:41

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-201	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	49.12 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:13:38	300.02	20.73	4.73	17.44	6.39	49.52	8.00	186.05
Last 5	09:18:38	600.01	21.31	4.68	805.45	4.63	49.52	0.93	201.74
Last 5	09:23:38	900.01	21.20	4.68	793.00	3.27	49.52	0.86	196.78
Last 5	09:28:38	1200.01	21.22	4.67	795.72	1.61	49.52	0.83	193.62
Last 5	09:33:38	1500.00	21.06	4.67	797.11	1.38	49.52	0.80	189.93
Variance 0			-0.11	-0.00	-12.45			-0.06	-4.96
Variance 1			0.02	-0.01	2.72			-0.04	-3.15
Variance 2			-0.16	-0.00	1.38			-0.03	-3.70

Notes

Sample time 0935. Cloudy 42

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 09:20:20

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	62 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	MW-202	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.4967322 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	51.90 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:55:55	900.04	21.37	4.45	168.50	1.16	51.92	0.41	265.35
Last 5	09:00:55	1200.04	21.51	4.47	161.00	0.95	51.92	0.45	277.21
Last 5	09:05:55	1500.04	21.51	4.49	158.25	0.92	51.92	0.47	284.81
Last 5	09:10:55	1800.04	21.56	4.49	159.40	0.89	51.92	0.51	288.54
Last 5	09:15:55	2100.04	21.55	4.51	154.81	0.87	51.92	0.51	291.52
Variance 0			0.00	0.01	-2.75			0.02	7.60
Variance 1			0.05	0.01	1.15			0.03	3.73
Variance 2			-0.01	0.02	-4.59			0.01	2.98

Notes

Sample time@ 0920. Cloudy 40. FB-01 @ 0915.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 11:09:27

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist CCR	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	65 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	MW-203	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3801225 L
Well Total Depth	63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	45.92 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:46:39	1200.01	17.08	5.19	1.67	5.34	45.72	8.10	138.97
Last 5	10:51:39	1500.01	19.57	5.06	233.54	3.70	45.72	0.37	154.01
Last 5	10:56:39	1800.00	19.86	5.06	233.43	2.57	45.72	0.33	150.96
Last 5	11:01:39	2100.00	19.79	5.07	232.88	2.39	45.72	0.32	148.67
Last 5	11:06:39	2400.00	19.89	5.06	233.47	1.45	45.72	0.32	147.22
Variance 0			0.28	-0.00	-0.11			-0.04	-3.05
Variance 1			-0.06	0.00	-0.55			-0.01	-2.29
Variance 2			0.09	-0.01	0.59			0.00	-1.45

Notes

Sample time 1110. Cloudy 40

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 10:24:54

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist plant CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	MW-204	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12.24 in
Depth to Water	14.20 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:59:07	300.05	21.15	4.24	968.86	0.94	15.22	0.12	292.18
Last 5	10:04:07	600.04	21.16	4.24	990.58	0.85	15.22	0.10	273.81
Last 5	10:09:07	900.04	21.15	4.24	994.21	0.83	15.22	0.09	256.77
Last 5	10:14:07	1200.04	21.19	4.24	986.08	0.80	15.22	0.10	252.09
Last 5	10:19:07	1500.05	21.10	4.24	976.07	0.75	15.22	0.11	248.70
Variance 0			-0.01	-0.00	3.63			-0.00	-17.04
Variance 1			0.04	0.00	-8.14			0.01	-4.68
Variance 2			-0.09	0.00	-10.01			0.01	-3.39

Notes

Sample time @ 1025. Cloudy 40. EB-01@ 0945.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 08:49:47

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	MW-206	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3985369 L
Well Total Depth	38 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	27.85 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:26:30	300.02	20.20	4.52	2438.48	2.06	27.89	0.13	184.85
Last 5	08:31:30	600.02	20.21	4.55	2415.68	0.74	27.89	0.12	175.39
Last 5	08:36:30	900.03	20.30	4.56	2384.05	0.69	27.89	0.10	169.82
Last 5	08:41:30	1200.03	20.47	4.57	2370.25	0.66	27.89	0.10	165.53
Last 5	08:46:30	1500.02	20.49	4.56	2379.83	0.85	27.89	0.09	162.84
Variance 0			0.09	0.01	-31.64			-0.01	-5.57
Variance 1			0.17	0.01	-13.80			-0.01	-4.29
Variance 2			0.02	-0.01	9.59			-0.00	-2.69

Notes

Sample0848, Cloudy 56

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-12 11:18:36

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	Crist CCR GYP	Tubing Diameter	.17 in
Site Name	Crist plant CCR	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	MW -205	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3762198 L
Well Total Depth	33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	16.96 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	11:02:12	300.03	20.25	4.70	909.22	1.84	16.98	2.06	140.80
Last 5	11:07:12	600.02	20.34	4.70	908.36	0.88	16.98	2.06	140.16
Last 5	11:12:12	900.03	20.38	4.69	909.66	0.75	16.98	2.06	139.75
Last 5	11:17:12	1200.02	20.40	4.69	903.79	0.52	16.98	2.06	139.30
Last 5									
Variance 0			0.09	-0.00	-0.86			-0.01	-0.65
Variance 1			0.04	-0.01	1.30			-0.00	-0.41
Variance 2			0.02	0.00	-5.87			0.00	-0.45

Notes

Sample@1117, Cloudy 42

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-14 09:04:55

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist Delineation CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	210 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	199.8 ft

Well Information:		Pumping Information:	
Well ID	PZ-203d	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	1.157319 L
Well Total Depth	202.3 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	1.32 in
Depth to Water	8.25 ft	Total Volume Pumped	34 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:39:20	3905.06	20.52	6.49	97.15	6.68	8.37	0.14	-175.83
Last 5	08:44:23	4208.08	20.70	6.52	95.92	6.13	8.37	0.13	-175.40
Last 5	08:49:24	4508.13	20.71	6.54	94.94	5.48	8.37	0.13	-175.17
Last 5	08:54:23	4808.08	20.66	6.57	93.56	4.67	8.37	0.12	-175.32
Last 5	08:59:24	5109.08	20.57	6.59	93.01	4.76	8.37	0.12	-175.14
Variance 0			0.00	0.02	-0.98			-0.01	0.24
Variance 1			-0.05	0.03	-1.38			-0.01	-0.16
Variance 2			-0.09	0.02	-0.55			-0.00	0.18

Notes

Sample time @ 0905. Cloudy 50. DUP-01@ fake time 0805.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-14 15:02:21

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist Delineation CCR	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	110 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	100.1 ft

Well Information:		Pumping Information:	
Well ID	GE-1d	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7109765 L
Well Total Depth	102.6 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	17.4 in
Depth to Water	17.75 ft	Total Volume Pumped	112 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:35:15	15640.07	21.59	4.85	73.74	26.10	19.20	3.82	200.68
Last 5	14:40:15	15940.07	21.74	4.90	78.93	25.90	19.20	3.85	199.57
Last 5	14:45:30	16255.44	21.81	4.81	71.34	25.40	19.20	3.82	204.53
Last 5	14:50:30	16555.08	21.80	4.81	71.69	25.40	19.20	3.83	202.72
Last 5	14:55:30	16855.08	21.82	4.82	70.89	25.60	19.20	3.85	202.43
Variance 0			0.07	-0.08	-7.58			-0.03	4.96
Variance 1			-0.01	-0.01	0.35			0.01	-1.81
Variance 2			0.02	0.01	-0.80			0.02	-0.28

Notes

Sample time @ 1500. Cloudy 50. EB-01@ 1000. FF GE-1D @ 1500.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-15 09:03:21

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	PP
Company Name	RDH	Tubing Type	PE
Project Name	Crist Delineation	Tubing Diameter	.17 in
Site Name	Crist Delineation	Tubing Length	38 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	597516		
Turbidity Make/Model	HACH	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	PZ-200s	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	33.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.07 in
Depth to Water	8.11 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:41:19	300.02	20.61	4.47	6455.58	0.84	8.18	0.15	170.27
Last 5	08:46:19	600.03	20.74	4.50	6552.32	1.23	8.18	0.12	162.02
Last 5	08:51:19	900.02	20.69	4.52	6137.79	0.53	8.18	0.11	156.09
Last 5	08:56:19	1200.02	20.66	4.53	5857.97	0.44	8.18	0.11	152.26
Last 5	09:01:19	1500.02	20.79	4.53	5856.72	0.59	8.18	0.10	149.97
Variance 0			-0.05	0.02	-414.53			-0.01	-5.93
Variance 1			-0.04	0.01	-279.82			-0.01	-3.83
Variance 2			0.13	0.00	-1.26			-0.01	-2.29

Notes

Sample@0902, DUP@0802, Sunny 51

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-14 14:31:21

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	BP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist CCR Delineation	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	195 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	185.7 ft

Well Information:		Pumping Information:	
Well ID	PZ-201D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.9603675 L
Well Total Depth	188.2 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	26 in
Depth to Water	44.46 ft	Total Volume Pumped	160 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:06:42	19808.85	21.57	6.87	89.97	10.60	47.45	0.09	-103.40
Last 5	14:11:42	20108.85	21.62	6.87	89.44	10.30	47.45	0.09	-103.31
Last 5	14:16:42	20408.85	21.53	6.86	89.69	10.20	47.45	0.10	-101.66
Last 5	14:21:42	20708.85	21.53	6.85	91.78	10.10	47.45	0.10	-101.66
Last 5	14:26:42	21008.84	21.61	6.85	89.79	9.72	47.45	0.09	-101.71
Variance 0			-0.09	-0.01	0.24			0.01	1.66
Variance 1			0.00	-0.00	2.09			0.00	-0.00
Variance 2			0.08	-0.01	-1.98			-0.00	-0.05

Notes

Sample time 1435 cloudy 49

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-15 08:28:28

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	PP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist GSA	Tubing Diameter	.17 in
Site Name	Crist Plant	Tubing Length	56 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	49.55 ft

Well Information:		Pumping Information:	
Well ID	GSA-2s	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.3399517 L
Well Total Depth	54.55 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	23.42 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:04:10	300.08	22.03	4.67	144.42	0.68	23.46	3.01	201.74
Last 5	08:09:10	600.08	22.15	4.62	136.83	0.42	23.46	2.97	204.44
Last 5	08:14:10	900.07	22.09	4.56	150.46	0.40	23.46	2.66	205.86
Last 5	08:19:10	1200.09	22.10	4.56	153.06	0.38	23.46	2.65	205.40
Last 5	08:24:10	1500.07	22.16	4.53	155.35	0.40	23.46	2.58	206.18
Variance 0			-0.06	-0.06	13.62			-0.31	1.41
Variance 1			0.02	-0.00	2.60			-0.01	-0.46
Variance 2			0.06	-0.02	2.28			-0.07	0.78

Notes

Sample time @ 0830. Sunny 50.

Grab Samples

Product Name: Low-Flow System

Date: 2019-11-20 15:02:16

Project Information:		Pump Information:	
Operator Name	Trevor Braddock	Pump Model/Type	ESP
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Crist Delineation	Tubing Diameter	.17 in
Site Name	Crist plant	Tubing Length	155 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	625126		
Turbidity Make/Model	2100q	Pump placement from TOC	146 ft

Well Information:		Pumping Information:	
Well ID	PZ-200D	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7818305 L
Well Total Depth	151 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	6.69 ft	Total Volume Pumped	128 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:37:38	18047.85	22.00	6.77	100.31	30.80	6.69	0.05	-50.13
Last 5	14:42:38	18347.85	22.00	6.77	100.50	28.60	6.69	0.05	-50.91
Last 5	14:47:38	18647.85	22.00	6.77	100.28	25.30	6.69	0.05	-50.54
Last 5	14:52:38	18947.85	22.02	6.77	100.65	25.60	6.69	0.05	-51.09
Last 5	14:57:38	19247.84	22.01	6.77	100.13	25.30	6.69	0.05	-50.72
Variance 0			-0.00	-0.00	-0.22			-0.00	0.37
Variance 1			0.02	0.00	0.37			0.00	-0.55
Variance 2			-0.01	0.00	-0.52			-0.00	0.38

Notes

Sample time 1505. duplicate taken. Fed set taken with 1um filter

Grab Samples

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179133-1
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 3:30:14 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179133-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179133-1

Metals

Method 6020: The method blank for preparation batch 400-465553 and analytical batch 400-465937 contained Boron above the reporting limit (RL). Due to analytical oversight more than 10 samples are bracketed between reportable QC.
MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6), DUP-01 (400-179133-7), (LCS 400-465553/2-A), (MB 400-465553/1-A), (400-179133-B-1-B MS) and (400-179133-B-1-C MSD) Internal standard responses were outside of acceptance limits for the following samples and/or CCV failed high. Affected samples will be re-analyzed. MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6), DUP-01 (400-179133-7), (LCS 400-465553/2-A), (MB 400-465553/1-A), (400-179133-B-1-B MS) and (400-179133-B-1-C MSD) Due to sample carryover in the QC, Boron is being reported from 400-466680. Previous analysis confirm result; therefore data is reported. DUP-01 (400-179133-7)

Method 6020: The method blank for preparation batch 400-472739 and analytical batch 400-473089 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

General Chemistry

Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-465489 was outside control limits. Sample non-homogeneity is suspected. The sample duplicate (DUP) precision for analytical batch 400-465652 was outside control limits. Sample non-homogeneity is suspected.

Method SM 4500 SO4 E: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for analytical batch 400-465094. The associated laboratory control sample (LCS) met acceptance criteria.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-100 — Lab Sample ID: 400-179133-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00020	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.019		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.000090	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	0.017	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.88		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00056	I	0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.00010	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Lithium	0.0011		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Chloride	5.8		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.82				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-101 — Lab Sample ID: 400-179133-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00019	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.0094		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.000047	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	0.016	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.46		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00033	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lithium	0.0010		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	10		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.94				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-107 — Lab Sample ID: 400-179133-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00020	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.012		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.000066	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	0.016	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.49		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00048	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lead	0.000066	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-107 (Continued) — Lab Sample ID: 400-179133-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0011		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	4.0	I	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-108 — Lab Sample ID: 400-179133-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00012	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.0097		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.022	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00019	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lead	0.000084	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Selenium	0.00034		0.00025	0.00016	mg/L	1		6020	Total Recoverable
Chloride	5.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.7	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-306 — Lab Sample ID: 400-179133-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00014	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.013		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.011	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.55		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00029	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lithium	0.00063	I	0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.04				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-307 — Lab Sample ID: 400-179133-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00024	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.017		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.0099	I V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	0.74		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-307 (Continued) — Lab Sample ID: 400-179133-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00094	I	0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.00020	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Lithium	0.0012		0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.52				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-179133-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00013	I V	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.0095		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.027	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	1.3		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00019	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lead	0.000079	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Selenium	0.00034		0.00025	0.00016	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.8	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.78				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179133-1	MW-100	Water	11/06/19 11:00	11/06/19 14:50	
400-179133-2	MW-101	Water	11/06/19 12:00	11/06/19 14:50	
400-179133-3	MW-107	Water	11/06/19 09:55	11/06/19 14:50	
400-179133-4	MW-108	Water	11/06/19 08:30	11/06/19 14:50	
400-179133-5	MW-306	Water	11/06/19 14:00	11/06/19 14:50	
400-179133-6	MW-307	Water	11/06/19 12:10	11/06/19 14:50	
400-179133-7	DUP-01	Water	11/06/19 07:30	11/06/19 14:50	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-100

Date Collected: 11/06/19 11:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00020**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:22	1
Barium	**0.019**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 19:36	5
Beryllium	**0.000090**	**I**	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:22	1
Boron	**0.017**	**V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:14	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:22	1
Calcium	**0.88**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 19:36	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:22	1
Cobalt	**0.00056**	**I**	0.0025	0.00056	mg/L		11/11/19 20:20	11/13/19 19:36	5
Lead	**0.00010**	**I**	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:22	1
Lithium	**0.0011**		0.0010	0.00038	mg/L		11/11/19 20:20	11/15/19 15:22	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:22	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:22	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/19/19 18:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:10	11/15/19 12:36	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**5.8**		2.0	1.4	mg/L			11/08/19 00:21	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:12	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:54	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.82**				SU			11/06/19 11:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-101

Date Collected: 11/06/19 12:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00019**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:37	1
Barium	**0.0094**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:01	5
Beryllium	**0.000047**	**I**	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:37	1
Boron	**0.016**	**V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:19	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:37	1
Calcium	**0.46**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:01	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:37	1
Cobalt	**0.00033**	**I**	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 15:37	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:37	1
Lithium	**0.0010**		0.0010	0.00038	mg/L		11/11/19 20:20	11/15/19 15:37	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:37	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:37	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/19/19 18:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:38	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10**		5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**6.0**		2.0	1.4	mg/L			11/09/19 00:11	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:15	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:54	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.94**				SU			11/06/19 12:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-107

Date Collected: 11/06/19 09:55
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00020**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:42	1
Barium	**0.012**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:06	5
Beryllium	**0.000066**	**I**	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:42	1
Boron	**0.016**	**V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:24	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:42	1
Calcium	**0.49**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:06	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:42	1
Cobalt	**0.00048**	**I**	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 15:42	1
Lead	**0.000066**	**I**	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:42	1
Lithium	**0.0011**		0.0010	0.00038	mg/L		11/11/19 20:20	11/15/19 15:42	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:42	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:42	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/19/19 18:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**4.0**	**I**	5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**6.1**		2.0	1.4	mg/L			11/09/19 00:11	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:19	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.88**				SU			11/06/19 09:55	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-108

Date Collected: 11/06/19 08:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00012**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:47	1
Barium	**0.0097**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:11	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:47	1
Boron	**0.022**	**V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:29	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:47	1
Calcium	**1.2**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:11	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:47	1
Cobalt	**0.00019**	**I**	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 15:47	1
Lead	**0.000084**	**I**	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:47	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/11/19 20:20	11/15/19 15:47	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:47	1
Selenium	**0.00034**		0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:47	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/15/19 15:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:46	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**5.7**		2.0	1.4	mg/L			11/09/19 00:11	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:23	1
Sulfate	**3.7**	**I**	5.0	1.4	mg/L			11/07/19 20:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.78**				SU			11/06/19 08:30	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-306

Date Collected: 11/06/19 14:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00014**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:52	1
Barium	**0.013**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:36	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:52	1
Boron	**0.011**	**V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:34	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:52	1
Calcium	**0.55**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:36	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:52	1
Cobalt	**0.00029**	**I**	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 15:52	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:52	1
Lithium	**0.00063**	**I**	0.0010	0.00038	mg/L		11/11/19 20:20	11/19/19 18:34	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:52	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:52	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/15/19 15:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:48	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			11/12/19 13:35	1
Chloride	**5.9**		2.0	1.4	mg/L			11/09/19 00:14	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:27	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.04**				SU			11/06/19 14:00	1

Client Sample ID: MW-307

Date Collected: 11/06/19 12:10
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00024**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:57	1
Barium	**0.017**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:41	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:57	1
Boron	**0.0099**	**I V**	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:39	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:57	1
Calcium	**0.74**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:41	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:57	1
Cobalt	**0.00094**	**I**	0.0025	0.00056	mg/L		11/11/19 20:20	11/13/19 20:41	5
Lead	**0.00020**	**I**	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:57	1
Lithium	**0.0012**		0.0010	0.00038	mg/L		11/11/19 20:20	11/19/19 00:45	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:57	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:57	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/15/19 15:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:50	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**4.7**		2.0	1.4	mg/L			11/09/19 00:14	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:31	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.52**				SU			11/06/19 12:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: DUP-01
Date Collected: 11/06/19 07:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-7
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00013**	**I V**	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 16:03	1
Barium	**0.0095**		0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 20:46	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 16:03	1
Boron	**0.027**	**V**	0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:55	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 16:03	1
Calcium	**1.3**		0.25	0.13	mg/L		11/11/19 20:20	11/13/19 20:46	5
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 16:03	1
Cobalt	**0.00019**	**I**	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 16:03	1
Lead	**0.000079**	**I**	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 16:03	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/11/19 20:20	11/19/19 18:54	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 16:03	1
Selenium	**0.00034**		0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 16:03	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/15/19 16:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/25/19 12:15	11/15/19 12:51	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**120**		5.0	3.4	mg/L			11/11/19 14:39	1
Chloride	**5.5**		2.0	1.4	mg/L			11/09/19 00:14	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 19:35	1
Sulfate	**3.8**	**I**	5.0	1.4	mg/L			11/07/19 20:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.78**				SU			11/06/19 07:30	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-100
Date Collected: 11/06/19 11:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 19:36	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:22	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:14	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:10	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:36	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465100	11/08/19 00:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:12	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:54	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 11:00	EHS	TAL PEN

Client Sample ID: MW-101
Date Collected: 11/06/19 12:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:01	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:37	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:19	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:38	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:11	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:15	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:54	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 12:00	EHS	TAL PEN

Client Sample ID: MW-107
Date Collected: 11/06/19 09:55
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:06	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:42	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:24	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-107
Date Collected: 11/06/19 09:55
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:44	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:11	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:19	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:59	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 09:55	EHS	TAL PEN

Client Sample ID: MW-108
Date Collected: 11/06/19 08:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:11	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:47	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:29	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:46	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:11	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:23	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:59	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 08:30	EHS	TAL PEN

Client Sample ID: MW-306
Date Collected: 11/06/19 14:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:36	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:52	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:34	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:48	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465652	11/12/19 13:35	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:14	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:27	MAF	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Client Sample ID: MW-306
Date Collected: 11/06/19 14:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:59	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 14:00	EHS	TAL PEN

Client Sample ID: MW-307
Date Collected: 11/06/19 12:10
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:41	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 15:57	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466497	11/19/19 00:45	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:39	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:50	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:14	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:31	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:59	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 12:10	EHS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 11/06/19 07:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		5	465937	11/13/19 20:46	AW	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466236	11/15/19 16:03	AC	TAL PEN
Total Recoverable	Prep	3005A			465553	11/11/19 20:20	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466680	11/19/19 18:54	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 18:55	LDC	TAL PEN
Total/NA	Prep	7470A			462974	10/25/19 12:15	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466162	11/15/19 12:51	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465489	11/11/19 14:39	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465276	11/09/19 00:14	HES	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	465902	11/13/19 19:35	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	465094	11/07/19 20:59	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	469534	11/06/19 07:30	EHS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 462974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	7470A	
400-179133-2	MW-101	Total/NA	Water	7470A	
400-179133-3	MW-107	Total/NA	Water	7470A	
400-179133-4	MW-108	Total/NA	Water	7470A	
400-179133-5	MW-306	Total/NA	Water	7470A	
400-179133-6	MW-307	Total/NA	Water	7470A	
400-179133-7	DUP-01	Total/NA	Water	7470A	
MB 400-462974/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-462974/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179087-D-1-D MS	Matrix Spike	Total/NA	Water	7470A	
400-179087-D-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 465553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total Recoverable	Water	3005A	
400-179133-2	MW-101	Total Recoverable	Water	3005A	
400-179133-3	MW-107	Total Recoverable	Water	3005A	
400-179133-4	MW-108	Total Recoverable	Water	3005A	
400-179133-5	MW-306	Total Recoverable	Water	3005A	
400-179133-6	MW-307	Total Recoverable	Water	3005A	
400-179133-7	DUP-01	Total Recoverable	Water	3005A	
MB 400-465553/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-465553/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-465553/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-465553/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-179133-1 MS	MW-100	Total Recoverable	Water	3005A	
400-179133-1 MSD	MW-100	Total Recoverable	Water	3005A	

Analysis Batch: 465937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total Recoverable	Water	6020	465553
400-179133-2	MW-101	Total Recoverable	Water	6020	465553
400-179133-3	MW-107	Total Recoverable	Water	6020	465553
400-179133-4	MW-108	Total Recoverable	Water	6020	465553
400-179133-5	MW-306	Total Recoverable	Water	6020	465553
400-179133-6	MW-307	Total Recoverable	Water	6020	465553
400-179133-7	DUP-01	Total Recoverable	Water	6020	465553
MB 400-465553/1-A ^5	Method Blank	Total Recoverable	Water	6020	465553
LCS 400-465553/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	465553
400-179133-1 MS	MW-100	Total Recoverable	Water	6020	465553
400-179133-1 MSD	MW-100	Total Recoverable	Water	6020	465553

Analysis Batch: 466162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	7470A	462974
400-179133-2	MW-101	Total/NA	Water	7470A	462974
400-179133-3	MW-107	Total/NA	Water	7470A	462974
400-179133-4	MW-108	Total/NA	Water	7470A	462974
400-179133-5	MW-306	Total/NA	Water	7470A	462974
400-179133-6	MW-307	Total/NA	Water	7470A	462974
400-179133-7	DUP-01	Total/NA	Water	7470A	462974

Metals (Continued)

Analysis Batch: 466162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-462974/14-A	Method Blank	Total/NA	Water	7470A	462974
LCS 400-462974/15-A	Lab Control Sample	Total/NA	Water	7470A	462974
400-179087-D-1-D MS	Matrix Spike	Total/NA	Water	7470A	462974
400-179087-D-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	462974

Analysis Batch: 466236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total Recoverable	Water	6020	465553
400-179133-2	MW-101	Total Recoverable	Water	6020	465553
400-179133-3	MW-107	Total Recoverable	Water	6020	465553
400-179133-4	MW-108	Total Recoverable	Water	6020	465553
400-179133-5	MW-306	Total Recoverable	Water	6020	465553
400-179133-6	MW-307	Total Recoverable	Water	6020	465553
400-179133-7	DUP-01	Total Recoverable	Water	6020	465553
MB 400-465553/1-A	Method Blank	Total Recoverable	Water	6020	465553
LCS 400-465553/2-A	Lab Control Sample	Total Recoverable	Water	6020	465553
400-179133-1 MS	MW-100	Total Recoverable	Water	6020	465553
400-179133-1 MSD	MW-100	Total Recoverable	Water	6020	465553

Analysis Batch: 466497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-6	MW-307	Total Recoverable	Water	6020	465553
MB 400-465553/1-A	Method Blank	Total Recoverable	Water	6020	465553

Analysis Batch: 466680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total Recoverable	Water	6020	465553
400-179133-2	MW-101	Total Recoverable	Water	6020	465553
400-179133-3	MW-107	Total Recoverable	Water	6020	465553
400-179133-4	MW-108	Total Recoverable	Water	6020	465553
400-179133-5	MW-306	Total Recoverable	Water	6020	465553
400-179133-6	MW-307	Total Recoverable	Water	6020	465553
400-179133-7	DUP-01	Total Recoverable	Water	6020	465553
MB 400-465553/1-A	Method Blank	Total Recoverable	Water	6020	465553

Prep Batch: 472739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-7	DUP-01	Total Recoverable	Water	3005A	
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179658-B-4-D MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179658-B-4-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 473089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-7	DUP-01	Total Recoverable	Water	6020	472739
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	6020	472739
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	6020	472739
400-179658-B-4-D MS	Matrix Spike	Total Recoverable	Water	6020	472739
400-179658-B-4-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	472739

General Chemistry

Analysis Batch: 465094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	SM 4500 SO4 E	
400-179133-2	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-179133-3	MW-107	Total/NA	Water	SM 4500 SO4 E	
400-179133-4	MW-108	Total/NA	Water	SM 4500 SO4 E	
400-179133-5	MW-306	Total/NA	Water	SM 4500 SO4 E	
400-179133-6	MW-307	Total/NA	Water	SM 4500 SO4 E	
400-179133-7	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-465094/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-465094/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-465094/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179133-2 MS	MW-101	Total/NA	Water	SM 4500 SO4 E	
400-179133-2 MSD	MW-101	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 465100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	SM 4500 Cl- E	
MB 400-465100/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-465100/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-465100/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-178893-G-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-178893-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 465276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-2	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-179133-3	MW-107	Total/NA	Water	SM 4500 Cl- E	
400-179133-4	MW-108	Total/NA	Water	SM 4500 Cl- E	
400-179133-5	MW-306	Total/NA	Water	SM 4500 Cl- E	
400-179133-6	MW-307	Total/NA	Water	SM 4500 Cl- E	
400-179133-7	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-465276/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-465276/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-465276/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179133-2 MS	MW-101	Total/NA	Water	SM 4500 Cl- E	
400-179133-2 MSD	MW-101	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 465489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	SM 2540C	
400-179133-2	MW-101	Total/NA	Water	SM 2540C	
400-179133-3	MW-107	Total/NA	Water	SM 2540C	
400-179133-4	MW-108	Total/NA	Water	SM 2540C	
400-179133-6	MW-307	Total/NA	Water	SM 2540C	
400-179133-7	DUP-01	Total/NA	Water	SM 2540C	
MB 400-465489/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-465489/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179133-6 DU	MW-307	Total/NA	Water	SM 2540C	

Analysis Batch: 465652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-5	MW-306	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 465652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-465652/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-465652/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179316-G-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 465902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	SM 4500 F C	
400-179133-2	MW-101	Total/NA	Water	SM 4500 F C	
400-179133-3	MW-107	Total/NA	Water	SM 4500 F C	
400-179133-4	MW-108	Total/NA	Water	SM 4500 F C	
400-179133-5	MW-306	Total/NA	Water	SM 4500 F C	
400-179133-6	MW-307	Total/NA	Water	SM 4500 F C	
400-179133-7	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-465902/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-465902/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-178791-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-178791-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 469534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	Field Sampling	
400-179133-2	MW-101	Total/NA	Water	Field Sampling	
400-179133-3	MW-107	Total/NA	Water	Field Sampling	
400-179133-4	MW-108	Total/NA	Water	Field Sampling	
400-179133-5	MW-306	Total/NA	Water	Field Sampling	
400-179133-6	MW-307	Total/NA	Water	Field Sampling	
400-179133-7	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-465553/1-A
Matrix: Water
Analysis Batch: 466236

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000126	I	0.00025	0.000078	mg/L		11/11/19 20:20	11/15/19 15:12	1
Barium	0.000205	I	0.00050	0.00014	mg/L		11/11/19 20:20	11/15/19 15:12	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/15/19 15:12	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/15/19 15:12	1
Calcium	0.025	U	0.050	0.025	mg/L		11/11/19 20:20	11/15/19 15:12	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/15/19 15:12	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/11/19 20:20	11/15/19 15:12	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/11/19 20:20	11/15/19 15:12	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/11/19 20:20	11/15/19 15:12	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/15/19 15:12	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/15/19 15:12	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/15/19 15:12	1

Lab Sample ID: MB 400-465553/1-A
Matrix: Water
Analysis Batch: 466497

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/11/19 20:20	11/19/19 00:14	1
Barium	0.000161	I	0.00050	0.00014	mg/L		11/11/19 20:20	11/19/19 00:14	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/11/19 20:20	11/19/19 00:14	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/11/19 20:20	11/19/19 00:14	1
Calcium	0.025	U	0.050	0.025	mg/L		11/11/19 20:20	11/19/19 00:14	1
Chromium	0.00020	U	0.00050	0.00020	mg/L		11/11/19 20:20	11/19/19 00:14	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/11/19 20:20	11/19/19 00:14	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/11/19 20:20	11/19/19 00:14	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/11/19 20:20	11/19/19 00:14	1
Molybdenum	0.00090	U	0.0030	0.00090	mg/L		11/11/19 20:20	11/19/19 00:14	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/11/19 20:20	11/19/19 00:14	1

Lab Sample ID: MB 400-465553/1-A
Matrix: Water
Analysis Batch: 466680

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00555	I	0.010	0.0036	mg/L		11/11/19 20:20	11/19/19 18:09	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/11/19 20:20	11/19/19 18:09	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/11/19 20:20	11/19/19 18:09	1

Lab Sample ID: MB 400-465553/1-A ^5
Matrix: Water
Analysis Batch: 465937

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.00070	U	0.0025	0.00070	mg/L		11/11/19 20:20	11/13/19 19:26	5
Calcium	0.13	U	0.25	0.13	mg/L		11/11/19 20:20	11/13/19 19:26	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/11/19 20:20	11/13/19 19:26	5

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

Lab Sample ID: LCS 400-465553/2-A
Matrix: Water
Analysis Batch: 466236

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0521		mg/L		104	80 - 120
Barium	0.0500	0.0486		mg/L		97	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Boron	0.100	0.0997		mg/L		100	80 - 120
Cadmium	0.0500	0.0532		mg/L		106	80 - 120
Calcium	5.00	5.31		mg/L		106	80 - 120
Chromium	0.0500	0.0536		mg/L		107	80 - 120
Cobalt	0.0500	0.0527		mg/L		105	80 - 120
Lead	0.0500	0.0503		mg/L		101	80 - 120
Lithium	0.0500	0.0507		mg/L		101	80 - 120
Molybdenum	0.0500	0.0535		mg/L		107	80 - 120
Selenium	0.0500	0.0509		mg/L		102	80 - 120
Thallium	0.0100	0.00998		mg/L		100	80 - 120

Lab Sample ID: LCS 400-465553/2-A ^5
Matrix: Water
Analysis Batch: 465937

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.0500	0.0474		mg/L		95	80 - 120
Calcium	5.00	5.09		mg/L		102	80 - 120
Cobalt	0.0500	0.0511		mg/L		102	80 - 120

Lab Sample ID: 400-179133-1 MS
Matrix: Water
Analysis Batch: 465937

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.019		0.0500	0.0672		mg/L		96	75 - 125
Calcium	0.88		5.00	6.00		mg/L		102	75 - 125
Cobalt	0.00056	I	0.0500	0.0521		mg/L		103	75 - 125

Lab Sample ID: 400-179133-1 MS
Matrix: Water
Analysis Batch: 466236

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.00020	I V	0.0500	0.0499		mg/L		99	75 - 125
Barium	0.019		0.0500	0.0693		mg/L		101	75 - 125
Beryllium	0.000090	I	0.0500	0.0501		mg/L		100	75 - 125
Boron	0.029	V	0.100	0.111		mg/L		83	75 - 125
Cadmium	0.000056	U	0.0500	0.0535		mg/L		107	75 - 125
Calcium	0.93		5.00	6.48		mg/L		111	75 - 125
Chromium	0.00020	U	0.0500	0.0532		mg/L		106	75 - 125
Cobalt	0.00057		0.0500	0.0520		mg/L		103	75 - 125
Lead	0.00010	I	0.0500	0.0506		mg/L		101	75 - 125
Lithium	0.0011		0.0500	0.0509		mg/L		100	75 - 125
Molybdenum	0.00090	U	0.0500	0.0544		mg/L		109	75 - 125
Selenium	0.00016	U	0.0500	0.0511		mg/L		102	75 - 125

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

Lab Sample ID: 400-179133-1 MS
Matrix: Water
Analysis Batch: 466236

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.00011		0.0100	0.0101		mg/L		100	75 - 125

Lab Sample ID: 400-179133-1 MSD
Matrix: Water
Analysis Batch: 465937

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.019		0.0500	0.0668		mg/L		95	75 - 125	1	20
Calcium	0.88		5.00	6.00		mg/L		102	75 - 125	0	20
Cobalt	0.00056	I	0.0500	0.0518		mg/L		102	75 - 125	1	20

Lab Sample ID: 400-179133-1 MSD
Matrix: Water
Analysis Batch: 466236

Client Sample ID: MW-100
Prep Type: Total Recoverable
Prep Batch: 465553

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.00020	I V	0.0500	0.0518		mg/L		103	75 - 125	4	20
Barium	0.019		0.0500	0.0690		mg/L		100	75 - 125	0	20
Beryllium	0.000090	I	0.0500	0.0502		mg/L		100	75 - 125	0	20
Boron	0.029	V	0.100	0.117		mg/L		89	75 - 125	5	20
Cadmium	0.000056	U	0.0500	0.0535		mg/L		107	75 - 125	0	20
Calcium	0.93		5.00	6.54		mg/L		112	75 - 125	1	20
Chromium	0.00020	U	0.0500	0.0550		mg/L		110	75 - 125	3	20
Cobalt	0.00057		0.0500	0.0536		mg/L		106	75 - 125	3	20
Lead	0.00010	I	0.0500	0.0514		mg/L		103	75 - 125	2	20
Lithium	0.0011		0.0500	0.0520		mg/L		102	75 - 125	2	20
Molybdenum	0.00090	U	0.0500	0.0544		mg/L		109	75 - 125	0	20
Selenium	0.00016	U	0.0500	0.0509		mg/L		102	75 - 125	0	20
Thallium	0.00011		0.0100	0.0103		mg/L		101	75 - 125	2	20

Lab Sample ID: MB 400-472739/1-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00551	I	0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:21	1

Lab Sample ID: LCS 400-472739/2-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.111		mg/L		111	80 - 120

Lab Sample ID: 400-179658-B-4-D MS
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.026	V	0.100	0.140		mg/L		114	75 - 125

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: 400-179658-B-4-E MSD
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.026	V	0.100	0.139		mg/L		113	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-462974/14-A
Matrix: Water
Analysis Batch: 466162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462974

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		10/24/19 10:36	11/15/19 11:58	1

Lab Sample ID: LCS 400-462974/15-A
Matrix: Water
Analysis Batch: 466162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000900		mg/L		89	80 - 120

Lab Sample ID: 400-179087-D-1-D MS
Matrix: Water
Analysis Batch: 466162

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 462974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00178		mg/L		88	80 - 120

Lab Sample ID: 400-179087-D-1-E MSD
Matrix: Water
Analysis Batch: 466162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 462974

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00177		mg/L		88	80 - 120	1	20

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

Lab Sample ID: MB 400-465489/1
Matrix: Water
Analysis Batch: 465489

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/11/19 14:39	1

Lab Sample ID: LCS 400-465489/2
Matrix: Water
Analysis Batch: 465489

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	352		mg/L		120	78 - 122

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

Lab Sample ID: 400-179133-6 DU
Matrix: Water
Analysis Batch: 465489

Client Sample ID: MW-307
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	20			22.0	J3	mg/L				10	5

Lab Sample ID: MB 400-465652/1
Matrix: Water
Analysis Batch: 465652

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/12/19 13:35	1

Lab Sample ID: LCS 400-465652/2
Matrix: Water
Analysis Batch: 465652

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	352		mg/L		120	78 - 122		

Lab Sample ID: 400-179316-G-4 DU
Matrix: Water
Analysis Batch: 465652

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	300			354	J3	mg/L				18	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-465100/6
Matrix: Water
Analysis Batch: 465100

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/08/19 00:11	1

Lab Sample ID: LCS 400-465100/7
Matrix: Water
Analysis Batch: 465100

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	32.4		mg/L		108	90 - 110		

Lab Sample ID: MRL 400-465100/3
Matrix: Water
Analysis Batch: 465100

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			2.00	1.73	I	mg/L		86	50 - 150		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-178893-G-1 MS
Matrix: Water
Analysis Batch: 465100

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	12		10.0	22.0		mg/L		101	73 - 120		

Lab Sample ID: 400-178893-G-1 MSD
Matrix: Water
Analysis Batch: 465100

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		10.0	22.1		mg/L		102	73 - 120	0	8

Lab Sample ID: MB 400-465276/6
Matrix: Water
Analysis Batch: 465276

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/09/19 00:11	1

Lab Sample ID: LCS 400-465276/7
Matrix: Water
Analysis Batch: 465276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.2		mg/L		107	90 - 110

Lab Sample ID: MRL 400-465276/3
Matrix: Water
Analysis Batch: 465276

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.68	I	mg/L		84	50 - 150

Lab Sample ID: 400-179133-2 MS
Matrix: Water
Analysis Batch: 465276

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	6.0		10.0	16.1		mg/L		102	73 - 120		

Lab Sample ID: 400-179133-2 MSD
Matrix: Water
Analysis Batch: 465276

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.0		10.0	16.4		mg/L		105	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-465902/15
Matrix: Water
Analysis Batch: 465902

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			11/13/19 18:30	1

Lab Sample ID: LCS 400-465902/14
Matrix: Water
Analysis Batch: 465902

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.97		mg/L		99	90 - 110

Lab Sample ID: 400-178791-A-1 MS
Matrix: Water
Analysis Batch: 465902

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.31		1.00	1.24		mg/L		93	75 - 125

Lab Sample ID: 400-178791-A-1 MSD
Matrix: Water
Analysis Batch: 465902

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.31		1.00	1.24		mg/L		93	75 - 125	0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-465094/6
Matrix: Water
Analysis Batch: 465094

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/07/19 20:47	1

Lab Sample ID: LCS 400-465094/7
Matrix: Water
Analysis Batch: 465094

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.4		mg/L		102	90 - 110

Lab Sample ID: MRL 400-465094/3
Matrix: Water
Analysis Batch: 465094

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.33		mg/L		107	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-179133-2 MS
Matrix: Water
Analysis Batch: 465094

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128		

Lab Sample ID: 400-179133-2 MSD
Matrix: Water
Analysis Batch: 465094

Client Sample ID: MW-101
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	U	10.0	1.4	U J3	mg/L		0	77 - 128	NC	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

400-179133 COC

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	COC No: 400-88345-23627.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com	Page: Page 1 of 1
Company: Gulf Power Company		Analysis Requested	Job #: 179133
Address: BIN 731 One Energy Place	Due Date Requested:		Preservation Codes:
City: Pensacola	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: FL, 32520			
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required		Other:
Email: richard.markey@nexteraenergy.com	WO #:		
Project Name: CCR Plant Crist	Project #: 40005424		
Site: Upgradient	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
				Preservation Code:			D	N	N	D		
MW-100	11/6/19	1100	G	Water			X	X	X	X		
MW-101	"	1200	"	Water			"	"	"	"		
MW-107	"	0955	"	Water			"	"	"	"		
MW-108	"	0830	"	Water			"	"	"	"		
MW-306	"	1400	"	Water			"	"	"	"		
MW-307	"	1210	"	Water			X	X	X	X		
Dup-01	11/6/19	0730	G	Water			X	X		X		
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/6/19 1130	RDH		11/6/19 1130	RDH
2		11/6/19 1450 1430 11/7/19	RDH		11/6/19 1450	TAL-PEN
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.0c, 3.1°C IR8

Ver: 01/16/2019

1/10/2020

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179133-1
SDG Number: Upgradient

Login Number: 179133
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, 3.1°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-1
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179133-2
Laboratory Sample Delivery Group: Upgradient
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/5/2019 5:34:54 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179133-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179133-2

RAD

Methods 9315: Radium-226 Prep Batch 160-449863. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6), DUP-01 (400-179133-7), (LCS 160-449863/1-A), (LCSD 160-449863/2-A) and (MB 160-449863/23-A)

Method 9320: Radium-228 Prep Batch 160-449864. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6), DUP-01 (400-179133-7), (LCS 160-449864/1-A), (LCSD 160-449864/2-A) and (MB 160-449864/18-A)

Method PrecSep_0: Radium 228 Prep batch 160-449864. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6) and DUP-01 (400-179133-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-449863. Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-100 (400-179133-1), MW-101 (400-179133-2), MW-107 (400-179133-3), MW-108 (400-179133-4), MW-306 (400-179133-5), MW-307 (400-179133-6) and DUP-01 (400-179133-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179133-1	MW-100	Water	11/06/19 11:00	11/06/19 14:50	
400-179133-2	MW-101	Water	11/06/19 12:00	11/06/19 14:50	
400-179133-3	MW-107	Water	11/06/19 09:55	11/06/19 14:50	
400-179133-4	MW-108	Water	11/06/19 08:30	11/06/19 14:50	
400-179133-5	MW-306	Water	11/06/19 14:00	11/06/19 14:50	
400-179133-6	MW-307	Water	11/06/19 12:10	11/06/19 14:50	
400-179133-7	DUP-01	Water	11/06/19 07:30	11/06/19 14:50	

Client Sample ID: MW-100

Date Collected: 11/06/19 11:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.279		0.108	0.111	1.00	0.126	pCi/L	11/12/19 10:43	12/04/19 06:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.05		0.460	0.470	1.00	0.667	pCi/L	11/12/19 11:10	11/15/19 18:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:54*	*1*
Y Carrier	*61.7*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.32		0.473	0.483	5.00	0.667	pCi/L		12/05/19 09:48	1

Client Sample ID: MW-101

Date Collected: 11/06/19 12:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213		0.100	0.102	1.00	0.128	pCi/L	11/12/19 10:43	12/04/19 06:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.679		0.330	0.336	1.00	0.481	pCi/L	11/12/19 11:10	11/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*
Y Carrier	*75.9*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.892		0.345	0.351	5.00	0.481	pCi/L		12/05/19 09:48	1

Client Sample ID: MW-107

Date Collected: 11/06/19 09:55
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.206**		0.0980	0.0997	1.00	0.125	pCi/L	11/12/19 10:43	12/04/19 06:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.303	U	0.393	0.394	1.00	0.654	pCi/L	11/12/19 11:10	11/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*
Y Carrier	*46.4*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.509	U	0.405	0.406	5.00	0.654	pCi/L		12/05/19 09:48	1

Client Sample ID: MW-108

Date Collected: 11/06/19 08:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.260		0.101	0.104	1.00	0.104	pCi/L	11/12/19 10:43	12/04/19 06:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.06		0.642	0.669	1.00	0.797	pCi/L	11/12/19 11:10	11/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*
Y Carrier	*44.9*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.32		0.650	0.677	5.00	0.797	pCi/L		12/05/19 09:48	1

Client Sample ID: MW-306

Date Collected: 11/06/19 14:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119		0.0718	0.0726	1.00	0.0977	pCi/L	11/12/19 10:43	12/04/19 06:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0136	U	0.293	0.293	1.00	0.524	pCi/L	11/12/19 11:10	11/15/19 18:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*
Y Carrier	*65.0*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:57*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.105	U	0.302	0.302	5.00	0.524	pCi/L		12/05/19 09:48	1

Client Sample ID: MW-307

Date Collected: 11/06/19 12:10
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.173		0.100	0.101	1.00	0.137	pCi/L	11/12/19 10:43	12/04/19 06:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.7*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.193	U	0.500	0.500	1.00	0.867	pCi/L	11/12/19 11:10	11/15/19 18:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.7*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:58*	*1*
Y Carrier	*47.1*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:58*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.366	U	0.510	0.510	5.00	0.867	pCi/L		12/05/19 09:48	1

Client Sample ID: DUP-01

Date Collected: 11/06/19 07:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.314		0.121	0.124	1.00	0.141	pCi/L	11/12/19 10:43	12/04/19 06:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*11/12/19 10:43*	*12/04/19 06:52*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.16		0.402	0.415	1.00	0.532	pCi/L	11/12/19 11:10	11/15/19 18:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:58*	*1*
Y Carrier	*70.3*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:58*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.420	0.433	5.00	0.532	pCi/L		12/05/19 09:48	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Client Sample ID: MW-100
Date Collected: 11/06/19 11:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:51	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450951	11/15/19 18:54	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Client Sample ID: MW-101
Date Collected: 11/06/19 12:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:51	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:57	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Client Sample ID: MW-107
Date Collected: 11/06/19 09:55
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:51	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:57	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Client Sample ID: MW-108
Date Collected: 11/06/19 08:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:51	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:57	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Client Sample ID: MW-306
Date Collected: 11/06/19 14:00
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:52	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:57	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Client Sample ID: MW-307
Date Collected: 11/06/19 12:10
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:52	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:58	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Client Sample ID: DUP-01
Date Collected: 11/06/19 07:30
Date Received: 11/06/19 14:50

Lab Sample ID: 400-179133-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			449863	11/12/19 10:43	MNH	TAL SL
Total/NA	Analysis	9315		1	452918	12/04/19 06:52	AJD	TAL SL
Total/NA	Prep	PrecSep_0			449864	11/12/19 11:10	MNH	TAL SL
Total/NA	Analysis	9320		1	450702	11/15/19 18:58	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453135	12/05/19 09:48	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 449863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	PrecSep-21	
400-179133-2	MW-101	Total/NA	Water	PrecSep-21	
400-179133-3	MW-107	Total/NA	Water	PrecSep-21	
400-179133-4	MW-108	Total/NA	Water	PrecSep-21	
400-179133-5	MW-306	Total/NA	Water	PrecSep-21	
400-179133-6	MW-307	Total/NA	Water	PrecSep-21	
400-179133-7	DUP-01	Total/NA	Water	PrecSep-21	
MB 160-449863/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-449863/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-449863/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 449864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179133-1	MW-100	Total/NA	Water	PrecSep_0	
400-179133-2	MW-101	Total/NA	Water	PrecSep_0	
400-179133-3	MW-107	Total/NA	Water	PrecSep_0	
400-179133-4	MW-108	Total/NA	Water	PrecSep_0	
400-179133-5	MW-306	Total/NA	Water	PrecSep_0	
400-179133-6	MW-307	Total/NA	Water	PrecSep_0	
400-179133-7	DUP-01	Total/NA	Water	PrecSep_0	
MB 160-449864/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-449864/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-449864/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-449863/23-A
Matrix: Water
Analysis Batch: 452918

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449863

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03962	U	0.0674	0.0675	1.00	0.149	pCi/L	11/12/19 10:43	12/04/19 08:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*11/12/19 10:43*	*12/04/19 08:48*	*1*

Lab Sample ID: LCS 160-449863/1-A
Matrix: Water
Analysis Batch: 452918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449863

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.948		1.04	1.00	0.123	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.0*		*40 - 110*

Lab Sample ID: LCSD 160-449863/2-A
Matrix: Water
Analysis Batch: 452918

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 449863

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	11.07		1.15	1.00	0.142	pCi/L	98	75 - 125	0.51	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*78.5*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-449864/18-A
Matrix: Water
Analysis Batch: 450702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449864

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3491	U	0.356	0.358	1.00	0.580	pCi/L	11/12/19 11:10	11/15/19 18:59	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:59*	*1*
Y Carrier	*73.3*		*40 - 110*	*11/12/19 11:10*	*11/15/19 18:59*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-449864/1-A
Matrix: Water
Analysis Batch: 450951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449864

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.39	9.490		1.16	1.00	0.517	pCi/L	101	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.0*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Lab Sample ID: LCSD 160-449864/2-A
Matrix: Water
Analysis Batch: 450951

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 449864

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.39	9.987		1.24	1.00	0.565	pCi/L	106	75 - 125	0.21	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*78.5*		*40 - 110*
Y Carrier	*79.6*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

400-179133 COC

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	COC No: 400-88345-23627.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com	Page: Page 1 of 1
Company: Gulf Power Company			Job #: 179133
Address: BIN 731 One Energy Place	Due Date Requested:		
City: Pensacola	TAT Requested (days):		
State, Zip: FL, 32520			
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required		
Email: richard.markey@nexteraenergy.com	WO #:		
Project Name: CCR Plant Crist	Project #: 40005424		
Site: Upgradient	SSOW#:		

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Cr,Co,Pb,Li,Mo,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
				Preservation Code:			D	N	N	D		
MW-100	11/6/19	1100	G	Water			X	X	X	X		
MW-101		1200		Water								
MW-107		0955		Water								
MW-108		0830		Water								
MW-306		1409		Water								
MW-307		1210	↓	Water			X	X	X	X		
Dup-01	11/6/19	0730	G	Water			X	X		X		
				Water								

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	11/6/19 1130	RDH		11/6/19 1130	RDH
Relinquished by:	11/6/19 1450 11/7/19	RDH		11/6/19 1450	TAL-PEN
Relinquished by:					

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.0c, 3.1°C IR8

Ver: 01/16/2019

12/5/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179133-2
SDG Number: Upgradient

Login Number: 179133
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0°C, 3.1°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179133-2
SDG Number: Upgradient

Login Number: 179133
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/08/19 11:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179133-2
SDG: Upgradient

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-19
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179448-1
Laboratory Sample Delivery Group: Downgradient D
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 4:16:11 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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

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

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Job ID: 400-179448-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179448-1

Metals

Method 6020: The serial dilution performed for the following sample associated with batch 400-466365 was outside control limits: (400-179447-D-1-A SD ^25)

Method 6020: The post digestion spike % recovery for Boron associated with batch 400-466365 was outside of control limits. The following samples are impacted: (400-179447-D-1-A PDS ^5) and (400-179447-D-1-A SD ^25).

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-465909 and analytical batch 400-466365 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The method blank for preparation batch 400-465909 and analytical batch 400-466497 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The continuing calibration verification (CCV) associated with batch 400-466497 recovered above the upper control limit for Barium. The samples associated with this CCV were over 10x the value of this result for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-200 (400-179448-1), MW-201 (400-179448-2), MW-204 (400-179448-5), MW-205 (400-179448-6), MW-206 (400-179448-7) and DUP-1 (400-179448-8).

Method 6020: The method blank for preparation batch 400-472739 and analytical batch 400-473089 contained Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-472739 and analytical batch 400-473089 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

General Chemistry

Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-465781 was outside control limits. Sample non-homogeneity is suspected.

Method SM 4500 Cl- E: Due to the concentration of chlorides in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-179448-B-1 MS) and (400-179448-B-1 MSD)

Method SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-465735 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-200 (400-179448-1), MW-201 (400-179448-2), MW-204 (400-179448-5), MW-205 (400-179448-6), MW-206 (400-179448-7), DUP-1 (400-179448-8), (400-179448-B-1 MS) and (400-179448-B-1 MSD). Elevated reporting limits (RLs) are provided.

Method SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-203 (400-179448-4), MW-204 (400-179448-5), MW-205 (400-179448-6) and MW-206 (400-179448-7). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-200 — Lab Sample ID: 400-179448-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0011	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.0071		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	5.3		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.00061	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	130		2.5	1.3	mg/L	50		6020	Total Recoverable
Lead	0.00069	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Selenium	0.0042		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Mercury	0.00056		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	1000		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	280		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.072	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	100		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-201 — Lab Sample ID: 400-179448-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.011		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	4.5		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.0020	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	82		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00061	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.0026	I	0.0050	0.0019	mg/L	5		6020	Total Recoverable
Selenium	0.0026		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00012	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable
Mercury	0.00048		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	670		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	190		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.57		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	93		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.67				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-202 — Lab Sample ID: 400-179448-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00071	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.051		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.17		0.010	0.0036	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample ID: MW-202 (Continued) — Lab Sample ID: 400-179448-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	8.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00041	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Thallium	0.000028	I	0.00010	0.000024	mg/L	1		6020	Total Recoverable
Mercury	0.0011		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	100		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	26		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.045	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	26		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.51				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-203 — Lab Sample ID: 400-179448-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00077	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.027		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	0.58		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	26		0.25	0.13	mg/L	5		6020	Total Recoverable
Selenium	0.0015		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.000056	I	0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	160		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.037	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	70		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA
Field pH	5.06				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-204 — Lab Sample ID: 400-179448-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00050	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.0053		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Beryllium	0.00049	I	0.0025	0.00017	mg/L	5		6020	Total Recoverable
Boron	6.7		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.00028	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	62		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.011		0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.0019		0.0013	0.00029	mg/L	5		6020	Total Recoverable
Selenium	0.0050		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00026	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-204 (Continued) — Lab Sample ID: 400-179448-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	620		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	88		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.20		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	320		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.24				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-205 — Lab Sample ID: 400-179448-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0016	V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.059		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	3.9		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.00028	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	49		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0027		0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.00078	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.0043	I	0.0050	0.0019	mg/L	5		6020	Total Recoverable
Selenium	0.0061		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00017	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable
Mercury	0.00016	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	500		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	100		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.082	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.69				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-206 — Lab Sample ID: 400-179448-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0022	V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.0081		0.00050	0.00014	mg/L	1		6020	Total Recoverable
Boron	14		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.00055	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	240		2.5	1.3	mg/L	50		6020	Total Recoverable
Cobalt	0.00067	I	0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.0010	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Selenium	0.012		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00019	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-206 (Continued) — Lab Sample ID: 400-179448-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1900		25	17	mg/L	1		SM 2540C	Total/NA
Chloride	490		20	14	mg/L	10		SM 4500 Cl- E	Total/NA
Fluoride	0.045	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	260		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.56				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 400-179448-8

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00066	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.059		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	5.4		0.50	0.18	mg/L	50		6020	Total Recoverable
Cadmium	0.0020	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	83		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00065	I	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.0035	I	0.0050	0.0019	mg/L	5		6020	Total Recoverable
Selenium	0.0027		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00012	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable
Mercury	0.00052		0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	640		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	180		10	7.0	mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.54		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	91		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA
Field pH	4.67				SU	1		Field Sampling	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-179448-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.0041	I V	0.010	0.0036	mg/L	1		6020	Total Recoverable

Client Sample ID: EB-01 — Lab Sample ID: 400-179448-10

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00048	I V	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Boron	0.010	V	0.010	0.0036	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179448-1	MW-200	Water	11/12/19 10:03	11/12/19 13:14	
400-179448-2	MW-201	Water	11/12/19 09:35	11/12/19 13:14	
400-179448-3	MW-202	Water	11/12/19 09:20	11/12/19 13:14	
400-179448-4	MW-203	Water	11/12/19 11:10	11/12/19 13:14	
400-179448-5	MW-204	Water	11/12/19 10:25	11/12/19 13:14	
400-179448-6	MW-205	Water	11/12/19 11:17	11/12/19 13:14	
400-179448-7	MW-206	Water	11/12/19 08:48	11/12/19 13:14	
400-179448-8	DUP-1	Water	11/12/19 09:35	11/12/19 13:14	
400-179448-9	FB-01	Water	11/12/19 09:15	11/12/19 13:14	
400-179448-10	EB-01	Water	11/12/19 09:45	11/12/19 13:14	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-200

Date Collected: 11/12/19 10:03
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011	I V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 20:59	5
Barium	0.0071		0.00050	0.00014	mg/L		11/13/19 22:05	11/20/19 22:48	1
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 20:59	5
Boron	5.3		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:09	50
Cadmium	0.00061	I	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 20:59	5
Calcium	130		2.5	1.3	mg/L		11/13/19 22:05	11/18/19 16:09	50
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 20:59	5
Lead	0.00069	I	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 20:59	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 20:59	5
Selenium	0.0042		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 20:59	5
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 19:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00056		0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:00	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10	6.8	mg/L			11/13/19 10:17	1
Chloride	280		20	14	mg/L			11/12/19 23:26	10
Fluoride	0.072	I	0.10	0.032	mg/L			11/25/19 10:14	1
Sulfate	100		25	7.0	mg/L			11/26/19 13:34	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.92				SU			11/12/19 10:03	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-201

Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-2

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:04	5
Barium	**0.011**		0.00050	0.00014	mg/L		11/13/19 22:05	11/20/19 22:53	1
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:04	5
Boron	**4.5**		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:14	50
Cadmium	**0.0020**	**I**	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:04	5
Calcium	**82**		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:04	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:04	5
Lead	**0.00061**	**I**	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:04	5
Lithium	**0.0026**	**I**	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:04	5
Selenium	**0.0026**		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:04	5
Thallium	**0.00012**	**I**	0.00050	0.00012	mg/L		11/13/19 22:05	11/21/19 19:29	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00048**		0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:07	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**670**		5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	**190**		20	14	mg/L			11/12/19 23:26	10
Fluoride	**0.57**		0.10	0.032	mg/L			11/25/19 10:26	1
Sulfate	**93**		25	7.0	mg/L			11/26/19 13:34	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.67**				SU			11/12/19 09:35	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-202
Date Collected: 11/12/19 09:20
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00071	I V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:09	5
Barium	0.051		0.00050	0.00014	mg/L		11/13/19 22:05	11/18/19 16:19	1
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:09	5
Boron	0.17		0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:32	1
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:09	5
Calcium	8.9		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:09	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:09	5
Lead	0.00041	I	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:09	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:09	5
Selenium	0.00082	U	0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:09	5
Thallium	0.000028	I	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 19:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0011		0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	26		2.0	1.4	mg/L			11/12/19 23:08	1
Fluoride	0.045	I	0.10	0.032	mg/L			11/25/19 10:30	1
Sulfate	26		5.0	1.4	mg/L			11/18/19 17:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.51				SU			11/12/19 09:20	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-203

Date Collected: 11/12/19 11:10
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00077	I V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:14	5
Barium	0.027		0.00050	0.00014	mg/L		11/13/19 22:05	11/18/19 16:24	1
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:14	5
Boron	0.58		0.050	0.018	mg/L		01/02/20 16:31	01/07/20 20:50	5
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:14	5
Calcium	26		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:14	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:14	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:14	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:14	5
Selenium	0.0015		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:14	5
Thallium	0.000056	I	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 19:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	13		2.0	1.4	mg/L			11/12/19 23:10	1
Fluoride	0.037	I	0.10	0.032	mg/L			11/25/19 10:34	1
Sulfate	70		10	2.8	mg/L			11/18/19 17:42	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.06				SU			11/12/19 11:10	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-204

Date Collected: 11/12/19 10:25
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00050	I V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:19	5
Barium	0.0053		0.00050	0.00014	mg/L		11/13/19 22:05	11/20/19 23:08	1
Beryllium	0.00049	I	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:19	5
Boron	6.7		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:29	50
Cadmium	0.00028	I	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:19	5
Calcium	62		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:19	5
Cobalt	0.011		0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:19	5
Lead	0.0019		0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:19	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:19	5
Selenium	0.0050		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:19	5
Thallium	0.00026	I	0.00050	0.00012	mg/L		11/13/19 22:05	11/21/19 19:44	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	620		10	6.8	mg/L			11/13/19 10:17	1
Chloride	88		4.0	2.8	mg/L			11/12/19 23:28	2
Fluoride	0.20		0.10	0.032	mg/L			11/25/19 10:38	1
Sulfate	320		50	14	mg/L			11/18/19 17:42	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.24				SU			11/12/19 10:25	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-205

Date Collected: 11/12/19 11:17
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0016	V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:24	5
Barium	0.059		0.0025	0.00070	mg/L		11/13/19 22:05	11/21/19 19:59	5
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:24	5
Boron	3.9		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:34	50
Cadmium	0.00028	I	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:24	5
Calcium	49		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:24	5
Cobalt	0.0027		0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:24	5
Lead	0.00078	I	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:24	5
Lithium	0.0043	I	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:24	5
Selenium	0.0061		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:24	5
Thallium	0.00017	I	0.00050	0.00012	mg/L		11/13/19 22:05	11/21/19 19:59	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00016	I	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	500		5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	100		4.0	2.8	mg/L			11/12/19 23:28	2
Fluoride	0.082	I	0.10	0.032	mg/L			11/25/19 10:42	1
Sulfate	170		25	7.0	mg/L			11/18/19 17:42	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.69				SU			11/12/19 11:17	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-206

Date Collected: 11/12/19 08:48
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0022	V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:29	5
Barium	0.0081		0.00050	0.00014	mg/L		11/13/19 22:05	11/20/19 23:18	1
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:29	5
Boron	14		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:39	50
Cadmium	0.00055	I	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:29	5
Calcium	240		2.5	1.3	mg/L		11/13/19 22:05	11/18/19 16:39	50
Cobalt	0.00067	I	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:29	5
Lead	0.0010	I	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:29	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:29	5
Selenium	0.012		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:29	5
Thallium	0.00019	I	0.00050	0.00012	mg/L		11/13/19 22:05	11/21/19 20:04	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1900		25	17	mg/L			11/13/19 10:17	1
Chloride	490		20	14	mg/L			11/12/19 23:28	10
Fluoride	0.045	I	0.10	0.032	mg/L			11/25/19 10:46	1
Sulfate	260		50	14	mg/L			11/18/19 17:42	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.56				SU			11/12/19 08:48	1

Client Sample ID: DUP-1

Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00066	I V	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:44	5
Barium	0.059		0.0025	0.00070	mg/L		11/13/19 22:05	11/16/19 21:44	5
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:44	5
Boron	5.4		0.50	0.18	mg/L		11/13/19 22:05	11/18/19 16:44	50
Cadmium	0.0020	I	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:44	5
Calcium	83		0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:44	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:44	5
Lead	0.00065	I	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:44	5
Lithium	0.0035	I	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:44	5
Selenium	0.0027		0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:44	5
Thallium	0.00012	I	0.00050	0.00012	mg/L		11/13/19 22:05	11/21/19 20:09	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00052		0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:23	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	640		5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	180		10	7.0	mg/L			11/12/19 23:28	5
Fluoride	0.54		0.10	0.032	mg/L			11/25/19 10:50	1
Sulfate	91		25	7.0	mg/L			11/26/19 13:34	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.67				SU			11/12/19 09:35	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: FB-01

Date Collected: 11/12/19 09:15
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:49	5
Barium	0.00070	U	0.0025	0.00070	mg/L		11/13/19 22:05	11/16/19 21:49	5
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:49	5
Boron	**0.0041**	**I V**	0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:38	1
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:49	5
Calcium	0.13	U	0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:49	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:49	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:49	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:49	5
Selenium	0.00082	U	0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:49	5
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 20:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:25	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	1.4	U	2.0	1.4	mg/L			11/12/19 23:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/25/19 10:54	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/18/19 17:11	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: EB-01

Date Collected: 11/12/19 09:45
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-10

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00048**	**I V**	0.0013	0.00039	mg/L		11/13/19 22:05	11/16/19 21:54	5
Barium	0.00070	U	0.0025	0.00070	mg/L		11/13/19 22:05	11/16/19 21:54	5
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/13/19 22:05	11/16/19 21:54	5
Boron	**0.010**	**V**	0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:49	1
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/13/19 22:05	11/16/19 21:54	5
Calcium	0.13	U	0.25	0.13	mg/L		11/13/19 22:05	11/16/19 21:54	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/13/19 22:05	11/16/19 21:54	5
Lead	0.00029	U	0.0013	0.00029	mg/L		11/13/19 22:05	11/16/19 21:54	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/13/19 22:05	11/16/19 21:54	5
Selenium	0.00082	U	0.0013	0.00082	mg/L		11/13/19 22:05	11/16/19 21:54	5
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 20:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 10:27	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/13/19 10:17	1
Chloride	1.4	U	2.0	1.4	mg/L			11/12/19 23:10	1
Fluoride	0.032	U	0.10	0.032	mg/L			11/25/19 10:58	1
Sulfate	1.4	U	5.0	1.4	mg/L			11/18/19 17:11	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-200
Date Collected: 11/12/19 10:03
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 20:59	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:09	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466869	11/20/19 22:48	LDC	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 19:24	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:00	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	465735	11/12/19 23:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	467607	11/26/19 13:34	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 10:03	EHS	TAL PEN

Client Sample ID: MW-201
Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:04	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:14	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466869	11/20/19 22:53	LDC	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467060	11/21/19 19:29	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:07	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	465735	11/12/19 23:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	467607	11/26/19 13:34	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 09:35	EHS	TAL PEN

Client Sample ID: MW-202
Date Collected: 11/12/19 09:20
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:09	AW	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-202
Date Collected: 11/12/19 09:20
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466497	11/18/19 16:19	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 19:34	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 18:32	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:09	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465735	11/12/19 23:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	466564	11/18/19 17:11	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 09:20	EHS	TAL PEN

Client Sample ID: MW-203
Date Collected: 11/12/19 11:10
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:14	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466497	11/18/19 16:24	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 19:39	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		5	473236	01/07/20 20:50	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465735	11/12/19 23:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:34	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	466564	11/18/19 17:42	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 11:10	EHS	TAL PEN

Client Sample ID: MW-204
Date Collected: 11/12/19 10:25
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:19	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:29	AW	TAL PEN

Client Sample ID: MW-204
Date Collected: 11/12/19 10:25
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466869	11/20/19 23:08	LDC	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467060	11/21/19 19:44	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	465735	11/12/19 23:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	466564	11/18/19 17:42	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 10:25	EHS	TAL PEN

Client Sample ID: MW-205
Date Collected: 11/12/19 11:17
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:24	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:34	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467060	11/21/19 19:59	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		2	465735	11/12/19 23:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:42	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	466564	11/18/19 17:42	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 11:17	EHS	TAL PEN

Client Sample ID: MW-206
Date Collected: 11/12/19 08:48
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:29	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:39	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	466869	11/20/19 23:18	LDC	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467060	11/21/19 20:04	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: MW-206
Date Collected: 11/12/19 08:48
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		10	465735	11/12/19 23:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:46	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	466564	11/18/19 17:42	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 08:48	EHS	TAL PEN

Client Sample ID: DUP-1
Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:44	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		50	466497	11/18/19 16:44	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467060	11/21/19 20:09	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:23	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		5	465735	11/12/19 23:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	467607	11/26/19 13:34	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/12/19 09:35	EHS	TAL PEN

Client Sample ID: FB-01
Date Collected: 11/12/19 09:15
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:49	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 20:14	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 18:38	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:25	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465735	11/12/19 23:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:54	RRC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Client Sample ID: FB-01
Date Collected: 11/12/19 09:15
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	466564	11/18/19 17:11	RRC	TAL PEN

Client Sample ID: EB-01
Date Collected: 11/12/19 09:45
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466365	11/16/19 21:54	AW	TAL PEN
Total Recoverable	Prep	3005A			465909	11/13/19 22:05	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 20:19	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 18:49	LDC	TAL PEN
Total/NA	Prep	7470A			466183	11/20/19 13:51	JAP	TAL PEN
Total/NA	Analysis	7470A		1	466958	11/21/19 10:27	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	465781	11/13/19 10:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	465735	11/12/19 23:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	467473	11/25/19 10:58	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	466564	11/18/19 17:11	RRC	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 465909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total Recoverable	Water	3005A	
400-179448-2	MW-201	Total Recoverable	Water	3005A	
400-179448-3	MW-202	Total Recoverable	Water	3005A	
400-179448-4	MW-203	Total Recoverable	Water	3005A	
400-179448-5	MW-204	Total Recoverable	Water	3005A	
400-179448-6	MW-205	Total Recoverable	Water	3005A	
400-179448-7	MW-206	Total Recoverable	Water	3005A	
400-179448-8	DUP-1	Total Recoverable	Water	3005A	
400-179448-9	FB-01	Total Recoverable	Water	3005A	
400-179448-10	EB-01	Total Recoverable	Water	3005A	
MB 400-465909/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-465909/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-179447-D-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-179447-D-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 466183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	7470A	
400-179448-2	MW-201	Total/NA	Water	7470A	
400-179448-3	MW-202	Total/NA	Water	7470A	
400-179448-4	MW-203	Total/NA	Water	7470A	
400-179448-5	MW-204	Total/NA	Water	7470A	
400-179448-6	MW-205	Total/NA	Water	7470A	
400-179448-7	MW-206	Total/NA	Water	7470A	
400-179448-8	DUP-1	Total/NA	Water	7470A	
400-179448-9	FB-01	Total/NA	Water	7470A	
400-179448-10	EB-01	Total/NA	Water	7470A	
MB 400-466183/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-466183/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179448-1 MS	MW-200	Total/NA	Water	7470A	
400-179448-1 MSD	MW-200	Total/NA	Water	7470A	

Analysis Batch: 466365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total Recoverable	Water	6020	465909
400-179448-2	MW-201	Total Recoverable	Water	6020	465909
400-179448-3	MW-202	Total Recoverable	Water	6020	465909
400-179448-4	MW-203	Total Recoverable	Water	6020	465909
400-179448-5	MW-204	Total Recoverable	Water	6020	465909
400-179448-6	MW-205	Total Recoverable	Water	6020	465909
400-179448-7	MW-206	Total Recoverable	Water	6020	465909
400-179448-8	DUP-1	Total Recoverable	Water	6020	465909
400-179448-9	FB-01	Total Recoverable	Water	6020	465909
400-179448-10	EB-01	Total Recoverable	Water	6020	465909
LCS 400-465909/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	465909
400-179447-D-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	465909
400-179447-D-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	465909

Analysis Batch: 466497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total Recoverable	Water	6020	465909

Metals (Continued)

Analysis Batch: 466497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-2	MW-201	Total Recoverable	Water	6020	465909
400-179448-3	MW-202	Total Recoverable	Water	6020	465909
400-179448-4	MW-203	Total Recoverable	Water	6020	465909
400-179448-5	MW-204	Total Recoverable	Water	6020	465909
400-179448-6	MW-205	Total Recoverable	Water	6020	465909
400-179448-7	MW-206	Total Recoverable	Water	6020	465909
400-179448-8	DUP-1	Total Recoverable	Water	6020	465909

Analysis Batch: 466869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total Recoverable	Water	6020	465909
400-179448-2	MW-201	Total Recoverable	Water	6020	465909
400-179448-5	MW-204	Total Recoverable	Water	6020	465909
400-179448-7	MW-206	Total Recoverable	Water	6020	465909

Analysis Batch: 466958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	7470A	466183
400-179448-2	MW-201	Total/NA	Water	7470A	466183
400-179448-3	MW-202	Total/NA	Water	7470A	466183
400-179448-4	MW-203	Total/NA	Water	7470A	466183
400-179448-5	MW-204	Total/NA	Water	7470A	466183
400-179448-6	MW-205	Total/NA	Water	7470A	466183
400-179448-7	MW-206	Total/NA	Water	7470A	466183
400-179448-8	DUP-1	Total/NA	Water	7470A	466183
400-179448-9	FB-01	Total/NA	Water	7470A	466183
400-179448-10	EB-01	Total/NA	Water	7470A	466183
MB 400-466183/14-A	Method Blank	Total/NA	Water	7470A	466183
LCS 400-466183/15-A	Lab Control Sample	Total/NA	Water	7470A	466183
400-179448-1 MS	MW-200	Total/NA	Water	7470A	466183
400-179448-1 MSD	MW-200	Total/NA	Water	7470A	466183

Analysis Batch: 467060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total Recoverable	Water	6020	465909
400-179448-2	MW-201	Total Recoverable	Water	6020	465909
400-179448-3	MW-202	Total Recoverable	Water	6020	465909
400-179448-4	MW-203	Total Recoverable	Water	6020	465909
400-179448-5	MW-204	Total Recoverable	Water	6020	465909
400-179448-6	MW-205	Total Recoverable	Water	6020	465909
400-179448-7	MW-206	Total Recoverable	Water	6020	465909
400-179448-8	DUP-1	Total Recoverable	Water	6020	465909
400-179448-9	FB-01	Total Recoverable	Water	6020	465909
400-179448-10	EB-01	Total Recoverable	Water	6020	465909
MB 400-465909/1-A	Method Blank	Total Recoverable	Water	6020	465909

Prep Batch: 472739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-3	MW-202	Total Recoverable	Water	3005A	
400-179448-4	MW-203	Total Recoverable	Water	3005A	
400-179448-9	FB-01	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 472739 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-10	EB-01	Total Recoverable	Water	3005A	
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179658-B-4-D MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179658-B-4-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 473089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-3	MW-202	Total Recoverable	Water	6020	472739
400-179448-9	FB-01	Total Recoverable	Water	6020	472739
400-179448-10	EB-01	Total Recoverable	Water	6020	472739
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	6020	472739
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	6020	472739
400-179658-B-4-D MS	Matrix Spike	Total Recoverable	Water	6020	472739
400-179658-B-4-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	472739

Analysis Batch: 473236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-4	MW-203	Total Recoverable	Water	6020	472739
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	6020	472739
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	6020	472739
400-179658-B-4-D MS	Matrix Spike	Total Recoverable	Water	6020	472739
400-179658-B-4-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	472739

General Chemistry

Analysis Batch: 465735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-179448-2	MW-201	Total/NA	Water	SM 4500 Cl- E	
400-179448-3	MW-202	Total/NA	Water	SM 4500 Cl- E	
400-179448-4	MW-203	Total/NA	Water	SM 4500 Cl- E	
400-179448-5	MW-204	Total/NA	Water	SM 4500 Cl- E	
400-179448-6	MW-205	Total/NA	Water	SM 4500 Cl- E	
400-179448-7	MW-206	Total/NA	Water	SM 4500 Cl- E	
400-179448-8	DUP-1	Total/NA	Water	SM 4500 Cl- E	
400-179448-9	FB-01	Total/NA	Water	SM 4500 Cl- E	
400-179448-10	EB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-465735/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-465735/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-465735/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179448-1 MS	MW-200	Total/NA	Water	SM 4500 Cl- E	
400-179448-1 MSD	MW-200	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 465781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	SM 2540C	
400-179448-2	MW-201	Total/NA	Water	SM 2540C	
400-179448-3	MW-202	Total/NA	Water	SM 2540C	
400-179448-4	MW-203	Total/NA	Water	SM 2540C	
400-179448-5	MW-204	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 465781 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-6	MW-205	Total/NA	Water	SM 2540C	
400-179448-7	MW-206	Total/NA	Water	SM 2540C	
400-179448-8	DUP-1	Total/NA	Water	SM 2540C	
400-179448-9	FB-01	Total/NA	Water	SM 2540C	
400-179448-10	EB-01	Total/NA	Water	SM 2540C	
MB 400-465781/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-465781/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179415-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	
400-179415-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 466564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-3	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-179448-4	MW-203	Total/NA	Water	SM 4500 SO4 E	
400-179448-5	MW-204	Total/NA	Water	SM 4500 SO4 E	
400-179448-6	MW-205	Total/NA	Water	SM 4500 SO4 E	
400-179448-7	MW-206	Total/NA	Water	SM 4500 SO4 E	
400-179448-9	FB-01	Total/NA	Water	SM 4500 SO4 E	
400-179448-10	EB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-466564/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-466564/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-466564/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179448-3 MS	MW-202	Total/NA	Water	SM 4500 SO4 E	
400-179448-3 MSD	MW-202	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 467473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	SM 4500 F C	
400-179448-2	MW-201	Total/NA	Water	SM 4500 F C	
400-179448-3	MW-202	Total/NA	Water	SM 4500 F C	
400-179448-4	MW-203	Total/NA	Water	SM 4500 F C	
400-179448-5	MW-204	Total/NA	Water	SM 4500 F C	
400-179448-6	MW-205	Total/NA	Water	SM 4500 F C	
400-179448-7	MW-206	Total/NA	Water	SM 4500 F C	
400-179448-8	DUP-1	Total/NA	Water	SM 4500 F C	
400-179448-9	FB-01	Total/NA	Water	SM 4500 F C	
400-179448-10	EB-01	Total/NA	Water	SM 4500 F C	
MB 400-467473/33	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-467473/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 400-467473/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-179448-1 MS	MW-200	Total/NA	Water	SM 4500 F C	
400-179448-1 MSD	MW-200	Total/NA	Water	SM 4500 F C	

Analysis Batch: 467607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	SM 4500 SO4 E	
400-179448-2	MW-201	Total/NA	Water	SM 4500 SO4 E	
400-179448-8	DUP-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-467607/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-467607/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-467607/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 467607 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-180149-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-180149-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 470839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	Field Sampling	
400-179448-2	MW-201	Total/NA	Water	Field Sampling	
400-179448-3	MW-202	Total/NA	Water	Field Sampling	
400-179448-4	MW-203	Total/NA	Water	Field Sampling	
400-179448-5	MW-204	Total/NA	Water	Field Sampling	
400-179448-6	MW-205	Total/NA	Water	Field Sampling	
400-179448-7	MW-206	Total/NA	Water	Field Sampling	
400-179448-8	DUP-1	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-465909/1-A
Matrix: Water
Analysis Batch: 467060

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465909

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/13/19 22:05	11/21/19 19:19	1
Barium	0.00014	U	0.00050	0.00014	mg/L		11/13/19 22:05	11/21/19 19:19	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/13/19 22:05	11/21/19 19:19	1
Boron	0.00768	I	0.010	0.0036	mg/L		11/13/19 22:05	11/21/19 19:19	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/13/19 22:05	11/21/19 19:19	1
Calcium	0.025	U	0.050	0.025	mg/L		11/13/19 22:05	11/21/19 19:19	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/13/19 22:05	11/21/19 19:19	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/13/19 22:05	11/21/19 19:19	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/13/19 22:05	11/21/19 19:19	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/13/19 22:05	11/21/19 19:19	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/13/19 22:05	11/21/19 19:19	1

Lab Sample ID: LCS 400-465909/2-A ^5
Matrix: Water
Analysis Batch: 466365

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0527		mg/L		105	80 - 120
Barium	0.0500	0.0492		mg/L		98	80 - 120
Beryllium	0.0500	0.0518		mg/L		104	80 - 120
Boron	0.100	0.105		mg/L		105	80 - 120
Cadmium	0.0500	0.0547		mg/L		109	80 - 120
Calcium	5.00	4.67		mg/L		93	80 - 120
Cobalt	0.0500	0.0501		mg/L		100	80 - 120
Lead	0.0500	0.0460		mg/L		92	80 - 120
Lithium	0.0500	0.0526		mg/L		105	80 - 120
Selenium	0.0500	0.0505		mg/L		101	80 - 120
Thallium	0.0100	0.0114		mg/L		114	80 - 120

Lab Sample ID: 400-179447-D-1-B MS ^5
Matrix: Water
Analysis Batch: 466365

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 465909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0019	V	0.0500	0.0551		mg/L		107	75 - 125
Barium	0.043		0.0500	0.0939		mg/L		101	75 - 125
Beryllium	0.00017	U	0.0500	0.0503		mg/L		101	75 - 125
Cadmium	0.00053	I	0.0500	0.0536		mg/L		106	75 - 125
Cobalt	0.00059	I	0.0500	0.0509		mg/L		101	75 - 125
Lead	0.00097	I	0.0500	0.0486		mg/L		95	75 - 125
Lithium	0.0019	U	0.0500	0.0533		mg/L		107	75 - 125
Selenium	0.011		0.0500	0.0656		mg/L		109	75 - 125
Thallium	0.0027	V	0.0100	0.0117	V	mg/L		90	75 - 125

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

Lab Sample ID: 400-179447-D-1-C MSD ^5
Matrix: Water
Analysis Batch: 466365

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 465909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0019	V	0.0500	0.0578		mg/L		112	75 - 125	5	20
Barium	0.043		0.0500	0.0974		mg/L		108	75 - 125	4	20
Beryllium	0.00017	U	0.0500	0.0504		mg/L		101	75 - 125	0	20
Cadmium	0.00053	I	0.0500	0.0555		mg/L		110	75 - 125	4	20
Cobalt	0.00059	I	0.0500	0.0526		mg/L		104	75 - 125	3	20
Lead	0.00097	I	0.0500	0.0495		mg/L		97	75 - 125	2	20
Lithium	0.0019	U	0.0500	0.0569		mg/L		114	75 - 125	7	20
Selenium	0.011		0.0500	0.0655		mg/L		109	75 - 125	0	20
Thallium	0.0027	V	0.0100	0.0122	V	mg/L		96	75 - 125	4	20

Lab Sample ID: MB 400-472739/1-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00551	I	0.010	0.0036	mg/L		01/02/20 16:31	01/06/20 18:21	1

Lab Sample ID: MB 400-472739/1-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00606	I	0.010	0.0036	mg/L		01/02/20 16:31	01/07/20 20:33	1

Lab Sample ID: LCS 400-472739/2-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.111		mg/L		111	80 - 120

Lab Sample ID: LCS 400-472739/2-A
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.111		mg/L		111	80 - 120

Lab Sample ID: 400-179658-B-4-D MS
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.026	V	0.100	0.140		mg/L		114	75 - 125

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

Lab Sample ID: 400-179658-B-4-D MS
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.029	V	0.100	0.123		mg/L		94	75 - 125

Lab Sample ID: 400-179658-B-4-E MSD
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.026	V	0.100	0.139		mg/L		113	75 - 125	0	20

Lab Sample ID: 400-179658-B-4-E MSD
Matrix: Water
Analysis Batch: 473236

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.029	V	0.100	0.124		mg/L		95	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-466183/14-A
Matrix: Water
Analysis Batch: 466958

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 466183

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		11/20/19 13:51	11/21/19 09:52	1

Lab Sample ID: LCS 400-466183/15-A
Matrix: Water
Analysis Batch: 466958

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 466183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000982		mg/L		98	80 - 120

Lab Sample ID: 400-179448-1 MS
Matrix: Water
Analysis Batch: 466958

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 466183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00056		0.00201	0.00238		mg/L		90	80 - 120

Lab Sample ID: 400-179448-1 MSD
Matrix: Water
Analysis Batch: 466958

Client Sample ID: MW-200
Prep Type: Total/NA
Prep Batch: 466183

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00056		0.00201	0.00240		mg/L		91	80 - 120	1	20

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

Lab Sample ID: MB 400-465781/1
Matrix: Water
Analysis Batch: 465781

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/13/19 10:17	1

Lab Sample ID: LCS 400-465781/2
Matrix: Water
Analysis Batch: 465781

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	296		mg/L		101	78 - 122

Lab Sample ID: 400-179415-A-2 DU
Matrix: Water
Analysis Batch: 465781

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	390		574	J3	mg/L		38	5

Lab Sample ID: 400-179415-A-8 DU
Matrix: Water
Analysis Batch: 465781

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	430		448		mg/L		3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-465735/6
Matrix: Water
Analysis Batch: 465735

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/12/19 23:08	1

Lab Sample ID: LCS 400-465735/7
Matrix: Water
Analysis Batch: 465735

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	33.1		mg/L		110	90 - 110

Lab Sample ID: MRL 400-465735/3
Matrix: Water
Analysis Batch: 465735

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.74	I	mg/L		87	50 - 150

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-179448-1 MS
Matrix: Water
Analysis Batch: 465735

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	280		10.0	284	J3	mg/L		51	73 - 120

Lab Sample ID: 400-179448-1 MSD
Matrix: Water
Analysis Batch: 465735

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	280		10.0	284	J3	mg/L		43	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-467473/33
Matrix: Water
Analysis Batch: 467473

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			11/25/19 17:15	1

Lab Sample ID: LCS 400-467473/4
Matrix: Water
Analysis Batch: 467473

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.12		mg/L		103	90 - 110

Lab Sample ID: MRL 400-467473/6
Matrix: Water
Analysis Batch: 467473

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.500	0.557		mg/L		111	

Lab Sample ID: 400-179448-1 MS
Matrix: Water
Analysis Batch: 467473

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.072	I	1.00	1.02		mg/L		95	75 - 125

Lab Sample ID: 400-179448-1 MSD
Matrix: Water
Analysis Batch: 467473

Client Sample ID: MW-200
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.072	I	1.00	1.04		mg/L		97	75 - 125	2	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-466564/6
Matrix: Water
Analysis Batch: 466564

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/18/19 15:20	1

Lab Sample ID: LCS 400-466564/7
Matrix: Water
Analysis Batch: 466564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	16.2		mg/L		108	90 - 110

Lab Sample ID: MRL 400-466564/3
Matrix: Water
Analysis Batch: 466564

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.69		mg/L		114	50 - 150

Lab Sample ID: 400-179448-3 MS
Matrix: Water
Analysis Batch: 466564

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	26		10.0	34.2		mg/L		82	77 - 128

Lab Sample ID: 400-179448-3 MSD
Matrix: Water
Analysis Batch: 466564

Client Sample ID: MW-202
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	26		10.0	33.8		mg/L		78	77 - 128	1	5

Lab Sample ID: MB 400-467607/6
Matrix: Water
Analysis Batch: 467607

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/26/19 12:34	1

Lab Sample ID: LCS 400-467607/7
Matrix: Water
Analysis Batch: 467607

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.8		mg/L		105	90 - 110

Lab Sample ID: MRL 400-467607/3
Matrix: Water
Analysis Batch: 467607

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.62		mg/L		112	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: 400-180149-D-1 MS
Matrix: Water
Analysis Batch: 467607

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	71		10.0	78.9		mg/L		84	77 - 128		

Lab Sample ID: 400-180149-D-1 MSD
Matrix: Water
Analysis Batch: 467607

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	71		10.0	79.6		mg/L		91	77 - 128	1	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Brett Sikes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88348-23630.1
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Downgradient D	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179448 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
MW-200	11/12/19	1003	G	Water			X	X	X	X		
MW-201	11/12/19	0935		Water								
MW-202	11/12/19	0920		Water								
MW-203	11/12/19	1110		Water								
MW-204	11/12/19	1025		Water								
MW-205	11/12/19	1117		Water								
MW-206	11/12/19	0848		Water								
DUP-1	11/12/19	0935		Water								
FB-01	11/12/19	0915		Water								
EB-01	11/12/19	0945	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/12/19 1314	RDT	Kathy R Avery	11-12-19 1314	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 9.6, 7.6, 6.0°C IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179448-1
SDG Number: Downgradient D

Login Number: 179448
List Number: 1
Creator: Treadaway, Kristen N

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.6°C, 7.6°C, 6.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-1
SDG: Downgradient D

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179448-2
Laboratory Sample Delivery Group: Downgradient D
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/11/2019 4:13:59 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179448-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179448-2

RAD

Methods 9315: Radium-226 Prep Batch 160-450715. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-179448-1), MW-201 (400-179448-2), MW-202 (400-179448-3), MW-203 (400-179448-4), MW-204 (400-179448-5), MW-205 (400-179448-6), MW-206 (400-179448-7), DUP-1 (400-179448-8), FB-01 (400-179448-9), EB-01 (400-179448-10), (LCS 160-450715/1-A), (MB 160-450715/22-A), (160-36357-C-4-A), (160-36357-C-4-B MS) and (160-36357-A-4-A MSD)

Methods 9320: Radium-228 Prep Batch 160-450716. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-200 (400-179448-1), MW-201 (400-179448-2), MW-202 (400-179448-3), MW-203 (400-179448-4), MW-204 (400-179448-5), MW-205 (400-179448-6), MW-206 (400-179448-7), DUP-1 (400-179448-8), FB-01 (400-179448-9), EB-01 (400-179448-10), (LCS 160-450716/1-A), (MB 160-450716/22-A), (160-36357-C-4-C), (160-36357-C-4-D MS) and (160-36357-A-4-B MSD)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179448-1	MW-200	Water	11/12/19 10:03	11/12/19 13:14	
400-179448-2	MW-201	Water	11/12/19 09:35	11/12/19 13:14	
400-179448-3	MW-202	Water	11/12/19 09:20	11/12/19 13:14	
400-179448-4	MW-203	Water	11/12/19 11:10	11/12/19 13:14	
400-179448-5	MW-204	Water	11/12/19 10:25	11/12/19 13:14	
400-179448-6	MW-205	Water	11/12/19 11:17	11/12/19 13:14	
400-179448-7	MW-206	Water	11/12/19 08:48	11/12/19 13:14	
400-179448-8	DUP-1	Water	11/12/19 09:35	11/12/19 13:14	
400-179448-9	FB-01	Water	11/12/19 09:15	11/12/19 13:14	
400-179448-10	EB-01	Water	11/12/19 09:45	11/12/19 13:14	

Client Sample ID: MW-200

Date Collected: 11/12/19 10:03
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.27		0.304	0.424	1.00	0.131	pCi/L	11/15/19 18:15	12/09/19 09:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/15/19 18:15*	*12/09/19 09:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.13		0.419	0.509	1.00	0.361	pCi/L	11/15/19 18:57	11/25/19 09:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*
Y Carrier	*84.5*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	6.40		0.518	0.662	5.00	0.361	pCi/L		12/11/19 08:34	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: MW-201

Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.17		0.305	0.417	1.00	0.136	pCi/L	11/15/19 18:15	12/09/19 09:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*40 - 110*	*11/15/19 18:15*	*12/09/19 09:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.15		0.501	0.689	1.00	0.342	pCi/L	11/15/19 18:57	11/25/19 09:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*
Y Carrier	*88.2*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	8.32		0.587	0.805	5.00	0.342	pCi/L		12/11/19 08:34	1

Client Sample ID: MW-202

Date Collected: 11/12/19 09:20
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.44		0.203	0.241	1.00	0.0993	pCi/L	11/15/19 18:15	12/09/19 11:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.4*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:15*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.30		0.340	0.360	1.00	0.420	pCi/L	11/15/19 18:57	11/25/19 09:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.4*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.74		0.396	0.433	5.00	0.420	pCi/L		12/11/19 08:34	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: MW-203

Date Collected: 11/12/19 11:10
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.23		0.194	0.224	1.00	0.111	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.65		0.474	0.581	1.00	0.409	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.89		0.512	0.623	5.00	0.409	pCi/L		12/11/19 08:34	1

Client Sample ID: MW-204

Date Collected: 11/12/19 10:25
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.11		0.175	0.201	1.00	0.111	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	9.63		0.635	1.09	1.00	0.347	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*87.9*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	10.7		0.659	1.11	5.00	0.347	pCi/L		12/11/19 08:34	1

Client Sample ID: MW-205

Date Collected: 11/12/19 11:17
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.59		0.263	0.351	1.00	0.103	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.19		0.455	0.542	1.00	0.464	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.78		0.526	0.646	5.00	0.464	pCi/L		12/11/19 08:34	1

Client Sample ID: MW-206

Date Collected: 11/12/19 08:48
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.22		0.300	0.417	1.00	0.129	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.92		0.473	0.595	1.00	0.415	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*82.2*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.14		0.560	0.727	5.00	0.415	pCi/L		12/11/19 08:34	1

Client Sample ID: DUP-1

Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.83		0.294	0.389	1.00	0.121	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.4*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.86		0.542	0.702	1.00	0.422	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.4*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	7.69		0.617	0.803	5.00	0.422	pCi/L		12/11/19 08:34	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: FB-01
Date Collected: 11/12/19 09:15
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0473	U	0.0411	0.0413	1.00	0.109	pCi/L	11/15/19 18:15	12/09/19 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:16*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.000	U	0.219	0.219	1.00	0.393	pCi/L	11/15/19 18:57	11/25/19 09:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*
Y Carrier	*83.7*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0473	U	0.223	0.223	5.00	0.393	pCi/L		12/11/19 08:34	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: EB-01
Date Collected: 11/12/19 09:45
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-10
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0212	U	0.0428	0.0429	1.00	0.0782	pCi/L	11/15/19 18:15	12/09/19 11:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:17*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.231	0.233	1.00	0.372	pCi/L	11/15/19 18:57	11/25/19 09:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:08*	*1*
Y Carrier	*82.2*		*40 - 110*	*11/15/19 18:57*	*11/25/19 09:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.276	U	0.235	0.237	5.00	0.372	pCi/L		12/11/19 08:34	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: MW-200
Date Collected: 11/12/19 10:03
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 09:21	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: MW-201
Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 09:21	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: MW-202
Date Collected: 11/12/19 09:20
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:15	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:06	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: MW-203
Date Collected: 11/12/19 11:10
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: MW-204
Date Collected: 11/12/19 10:25
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: MW-205
Date Collected: 11/12/19 11:17
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: MW-206
Date Collected: 11/12/19 08:48
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: DUP-1
Date Collected: 11/12/19 09:35
Date Received: 11/12/19 13:14

Lab Sample ID: 400-179448-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Client Sample ID: FB-01

Lab Sample ID: 400-179448-9

Date Collected: 11/12/19 09:15
Date Received: 11/12/19 13:14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:16	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:07	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Client Sample ID: EB-01

Lab Sample ID: 400-179448-10

Date Collected: 11/12/19 09:45
Date Received: 11/12/19 13:14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			450715	11/15/19 18:15	ORM	TAL SL
Total/NA	Analysis	9315		1	453471	12/09/19 11:17	KLS	TAL SL
Total/NA	Prep	PrecSep_0			450716	11/15/19 18:57	ORM	TAL SL
Total/NA	Analysis	9320		1	451882	11/25/19 09:08	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	453916	12/11/19 08:34	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Rad

Prep Batch: 450715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	PrecSep-21	
400-179448-2	MW-201	Total/NA	Water	PrecSep-21	
400-179448-3	MW-202	Total/NA	Water	PrecSep-21	
400-179448-4	MW-203	Total/NA	Water	PrecSep-21	
400-179448-5	MW-204	Total/NA	Water	PrecSep-21	
400-179448-6	MW-205	Total/NA	Water	PrecSep-21	
400-179448-7	MW-206	Total/NA	Water	PrecSep-21	
400-179448-8	DUP-1	Total/NA	Water	PrecSep-21	
400-179448-9	FB-01	Total/NA	Water	PrecSep-21	
400-179448-10	EB-01	Total/NA	Water	PrecSep-21	
MB 160-450715/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-450715/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-36357-A-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	
160-36357-C-4-B MS	Matrix Spike	Total/NA	Water	PrecSep-21	

Prep Batch: 450716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179448-1	MW-200	Total/NA	Water	PrecSep_0	
400-179448-2	MW-201	Total/NA	Water	PrecSep_0	
400-179448-3	MW-202	Total/NA	Water	PrecSep_0	
400-179448-4	MW-203	Total/NA	Water	PrecSep_0	
400-179448-5	MW-204	Total/NA	Water	PrecSep_0	
400-179448-6	MW-205	Total/NA	Water	PrecSep_0	
400-179448-7	MW-206	Total/NA	Water	PrecSep_0	
400-179448-8	DUP-1	Total/NA	Water	PrecSep_0	
400-179448-9	FB-01	Total/NA	Water	PrecSep_0	
400-179448-10	EB-01	Total/NA	Water	PrecSep_0	
MB 160-450716/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-450716/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-36357-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	
160-36357-C-4-D MS	Matrix Spike	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-450715/22-A
Matrix: Water
Analysis Batch: 453471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450715

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.06837	U	0.0460	0.0464	1.00	0.125	pCi/L	11/15/19 18:15	12/09/19 11:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*11/15/19 18:15*	*12/09/19 11:17*	*1*

Lab Sample ID: LCS 160-450715/1-A
Matrix: Water
Analysis Batch: 453471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450715

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	11.33		1.17	1.00	0.140	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.8*		*40 - 110*

Lab Sample ID: 160-36357-A-4-A MSD
Matrix: Water
Analysis Batch: 453471

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 450715

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.602		11.3	12.03		1.25	1.00	0.129	pCi/L	101	75 - 138	0.17	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*81.5*		*40 - 110*

Lab Sample ID: 160-36357-C-4-B MS
Matrix: Water
Analysis Batch: 453471

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 450715

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.602		11.3	11.62		1.18	1.00	0.0927	pCi/L	97	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-450716/22-A
Matrix: Water
Analysis Batch: 451882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450716

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.01009	U	0.246	0.246	1.00	0.444	pCi/L	11/15/19 18:57	11/25/19 09:08	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110	11/15/19 18:57	11/25/19 09:08	1
Y Carrier	77.4		40 - 110	11/15/19 18:57	11/25/19 09:08	1

Lab Sample ID: LCS 160-450716/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 451884 — **Prep Batch: 450716**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.36	10.40		1.22	1.00	0.470	pCi/L	111	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.8		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: 160-36357-A-4-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 451884 — **Prep Batch: 450716**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.576		9.36	10.64		1.25	1.00	0.483	pCi/L	107	45 - 150	0.03	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	81.5		40 - 110
Y Carrier	86.0		40 - 110

Lab Sample ID: 160-36357-C-4-D MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 451884 — **Prep Batch: 450716**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.576		9.36	10.72		1.22	1.00	0.415	pCi/L	108	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	92.8		40 - 110
Y Carrier	86.0		40 - 110

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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Client Information	Sampler: Brett Sikes	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88348-23630.1
Client Contact: Mr. Mike Markey	Phone: 850 380 3458	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: Downgradient D	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179448 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
MW-200	11/12/19	1003	G	Water			X	X	X	X		
MW-201	11/12/19	0935		Water								
MW-202	11/12/19	0920		Water								
MW-203	11/12/19	1110		Water								
MW-204	11/12/19	1025		Water								
MW-205	11/12/19	1117		Water								
MW-206	11/12/19	0848		Water								
DUP-1	11/12/19	0935		Water								
FB-01	11/12/19	0915		Water								
EB-01	11/12/19	0945	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/12/19 1314	RDT	Kathy R Avery	11-12-19 1314	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 9.6, 7.6, 6.0°C IR7

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179448-2
SDG Number: Downgradient D

Login Number: 179448
List Number: 1
Creator: Treadaway, Kristen N

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.6°C, 7.6°C, 6.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179448-2
SDG Number: Downgradient D

Login Number: 179448
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/14/19 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179448-2
SDG: Downgradient D

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179658-1
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 4:16:31 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179658-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179658-1

Metals

Method 6020: The method blank for preparation batch 400-466596 and analytical batch 400-466869 contained Lead above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020: The continuing calibration verification (CCV) associated with batch 400-467060 recovered above the upper control limit for Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: EB-01 (400-179658-8) and FB-01 (400-179658-9).

Method 6020: The continuing calibration verification (CCV) associated with batch 400-467338 recovered above the upper control limit for Beryllium and Selenium. The samples associated with this CCV were confirmed with previous analysis; therefore, the data have been reported. The following samples are impacted: GSA-2S (400-179658-3), PZ-201D (400-179658-4), PZ-203D (400-179658-5), DUP-01 (400-179658-7), EB-01 (400-179658-8) and FB-01 (400-179658-9).

Method 6020: The continuing calibration verification (CCV) associated with batch 400-467512 recovered above the upper control limit for Boron. The samples associated with this CCV were over 10x the result for the affected analytes; therefore, the data have been reported. The following sample is impacted: PZ-200S (400-179658-1).

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-466596 and analytical batch 400-467060 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The analyte present in the original samples are greater than 4 times the matrix spike concentration; therefore, control limits are not applicable for the following elements: Boron and Calcium. (400-179658-B-1-B MS) and (400-179658-B-1-C MSD)

General Chemistry

Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-466529 was outside control limits. Sample non-homogeneity is suspected.

Method SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 400-469081 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 4500 Cl- E: The following sample was diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-179658-1). Elevated reporting limits (RLs) are provided.

Methods SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-180385-B-1 MS), (400-180385-B-1 MSD), (400-180442-P-1 MS) and (400-180442-P-1 MSD)

Methods SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-468436 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: PZ-200S (400-179658-1), (400-180385-B-1), (400-180385-B-1 MS), (400-180385-B-1 MSD), (400-180442-P-1), (400-180442-P-1 MS) and (400-180442-P-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S — Lab Sample ID: 400-179658-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0019		0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.056		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.00011	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	35		1.0	0.36	mg/L	100		6020	Total Recoverable
Cadmium	0.00060	I	0.0025	0.00028	mg/L	5		6020	Total Recoverable
Calcium	620		2.5	1.3	mg/L	50		6020	Total Recoverable
Cobalt	0.036		0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.0037	V	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.00095	I	0.0010	0.00038	mg/L	1		6020	Total Recoverable
Selenium	0.0076		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.00043	I	0.00050	0.00012	mg/L	5		6020	Total Recoverable
Mercury	0.00019	I	0.00020	0.000070	mg/L	1		7470A	Total/NA
Total Dissolved Solids	3600		100	68	mg/L	1		SM 2540C	Total/NA
Chloride	1600		200	140	mg/L	100		SM 4500 Cl- E	Total/NA
Fluoride	0.050	I V	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	230		50	14	mg/L	10		SM 4500 SO4 E	Total/NA
Field pH	4.53				SU	1		Field Sampling	Total/NA

Client Sample ID: GSA-2S — Lab Sample ID: 400-179658-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.000035	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	1.0		0.050	0.018	mg/L	5		6020	Total Recoverable
Calcium	21		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.00056	I	0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.00046	I V	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.00038	I	0.0010	0.00038	mg/L	1		6020	Total Recoverable
Selenium	0.0013		0.0013	0.00082	mg/L	5		6020	Total Recoverable
Thallium	0.000051	I	0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	88		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	27		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	22		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.53				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-201D — Lab Sample ID: 400-179658-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.062		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.047	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	6.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.00017	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Lithium	0.011		0.0050	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	2.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	I V	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Field pH	6.85				SU	1		Field Sampling	Total/NA

Client Sample ID: PZ-203D — Lab Sample ID: 400-179658-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00020	I	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.037		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.036	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	7.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Lithium	0.018		0.0050	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		10	6.8	mg/L	1		SM 2540C	Total/NA
Chloride	4.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.6	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.59				SU	1		Field Sampling	Total/NA

Client Sample ID: GE-1D — Lab Sample ID: 400-179658-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00029		0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.023		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Beryllium	0.00012	I	0.00050	0.000034	mg/L	1		6020	Total Recoverable
Boron	0.0074	I	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	4.7		0.25	0.13	mg/L	5		6020	Total Recoverable
Cobalt	0.0025		0.0025	0.00056	mg/L	5		6020	Total Recoverable
Lead	0.0010	I V	0.0013	0.00029	mg/L	5		6020	Total Recoverable
Lithium	0.0037	I	0.0050	0.0019	mg/L	5		6020	Total Recoverable
Selenium	0.00021	I	0.00025	0.00016	mg/L	1		6020	Total Recoverable
Thallium	0.000043	I	0.00010	0.000024	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	120		10	6.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D (Continued) — Lab Sample ID: 400-179658-6

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.82				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-179658-7

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00044	I	0.0013	0.00039	mg/L	5		6020	Total Recoverable
Barium	0.037		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.017		0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	8.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Lead	0.000078	I	0.00025	0.000058	mg/L	1		6020	Total Recoverable
Lithium	0.018		0.0050	0.0019	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	6.59				SU	1		Field Sampling	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 400-179658-8

No Detections.

Client Sample ID: FB-01 — Lab Sample ID: 400-179658-9

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.00035	I	0.00050	0.00014	mg/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179658-1	PZ-200S	Water	11/15/19 09:02	11/15/19 10:27	
400-179658-3	GSA-2S	Water	11/15/19 08:30	11/15/19 10:27	
400-179658-4	PZ-201D	Water	11/14/19 14:35	11/15/19 10:27	
400-179658-5	PZ-203D	Water	11/14/19 09:05	11/15/19 10:27	
400-179658-6	GE-1D	Water	11/14/19 15:00	11/15/19 10:27	
400-179658-7	DUP-01	Water	11/14/19 08:05	11/15/19 10:27	
400-179658-8	EB-01	Water	11/14/19 10:00	11/15/19 10:27	
400-179658-9	FB-01	Water	11/15/19 08:50	11/15/19 10:27	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S

Date Collected: 11/15/19 09:02
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0013	0.00039	mg/L		11/19/19 16:35	11/20/19 15:26	5
Barium	0.056		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 15:26	5
Beryllium	0.00011	I	0.00050	0.000034	mg/L		11/19/19 16:35	11/29/19 16:11	1
Boron	35		1.0	0.36	mg/L		11/19/19 16:35	11/25/19 23:22	100
Cadmium	0.00060	I	0.0025	0.00028	mg/L		11/19/19 16:35	11/20/19 15:26	5
Calcium	620		2.5	1.3	mg/L		11/19/19 16:35	11/25/19 23:17	50
Cobalt	0.036		0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 15:26	5
Lead	0.0037	V	0.0013	0.00029	mg/L		11/19/19 16:35	11/20/19 15:26	5
Lithium	0.00095	I	0.0010	0.00038	mg/L		11/19/19 16:35	11/21/19 22:04	1
Selenium	0.0076		0.0013	0.00082	mg/L		11/19/19 16:35	11/20/19 15:26	5
Thallium	0.00043	I	0.00050	0.00012	mg/L		11/19/19 16:35	11/20/19 15:26	5

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00019	I	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 12:54	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3600		100	68	mg/L			11/19/19 11:50	1
Chloride	1600		200	140	mg/L			12/04/19 16:01	100
Fluoride	0.050	I V	0.10	0.032	mg/L			12/06/19 14:45	1
Sulfate	230		50	14	mg/L			12/03/19 11:15	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.53				SU			11/15/19 09:02	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: GSA-2S

Date Collected: 11/15/19 08:30
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-3

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 22:24	1
Barium	**0.015**		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 16:06	5
Beryllium	**0.000035**	**I**	0.00050	0.000034	mg/L		01/02/20 16:31	01/06/20 19:45	1
Boron	**1.0**		0.050	0.018	mg/L		11/19/19 16:35	11/24/19 20:02	5
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/19/19 16:35	11/20/19 16:06	5
Calcium	**21**		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 16:06	5
Cobalt	**0.00056**	**I**	0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 16:06	5
Lead	**0.00046**	**I V**	0.0013	0.00029	mg/L		11/19/19 16:35	11/20/19 16:06	5
Lithium	**0.00038**	**I**	0.0010	0.00038	mg/L		11/19/19 16:35	11/21/19 22:24	1
Selenium	**0.0013**		0.0013	0.00082	mg/L		11/19/19 16:35	11/20/19 16:06	5
Thallium	**0.000051**	**I**	0.00010	0.000024	mg/L		11/19/19 16:35	11/24/19 19:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 12:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**88**		10	6.8	mg/L			11/19/19 11:50	1
Chloride	**27**		2.0	1.4	mg/L			12/04/19 14:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 14:58	1
Sulfate	**22**		5.0	1.4	mg/L			12/03/19 10:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.53**				SU			11/15/19 08:30	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-201D

Date Collected: 11/14/19 14:35
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-4

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 22:29	1
Barium	**0.062**		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 16:11	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		01/02/20 16:31	01/06/20 19:17	1
Boron	**0.047**	**V**	0.010	0.0036	mg/L		11/19/19 16:35	11/24/19 20:07	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 22:29	1
Calcium	**6.0**		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 16:11	5
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/19/19 16:35	11/21/19 22:29	1
Lead	**0.00017**	**I**	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 22:29	1
Lithium	**0.011**		0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 16:11	5
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 20:07	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/21/19 22:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**42**		10	6.8	mg/L			11/19/19 10:59	1
Chloride	**2.7**		2.0	1.4	mg/L			12/04/19 14:04	1
Fluoride	**0.040**	**I V**	0.10	0.032	mg/L			12/06/19 15:02	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.85**				SU			11/14/19 14:35	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-203D

Date Collected: 11/14/19 09:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-5

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00020**	**I**	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 22:34	1
Barium	**0.037**		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 16:16	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		01/02/20 16:31	01/06/20 19:01	1
Boron	**0.036**	**V**	0.010	0.0036	mg/L		11/19/19 16:35	11/24/19 20:17	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 22:34	1
Calcium	**7.8**		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 16:16	5
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/19/19 16:35	11/21/19 22:34	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 22:34	1
Lithium	**0.018**		0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 16:16	5
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 20:17	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/21/19 22:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:05	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**20**		10	6.8	mg/L			11/19/19 11:50	1
Chloride	**4.3**		2.0	1.4	mg/L			12/04/19 14:04	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 15:05	1
Sulfate	**1.6**	**I**	5.0	1.4	mg/L			12/03/19 10:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.59**				SU			11/14/19 09:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D

Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-6

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00029		0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 22:39	1
Barium	0.023		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 16:21	5
Beryllium	0.00012	I	0.00050	0.000034	mg/L		11/19/19 16:35	11/24/19 20:37	1
Boron	0.0074	I	0.010	0.0036	mg/L		11/19/19 16:35	11/27/19 15:35	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 22:39	1
Calcium	4.7		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 16:21	5
Cobalt	0.0025		0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 16:21	5
Lead	0.0010	I V	0.0013	0.00029	mg/L		11/19/19 16:35	11/20/19 16:21	5
Lithium	0.0037	I	0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 16:21	5
Selenium	0.00021	I	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 20:37	1
Thallium	0.000043	I	0.00010	0.000024	mg/L		11/19/19 16:35	11/24/19 20:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:11	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		10	6.8	mg/L			11/19/19 11:50	1
Chloride	20		2.0	1.4	mg/L			12/04/19 14:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 15:09	1
Sulfate	3.5	I	5.0	1.4	mg/L			12/03/19 10:56	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.82				SU			11/14/19 15:00	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-01

Date Collected: 11/14/19 08:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-7

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00044**	**I**	0.0013	0.00039	mg/L		11/19/19 16:35	11/20/19 16:26	5
Barium	**0.037**		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 16:26	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/19/19 16:35	11/27/19 15:40	1
Boron	**0.017**		0.010	0.0036	mg/L		11/19/19 16:35	11/27/19 15:40	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 22:54	1
Calcium	**8.0**		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 16:26	5
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/19/19 16:35	11/21/19 22:54	1
Lead	**0.000078**	**I**	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 22:54	1
Lithium	**0.018**		0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 16:26	5
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 20:47	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/21/19 22:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**32**		5.0	3.4	mg/L			11/20/19 10:21	1
Chloride	**3.2**		2.0	1.4	mg/L			12/04/19 14:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 15:13	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:56	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.59**				SU			11/14/19 08:05	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: EB-01

Date Collected: 11/14/19 10:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-8

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 23:00	1
Barium	0.00014	U	0.00050	0.00014	mg/L		11/19/19 16:35	11/21/19 23:00	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/19/19 16:35	11/27/19 15:45	1
Boron	0.0036	U	0.010	0.0036	mg/L		11/19/19 16:35	11/27/19 15:45	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 23:00	1
Calcium	0.025	U	0.050	0.025	mg/L		11/19/19 16:35	11/25/19 23:47	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/19/19 16:35	11/21/19 23:00	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 23:00	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/19/19 16:35	11/21/19 23:00	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 20:57	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/21/19 23:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:15	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6.8	U	10	6.8	mg/L			11/19/19 11:50	1
Chloride	1.4	U	2.0	1.4	mg/L			12/04/19 14:07	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 15:17	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:59	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: FB-01

Date Collected: 11/15/19 08:50
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-9

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 23:05	1
Barium	**0.00035**	**I**	0.00050	0.00014	mg/L		11/19/19 16:35	11/21/19 23:05	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/19/19 16:35	11/27/19 15:50	1
Boron	0.0036	U	0.010	0.0036	mg/L		11/19/19 16:35	11/27/19 15:50	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 23:05	1
Calcium	0.025	U	0.050	0.025	mg/L		11/19/19 16:35	11/25/19 23:52	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/19/19 16:35	11/21/19 23:05	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 23:05	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/19/19 16:35	11/21/19 23:05	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 21:02	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/21/19 23:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/20/19 10:21	1
Chloride	1.4	U	2.0	1.4	mg/L			12/04/19 14:06	1
Fluoride	0.032	U	0.10	0.032	mg/L			12/06/19 15:21	1
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:59	1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample 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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: PZ-200S

Lab Sample ID: 400-179658-1

Date Collected: 11/15/19 09:02

Matrix: Water

Date Received: 11/15/19 10:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 15:26	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:04	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		50	467512	11/25/19 23:17	AW	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		100	467512	11/25/19 23:22	AW	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	468043	11/29/19 16:11	AW	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 12:54	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		100	468685	12/04/19 16:01	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 14:45	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	468436	12/03/19 11:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/15/19 09:02	EHS	TAL PEN

Client Sample ID: GSA-2S

Lab Sample ID: 400-179658-3

Date Collected: 11/15/19 08:30

Matrix: Water

Date Received: 11/15/19 10:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 16:06	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:24	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 19:57	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	467338	11/24/19 20:02	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 19:45	LDC	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 12:56	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 14:58	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:59	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/15/19 08:30	EHS	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-201D
Date Collected: 11/14/19 14:35
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 16:11	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:29	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 20:07	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 19:17	LDC	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:03	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466522	11/19/19 10:59	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:04	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:02	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/14/19 14:35	EHS	TAL PEN

Client Sample ID: PZ-203D
Date Collected: 11/14/19 09:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 16:16	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:34	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 20:17	LDC	TAL PEN
Total Recoverable	Prep	3005A			472739	01/02/20 16:31	NET	TAL PEN
Total Recoverable	Analysis	6020		1	473089	01/06/20 19:01	LDC	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:05	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:04	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:05	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/14/19 09:05	EHS	TAL PEN

Client Sample ID: GE-1D
Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 16:21	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D
Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:39	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 20:37	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467875	11/27/19 15:35	AW	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:11	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:09	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:56	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/14/19 15:00	EHS	TAL PEN

Client Sample ID: DUP-01
Date Collected: 11/14/19 08:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		5	466869	11/20/19 16:26	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 22:54	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 20:47	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467875	11/27/19 15:40	AW	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:13	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466707	11/20/19 10:21	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:13	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:56	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/14/19 08:05	EHS	TAL PEN

Client Sample ID: EB-01
Date Collected: 11/14/19 10:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 23:00	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 20:57	LDC	TAL PEN

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Client Sample ID: EB-01
Date Collected: 11/14/19 10:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467512	11/25/19 23:47	AW	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467875	11/27/19 15:45	AW	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:15	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:17	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:59	RRC	TAL PEN

Client Sample ID: FB-01
Date Collected: 11/15/19 08:50
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467060	11/21/19 23:05	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467338	11/24/19 21:02	LDC	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467512	11/25/19 23:52	AW	TAL PEN
Total Recoverable	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Total Recoverable	Analysis	6020		1	467875	11/27/19 15:50	AW	TAL PEN
Total/NA	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468671	12/04/19 13:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466707	11/20/19 10:21	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	468685	12/04/19 14:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	469081	12/06/19 15:21	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:59	RRC	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 466596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total Recoverable	Water	3005A	
400-179658-3	GSA-2S	Total Recoverable	Water	3005A	
400-179658-4	PZ-201D	Total Recoverable	Water	3005A	
400-179658-5	PZ-203D	Total Recoverable	Water	3005A	
400-179658-6	GE-1D	Total Recoverable	Water	3005A	
400-179658-7	DUP-01	Total Recoverable	Water	3005A	
400-179658-8	EB-01	Total Recoverable	Water	3005A	
400-179658-9	FB-01	Total Recoverable	Water	3005A	
MB 400-466596/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-466596/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-466596/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-466596/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-179658-1 MS	PZ-200S	Total Recoverable	Water	3005A	
400-179658-1 MSD	PZ-200S	Total Recoverable	Water	3005A	

Analysis Batch: 466869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total Recoverable	Water	6020	466596
400-179658-3	GSA-2S	Total Recoverable	Water	6020	466596
400-179658-4	PZ-201D	Total Recoverable	Water	6020	466596
400-179658-5	PZ-203D	Total Recoverable	Water	6020	466596
400-179658-6	GE-1D	Total Recoverable	Water	6020	466596
400-179658-7	DUP-01	Total Recoverable	Water	6020	466596
MB 400-466596/1-A ^5	Method Blank	Total Recoverable	Water	6020	466596
LCS 400-466596/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	466596

Analysis Batch: 467060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total Recoverable	Water	6020	466596
400-179658-3	GSA-2S	Total Recoverable	Water	6020	466596
400-179658-4	PZ-201D	Total Recoverable	Water	6020	466596
400-179658-5	PZ-203D	Total Recoverable	Water	6020	466596
400-179658-6	GE-1D	Total Recoverable	Water	6020	466596
400-179658-7	DUP-01	Total Recoverable	Water	6020	466596
400-179658-8	EB-01	Total Recoverable	Water	6020	466596
400-179658-9	FB-01	Total Recoverable	Water	6020	466596
400-179658-1 MS	PZ-200S	Total Recoverable	Water	6020	466596
400-179658-1 MSD	PZ-200S	Total Recoverable	Water	6020	466596

Analysis Batch: 467338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-3	GSA-2S	Total Recoverable	Water	6020	466596
400-179658-3	GSA-2S	Total Recoverable	Water	6020	466596
400-179658-4	PZ-201D	Total Recoverable	Water	6020	466596
400-179658-5	PZ-203D	Total Recoverable	Water	6020	466596
400-179658-6	GE-1D	Total Recoverable	Water	6020	466596
400-179658-7	DUP-01	Total Recoverable	Water	6020	466596
400-179658-8	EB-01	Total Recoverable	Water	6020	466596
400-179658-9	FB-01	Total Recoverable	Water	6020	466596
MB 400-466596/1-A	Method Blank	Total Recoverable	Water	6020	466596
LCS 400-466596/2-A	Lab Control Sample	Total Recoverable	Water	6020	466596

Metals

Analysis Batch: 467512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total Recoverable	Water	6020	466596
400-179658-1	PZ-200S	Total Recoverable	Water	6020	466596
400-179658-8	EB-01	Total Recoverable	Water	6020	466596
400-179658-9	FB-01	Total Recoverable	Water	6020	466596

Analysis Batch: 467875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-6	GE-1D	Total Recoverable	Water	6020	466596
400-179658-7	DUP-01	Total Recoverable	Water	6020	466596
400-179658-8	EB-01	Total Recoverable	Water	6020	466596
400-179658-9	FB-01	Total Recoverable	Water	6020	466596

Analysis Batch: 468043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total Recoverable	Water	6020	466596

Prep Batch: 468278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	7470A	
400-179658-3	GSA-2S	Total/NA	Water	7470A	
400-179658-4	PZ-201D	Total/NA	Water	7470A	
400-179658-5	PZ-203D	Total/NA	Water	7470A	
400-179658-6	GE-1D	Total/NA	Water	7470A	
400-179658-7	DUP-01	Total/NA	Water	7470A	
400-179658-8	EB-01	Total/NA	Water	7470A	
400-179658-9	FB-01	Total/NA	Water	7470A	
MB 400-468278/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-468278/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179658-3 MS	GSA-2S	Total/NA	Water	7470A	
400-179658-3 MSD	GSA-2S	Total/NA	Water	7470A	

Analysis Batch: 468671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	7470A	468278
400-179658-3	GSA-2S	Total/NA	Water	7470A	468278
400-179658-4	PZ-201D	Total/NA	Water	7470A	468278
400-179658-5	PZ-203D	Total/NA	Water	7470A	468278
400-179658-6	GE-1D	Total/NA	Water	7470A	468278
400-179658-7	DUP-01	Total/NA	Water	7470A	468278
400-179658-8	EB-01	Total/NA	Water	7470A	468278
400-179658-9	FB-01	Total/NA	Water	7470A	468278
MB 400-468278/14-A	Method Blank	Total/NA	Water	7470A	468278
400-179658-3 MS	GSA-2S	Total/NA	Water	7470A	468278
400-179658-3 MSD	GSA-2S	Total/NA	Water	7470A	468278

Analysis Batch: 468679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-468278/15-A	Lab Control Sample	Total/NA	Water	7470A	468278

Metals

Prep Batch: 472739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-3	GSA-2S	Total Recoverable	Water	3005A	
400-179658-4	PZ-201D	Total Recoverable	Water	3005A	
400-179658-5	PZ-203D	Total Recoverable	Water	3005A	
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-179658-4 MS	PZ-201D	Total Recoverable	Water	3005A	
400-179658-4 MSD	PZ-201D	Total Recoverable	Water	3005A	

Analysis Batch: 473089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-3	GSA-2S	Total Recoverable	Water	6020	472739
400-179658-4	PZ-201D	Total Recoverable	Water	6020	472739
400-179658-5	PZ-203D	Total Recoverable	Water	6020	472739
MB 400-472739/1-A	Method Blank	Total Recoverable	Water	6020	472739
LCS 400-472739/2-A	Lab Control Sample	Total Recoverable	Water	6020	472739
400-179658-4 MS	PZ-201D	Total Recoverable	Water	6020	472739
400-179658-4 MSD	PZ-201D	Total Recoverable	Water	6020	472739

General Chemistry

Analysis Batch: 466522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-4	PZ-201D	Total/NA	Water	SM 2540C	
MB 400-466522/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466522/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179658-A-2 DU	400-179658-A-2 DU	Total/NA	Water	SM 2540C	

Analysis Batch: 466529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	SM 2540C	
400-179658-3	GSA-2S	Total/NA	Water	SM 2540C	
400-179658-5	PZ-203D	Total/NA	Water	SM 2540C	
400-179658-6	GE-1D	Total/NA	Water	SM 2540C	
400-179658-8	EB-01	Total/NA	Water	SM 2540C	
MB 400-466529/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466529/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179663-P-1 DU	Duplicate	Total/NA	Water	SM 2540C	
400-179702-A-23 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 466707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-7	DUP-01	Total/NA	Water	SM 2540C	
400-179658-9	FB-01	Total/NA	Water	SM 2540C	
MB 400-466707/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466707/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179684-A-10 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 468436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	SM 4500 SO4 E	
400-179658-3	GSA-2S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 468436 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-4	PZ-201D	Total/NA	Water	SM 4500 SO4 E	
400-179658-5	PZ-203D	Total/NA	Water	SM 4500 SO4 E	
400-179658-6	GE-1D	Total/NA	Water	SM 4500 SO4 E	
400-179658-7	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-179658-8	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-179658-9	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-468436/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-468436/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-468436/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-180442-P-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-180442-P-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	SM 4500 Cl- E	
400-179658-3	GSA-2S	Total/NA	Water	SM 4500 Cl- E	
400-179658-4	PZ-201D	Total/NA	Water	SM 4500 Cl- E	
400-179658-5	PZ-203D	Total/NA	Water	SM 4500 Cl- E	
400-179658-6	GE-1D	Total/NA	Water	SM 4500 Cl- E	
400-179658-7	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-179658-8	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-179658-9	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-468685/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-468685/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-468685/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179658-5 MS	PZ-203D	Total/NA	Water	SM 4500 Cl- E	
400-179658-5 MSD	PZ-203D	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 469081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	SM 4500 F C	
400-179658-3	GSA-2S	Total/NA	Water	SM 4500 F C	
400-179658-4	PZ-201D	Total/NA	Water	SM 4500 F C	
400-179658-5	PZ-203D	Total/NA	Water	SM 4500 F C	
400-179658-6	GE-1D	Total/NA	Water	SM 4500 F C	
400-179658-7	DUP-01	Total/NA	Water	SM 4500 F C	
400-179658-8	EB-01	Total/NA	Water	SM 4500 F C	
400-179658-9	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-469081/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-469081/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-179608-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-179608-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-179658-1 MS	PZ-200S	Total/NA	Water	SM 4500 F C	
400-179658-1 MSD	PZ-200S	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Field Service / Mobile Lab

Analysis Batch: 470839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	Field Sampling	
400-179658-3	GSA-2S	Total/NA	Water	Field Sampling	
400-179658-4	PZ-201D	Total/NA	Water	Field Sampling	
400-179658-5	PZ-203D	Total/NA	Water	Field Sampling	
400-179658-6	GE-1D	Total/NA	Water	Field Sampling	
400-179658-7	DUP-01	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-466596/1-A
Matrix: Water
Analysis Batch: 467338

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00522	I	0.010	0.0036	mg/L		11/19/19 16:35	11/24/19 19:37	1

Lab Sample ID: MB 400-466596/1-A ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00039	U	0.0013	0.00039	mg/L		11/19/19 16:35	11/20/19 15:16	5
Barium	0.00070	U	0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 15:16	5
Beryllium	0.00017	U	0.0025	0.00017	mg/L		11/19/19 16:35	11/20/19 15:16	5
Cadmium	0.00028	U	0.0025	0.00028	mg/L		11/19/19 16:35	11/20/19 15:16	5
Calcium	0.13	U	0.25	0.13	mg/L		11/19/19 16:35	11/20/19 15:16	5
Cobalt	0.00056	U	0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 15:16	5
Lead	0.000400	I	0.0013	0.00029	mg/L		11/19/19 16:35	11/20/19 15:16	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 15:16	5
Selenium	0.00082	U	0.0013	0.00082	mg/L		11/19/19 16:35	11/20/19 15:16	5
Thallium	0.00012	U	0.00050	0.00012	mg/L		11/19/19 16:35	11/20/19 15:16	5

Lab Sample ID: LCS 400-466596/2-A
Matrix: Water
Analysis Batch: 467338

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0957		mg/L		96	80 - 120

Lab Sample ID: LCS 400-466596/2-A ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0504		mg/L		101	80 - 120
Barium	0.0500	0.0470		mg/L		94	80 - 120
Beryllium	0.0500	0.0512		mg/L		102	80 - 120
Cadmium	0.0500	0.0534		mg/L		107	80 - 120
Calcium	5.00	5.03		mg/L		101	80 - 120
Cobalt	0.0500	0.0509		mg/L		102	80 - 120
Lead	0.0500	0.0457		mg/L		91	80 - 120
Lithium	0.0500	0.0532		mg/L		106	80 - 120
Selenium	0.0500	0.0497		mg/L		99	80 - 120
Thallium	0.0100	0.00902		mg/L		90	80 - 120

Lab Sample ID: 400-179658-1 MS
Matrix: Water
Analysis Batch: 467060

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0018		0.0500	0.0293	J3	mg/L		55	75 - 125
Barium	0.059		0.0500	0.111		mg/L		103	75 - 125
Beryllium	0.00011	I	0.0500	0.0409		mg/L		82	75 - 125

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

Lab Sample ID: 400-179658-1 MS
Matrix: Water
Analysis Batch: 467060

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	25	L	0.100	25.4	L J3	mg/L		766	75 - 125
Cadmium	0.00051		0.0500	0.0469		mg/L		93	75 - 125
Calcium	620	L	5.00	570	L J3	mg/L		-916	75 - 125
Cobalt	0.022		0.0500	0.0508	J3	mg/L		57	75 - 125
Lead	0.0037		0.0500	0.0537		mg/L		100	75 - 125
Lithium	0.00095	I	0.0500	0.0500		mg/L		98	75 - 125
Selenium	0.0066		0.0500	0.0506		mg/L		88	75 - 125
Thallium	0.00044		0.0100	0.00869		mg/L		82	75 - 125

Lab Sample ID: 400-179658-1 MSD
Matrix: Water
Analysis Batch: 467060

Client Sample ID: PZ-200S
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0018		0.0500	0.0292	J3	mg/L		55	75 - 125	1	20
Barium	0.059		0.0500	0.109		mg/L		99	75 - 125	2	20
Beryllium	0.00011	I	0.0500	0.0395		mg/L		79	75 - 125	3	20
Boron	25	L	0.100	25.7	L J3	mg/L		1035	75 - 125	1	20
Cadmium	0.00051		0.0500	0.0459		mg/L		91	75 - 125	2	20
Calcium	620	L	5.00	536	L J3	mg/L		-1595	75 - 125	6	20
Cobalt	0.022		0.0500	0.0498	J3	mg/L		55	75 - 125	2	20
Lead	0.0037		0.0500	0.0536		mg/L		100	75 - 125	0	20
Lithium	0.00095	I	0.0500	0.0499		mg/L		98	75 - 125	0	20
Selenium	0.0066		0.0500	0.0493		mg/L		85	75 - 125	3	20
Thallium	0.00044		0.0100	0.00870		mg/L		83	75 - 125	0	20

Lab Sample ID: MB 400-472739/1-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000034	U	0.00050	0.000034	mg/L		01/02/20 16:31	01/06/20 18:21	1

Lab Sample ID: LCS 400-472739/2-A
Matrix: Water
Analysis Batch: 473089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0531		mg/L		106	80 - 120

Lab Sample ID: 400-179658-4 MS
Matrix: Water
Analysis Batch: 473089

Client Sample ID: PZ-201D
Prep Type: Total Recoverable
Prep Batch: 472739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.000034	U	0.0500	0.0516		mg/L		103	75 - 125

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

Lab Sample ID: 400-179658-4 MSD — **Client Sample ID: PZ-201D**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 473089 — **Prep Batch: 472739**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.000034	U	0.0500	0.0511		mg/L		102	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-468278/14-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468671 — **Prep Batch: 468278**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 12:50	1

Lab Sample ID: LCS 400-468278/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468679 — **Prep Batch: 468278**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.000927		mg/L		92	80 - 120

Lab Sample ID: 400-179658-3 MS — **Client Sample ID: GSA-2S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468671 — **Prep Batch: 468278**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000070	U	0.00201	0.00227		mg/L		112	80 - 120

Lab Sample ID: 400-179658-3 MSD — **Client Sample ID: GSA-2S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468671 — **Prep Batch: 468278**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000070	U	0.00201	0.00215		mg/L		107	80 - 120	5	20

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

Lab Sample ID: MB 400-466522/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466522

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6.8	U	10	6.8	mg/L			11/19/19 10:59	1

Lab Sample ID: LCS 400-466522/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	338		mg/L		115	78 - 122

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

Lab Sample ID: 400-179658-A-2 DU
Matrix: Water
Analysis Batch: 466522

Client Sample ID: 400-179658-A-2 DU
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	56			56.0		mg/L				0	5

Lab Sample ID: MB 400-466529/1
Matrix: Water
Analysis Batch: 466529

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	6.8	U	10	6.8	mg/L			11/19/19 11:50	1

Lab Sample ID: LCS 400-466529/2
Matrix: Water
Analysis Batch: 466529

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	322		mg/L		110	78 - 122		

Lab Sample ID: 400-179663-P-1 DU
Matrix: Water
Analysis Batch: 466529

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	6400			6400		mg/L				0.8	5

Lab Sample ID: 400-179702-A-23 DU
Matrix: Water
Analysis Batch: 466529

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1240	J3	mg/L				12	5

Lab Sample ID: MB 400-466707/1
Matrix: Water
Analysis Batch: 466707

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/20/19 10:21	1

Lab Sample ID: LCS 400-466707/2
Matrix: Water
Analysis Batch: 466707

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			293	240		mg/L		82	78 - 122		

Lab Sample ID: 400-179684-A-10 DU
Matrix: Water
Analysis Batch: 466707

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	220			212		mg/L				3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-468685/6
Matrix: Water
Analysis Batch: 468685

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			12/04/19 14:04	1

Lab Sample ID: LCS 400-468685/7
Matrix: Water
Analysis Batch: 468685

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.0		mg/L		107	90 - 110

Lab Sample ID: MRL 400-468685/3
Matrix: Water
Analysis Batch: 468685

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.73	I	mg/L		86	50 - 150

Lab Sample ID: 400-179658-5 MS
Matrix: Water
Analysis Batch: 468685

Client Sample ID: PZ-203D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.3		10.0	15.3		mg/L		110	73 - 120

Lab Sample ID: 400-179658-5 MSD
Matrix: Water
Analysis Batch: 468685

Client Sample ID: PZ-203D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.3		10.0	15.3		mg/L		110	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-469081/3
Matrix: Water
Analysis Batch: 469081

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.120		0.10	0.032	mg/L			12/06/19 14:29	1

Lab Sample ID: LCS 400-469081/4
Matrix: Water
Analysis Batch: 469081

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-179608-B-1 MS
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.032	U	1.00	0.850	V	mg/L		85	75 - 125

Lab Sample ID: 400-179608-B-1 MSD
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.032	U	1.00	0.800	V J3	mg/L		80	75 - 125	6	4

Lab Sample ID: 400-179658-1 MS
Matrix: Water
Analysis Batch: 469081

Client Sample ID: PZ-200S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	I V	1.00	0.620	V J3	mg/L		57	75 - 125

Lab Sample ID: 400-179658-1 MSD
Matrix: Water
Analysis Batch: 469081

Client Sample ID: PZ-200S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	I V	1.00	0.800	V J3	mg/L		75	75 - 125	25	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-468436/6
Matrix: Water
Analysis Batch: 468436

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			12/03/19 10:45	1

Lab Sample ID: LCS 400-468436/7
Matrix: Water
Analysis Batch: 468436

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.0		mg/L		93	90 - 110

Lab Sample ID: MRL 400-468436/3
Matrix: Water
Analysis Batch: 468436

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.73		mg/L		115	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-180385-B-1 MS
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	63		10.0	65.0	J3	mg/L		21	77 - 128		

Lab Sample ID: 400-180385-B-1 MSD
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	63		10.0	64.1	J3	mg/L		13	77 - 128	1	5

Lab Sample ID: 400-180442-P-1 MS
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	270		50.0	266	J3	mg/L		-2	77 - 128		

Lab Sample ID: 400-180442-P-1 MSD
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	270		50.0	256	J3	mg/L		-22	77 - 128	4	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179658 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Rad 226|228 FF	Cl,F,SO4,TDS FF	6020,7470 FF	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D					
PZ-200S	11/15/19	0902	G	Water			X	X		X					
PZ-200D	11/14/19	1127		Water											
GSA-2S	11/15/19	0830		Water											
PZ-201D	11/14/19	1435		Water											
PZ-203D	11/14/19	0905		Water											
GE-1D	11/14/19	1500		Water											
Dup-01	11/14/19	0805		Water											
EB-01	11/14/19	1000	G	Water											
FB-01	11/15/19	0850	G	Water			X	X		X					~~.45 filter~~ PE
PZ-200D FF	11/14/19	1127	G	Water							X	X	X		.45 filter
FF GE-1D	11/14/19	1500	G	Water							X	X	X		.45 filter

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Owen	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.3, 4.7, 4.9, 10.5°C IR)

Ver: 01/16/2019

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required
Email: richard.markey@nexteraenergy.com	WO #:
Project Name: CCR Plant Crist	Project #: 40005424
Site: GSA Delineation Sampling	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
[redacted] Dup-02	11/15/19	0802	G	Water			X	X		X		
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Avery	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-1
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 °C, 4.7 °C, 4.9 °C , 10.5 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-1
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179658-2
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/17/2019 5:30:52 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

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

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

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Job ID: 400-179658-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179658-2

RAD

Methods 9315: Radium-226 Prep Batch 160-451387. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-179658-1), GSA-2S (400-179658-3), PZ-201D (400-179658-4), PZ-203D (400-179658-5), GE-1D (400-179658-6), DUP-01 (400-179658-7), EB-01 (400-179658-8), FB-01 (400-179658-9), (LCS 160-451387/1-A), (LCSD 160-451387/2-A) and (MB 160-451387/13-A)

Methods 9320: Radium-228 Prep Batch 160-451391. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200S (400-179658-1), GSA-2S (400-179658-3), PZ-201D (400-179658-4), PZ-203D (400-179658-5), GE-1D (400-179658-6), DUP-01 (400-179658-7), EB-01 (400-179658-8), FB-01 (400-179658-9), (LCS 160-451391/1-A), (LCSD 160-451391/2-A) and (MB 160-451391/13-A)

Method PrecSep_0: Radium 228 Prep Batch 160-451391. The following samples had discoloration: PZ-201D (400-179658-4) and GE-1D (400-179658-6). Sample 400-179658-4 was slightly cloudy white. Sample 400-179658-6 was cloudy and pale yellow.

Method PrecSep_0: Radium 228 Prep Batch 160-451391. Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200S (400-179658-1), GSA-2S (400-179658-3), PZ-201D (400-179658-4), PZ-203D (400-179658-5), GE-1D (400-179658-6), DUP-01 (400-179658-7), EB-01 (400-179658-8) and FB-01 (400-179658-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-451387. The following samples had discoloration:PZ-201D (400-179658-4) and GE-1D (400-179658-6). Sample 400-179658-4 was slightly cloudy white. Sample 400-179658-6 was cloudy and pale yellow.

Method PrecSep-21: Radium 226 Prep Batch 160-451387. Insufficient sample volume was available to perform a sample duplicate for the following samples: PZ-200S (400-179658-1), GSA-2S (400-179658-3), PZ-201D (400-179658-4), PZ-203D (400-179658-5), GE-1D (400-179658-6), DUP-01 (400-179658-7), EB-01 (400-179658-8) and FB-01 (400-179658-9). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179658-1	PZ-200S	Water	11/15/19 09:02	11/15/19 10:27	
400-179658-3	GSA-2S	Water	11/15/19 08:30	11/15/19 10:27	
400-179658-4	PZ-201D	Water	11/14/19 14:35	11/15/19 10:27	
400-179658-5	PZ-203D	Water	11/14/19 09:05	11/15/19 10:27	
400-179658-6	GE-1D	Water	11/14/19 15:00	11/15/19 10:27	
400-179658-7	DUP-01	Water	11/14/19 08:05	11/15/19 10:27	
400-179658-8	EB-01	Water	11/14/19 10:00	11/15/19 10:27	
400-179658-9	FB-01	Water	11/15/19 08:50	11/15/19 10:27	

Client Sample ID: PZ-200S

Date Collected: 11/15/19 09:02
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.88		0.453	0.768	1.00	0.124	pCi/L	11/20/19 15:51	12/12/19 10:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*11/20/19 15:51*	*12/12/19 10:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.68		0.618	0.872	1.00	0.409	pCi/L	11/20/19 17:09	11/25/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	13.6		0.766	1.16	5.00	0.409	pCi/L		12/16/19 07:18	1

Client Sample ID: GSA-2S

Date Collected: 11/15/19 08:30
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.943		0.165	0.186	1.00	0.121	pCi/L	11/20/19 15:51	12/12/19 10:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*11/20/19 15:51*	*12/12/19 10:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.959		0.300	0.313	1.00	0.396	pCi/L	11/20/19 17:09	11/25/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.90		0.342	0.364	5.00	0.396	pCi/L		12/16/19 07:18	1

Client Sample ID: PZ-201D

Date Collected: 11/14/19 14:35
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.218		0.100	0.102	1.00	0.128	pCi/L	11/20/19 15:51	12/12/19 10:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*11/20/19 15:51*	*12/12/19 10:02*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0452	U	0.247	0.247	1.00	0.445	pCi/L	11/20/19 17:09	11/25/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.173	U	0.266	0.267	5.00	0.445	pCi/L		12/16/19 07:18	1

Client Sample ID: PZ-203D

Date Collected: 11/14/19 09:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.102**		0.0675	0.0681	1.00	0.0938	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.387	U	0.304	0.306	1.00	0.486	pCi/L	11/20/19 17:09	11/25/19 09:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*
Y Carrier	*82.2*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.489**		0.311	0.313	5.00	0.486	pCi/L		12/16/19 07:18	1

Client Sample ID: GE-1D

Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.175		0.0848	0.0862	1.00	0.108	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.980		0.311	0.324	1.00	0.421	pCi/L	11/20/19 17:09	11/25/19 09:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*
Y Carrier	*83.0*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.322	0.335	5.00	0.421	pCi/L		12/16/19 07:18	1

Client Sample ID: DUP-01

Date Collected: 11/14/19 08:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-7

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.0760	0.0766	1.00	0.111	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.291	0.291	1.00	0.492	pCi/L	11/20/19 17:09	11/25/19 09:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*
Y Carrier	*82.6*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.265	U	0.301	0.301	5.00	0.492	pCi/L		12/16/19 07:18	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Client Sample ID: EB-01
Date Collected: 11/14/19 10:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0471	U	0.0600	0.0602	1.00	0.0998	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.167	U	0.250	0.250	1.00	0.419	pCi/L	11/20/19 17:09	11/25/19 09:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*
Y Carrier	*80.7*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.214	U	0.257	0.257	5.00	0.419	pCi/L		12/16/19 07:18	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Client Sample ID: FB-01

Date Collected: 11/15/19 08:50
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-9

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00902	U	0.0621	0.0621	1.00	0.125	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.394	U	0.266	0.269	1.00	0.414	pCi/L	11/20/19 17:09	11/25/19 09:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*
Y Carrier	*84.9*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.385	U	0.273	0.276	5.00	0.414	pCi/L		12/16/19 07:18	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200S
Date Collected: 11/15/19 09:02
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 10:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451886	11/25/19 09:18	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: GSA-2S
Date Collected: 11/15/19 08:30
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 10:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451886	11/25/19 09:18	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: PZ-201D
Date Collected: 11/14/19 14:35
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 10:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451886	11/25/19 09:18	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: PZ-203D
Date Collected: 11/14/19 09:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451884	11/25/19 09:14	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Client Sample ID: GE-1D
Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451884	11/25/19 09:14	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: DUP-01
Date Collected: 11/14/19 08:05
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451884	11/25/19 09:14	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: EB-01
Date Collected: 11/14/19 10:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451884	11/25/19 09:15	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Client Sample ID: FB-01
Date Collected: 11/15/19 08:50
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Total/NA	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Total/NA	Analysis	9320		1	451884	11/25/19 09:15	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	454281	12/16/19 07:18	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Rad

Prep Batch: 451387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	PrecSep-21	
400-179658-3	GSA-2S	Total/NA	Water	PrecSep-21	
400-179658-4	PZ-201D	Total/NA	Water	PrecSep-21	
400-179658-5	PZ-203D	Total/NA	Water	PrecSep-21	
400-179658-6	GE-1D	Total/NA	Water	PrecSep-21	
400-179658-7	DUP-01	Total/NA	Water	PrecSep-21	
400-179658-8	EB-01	Total/NA	Water	PrecSep-21	
400-179658-9	FB-01	Total/NA	Water	PrecSep-21	
MB 160-451387/13-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-451387/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-451387/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 451391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-1	PZ-200S	Total/NA	Water	PrecSep_0	
400-179658-3	GSA-2S	Total/NA	Water	PrecSep_0	
400-179658-4	PZ-201D	Total/NA	Water	PrecSep_0	
400-179658-5	PZ-203D	Total/NA	Water	PrecSep_0	
400-179658-6	GE-1D	Total/NA	Water	PrecSep_0	
400-179658-7	DUP-01	Total/NA	Water	PrecSep_0	
400-179658-8	EB-01	Total/NA	Water	PrecSep_0	
400-179658-9	FB-01	Total/NA	Water	PrecSep_0	
MB 160-451391/13-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-451391/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-451391/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-451387/13-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451387

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03096	U	0.0631	0.0631	1.00	0.112	pCi/L	11/20/19 15:55	12/12/19 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/20/19 15:55*	*12/12/19 11:47*	*1*

Lab Sample ID: LCS 160-451387/1-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451387

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.256		0.990	1.00	0.121	pCi/L	82	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*

Lab Sample ID: LCSD 160-451387/2-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 451387

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	9.242		0.957	1.00	0.102	pCi/L	81	75 - 125	0.62	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-451391/13-A
Matrix: Water
Analysis Batch: 451884

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451391

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1771	U	0.242	0.243	1.00	0.454	pCi/L	11/20/19 17:09	11/25/19 09:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*
Y Carrier	*85.2*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-451391/1-A
Matrix: Water
Analysis Batch: 451886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451391

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.36	9.337		1.08	1.00	0.382	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: LCSD 160-451391/2-A
Matrix: Water
Analysis Batch: 451886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 451391

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.36	9.857		1.12	1.00	0.337	pCi/L	105	75 - 125	0.24	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*
Y Carrier	*87.1*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179658 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Rad 226/228 FF	Cl, F, SO4, TDS FF	6020, 7470 FF	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D					
PZ-200S	11/15/19	0902	G	Water			X	X		X					
PZ-200D	11/14/19	1127		Water											
GSA-2S	11/15/19	0830		Water											
PZ-201D	11/14/19	1435		Water											
PZ-203D	11/14/19	0905		Water											
GE-1D	11/14/19	1500		Water											
Dup-01	11/14/19	0805		Water											
EB-01	11/14/19	1000	G	Water											
FB-01	11/15/19	0850	G	Water			X	X		X					~~.45 filter~~ PE
PZ-200D FF	11/14/19	1127	G	Water							X	X	X		.45 filter
FF GE-1D	11/14/19	1500	G	Water							X	X	X		.45 filter

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Owen	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.3, 4.7, 4.9, 10.5°C IR)

Ver: 01/16/2019

12/17/2019

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required
Email: richard.markey@nexteraenergy.com	WO #:
Project Name: CCR Plant Crist	Project #: 40005424
Site: GSA Delineation Sampling	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
[redacted] Dup-02	11/15/19	0802	G	Water			X	X		X		
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Avery	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-2
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 °C, 4.7 °C, 4.9 °C , 10.5 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-2
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/19/19 10:40 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	12-31-19

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179658-3
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/27/2019 6:31:00 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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

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Job ID: 400-179658-3

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179658-3

Metals

Method 6020: The method blank for preparation batch 400-466596 and analytical batch 400-466869 contained Lead above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020: The continuing calibration verification (CCV) associated with batch 400-467338 recovered above the upper control limit for Beryllium and Selenium. The samples associated with this CCV were confirmed with previous analysis; therefore, the data have been reported. The following sample is impacted: FF GE-1D (400-179658-11).

General Chemistry

Method SM 2540C: The sample duplicate (DUP) precision for analytical batch 400-466529 was outside control limits. Sample non-homogeneity is suspected.

Method SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-469081 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 400-469081 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Methods SM 4500 SO4 E: Due to the concentration of sulfates in the parent sample the MS/MSD was diluted after the spike. The spike amount was adjusted by the dilution factor. (400-180385-B-1 MS) and (400-180385-B-1 MSD)

Methods SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-468436 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Methods SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-180385-B-1), (400-180385-B-1 MS) and (400-180385-B-1 MSD). Elevated reporting limits (RLs) are provided.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Client Sample ID: FF GE-1D

Lab Sample ID: 400-179658-11

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic, Dissolved	0.00015	I	0.00025	0.000078	mg/L	1		6020	Dissolved
Barium, Dissolved	0.020		0.0025	0.00070	mg/L	5		6020	Dissolved
Beryllium, Dissolved	0.000077	I	0.00050	0.000034	mg/L	1		6020	Dissolved
Boron, Dissolved	0.0076	I	0.010	0.0036	mg/L	1		6020	Dissolved
Calcium, Dissolved	4.7		0.25	0.13	mg/L	5		6020	Dissolved
Cobalt, Dissolved	0.0018	I	0.0025	0.00056	mg/L	5		6020	Dissolved
Lead, Dissolved	0.00022	I	0.00025	0.000058	mg/L	1		6020	Dissolved
Lithium, Dissolved	0.0025	I	0.0050	0.0019	mg/L	5		6020	Dissolved
Total Dissolved Solids Field Filtered	46		10	6.8	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Dissolved
Sulfate, Dissolved	2.5	I	5.0	1.4	mg/L	1		SM 4500 SO4 E	Dissolved
Field pH	4.82				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Mercury in Liquid Waste (Manual Cold Vapor Technique)/Preparation	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179658-11	FF GE-1D	Water	11/14/19 15:00	11/15/19 10:27	

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Client Sample ID: FF GE-1D
Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.00015	I	0.00025	0.000078	mg/L		11/19/19 16:35	11/22/19 00:40	1
Barium, Dissolved	0.020		0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 17:41	5
Beryllium, Dissolved	0.000077	I	0.00050	0.000034	mg/L		11/19/19 16:35	11/24/19 22:42	1
Boron, Dissolved	0.0076	I	0.010	0.0036	mg/L		11/19/19 16:35	11/27/19 15:55	1
Cadmium, Dissolved	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/22/19 00:40	1
Calcium, Dissolved	4.7		0.25	0.13	mg/L		11/19/19 16:35	11/20/19 17:41	5
Cobalt, Dissolved	0.0018	I	0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 17:41	5
Lead, Dissolved	0.00022	I	0.00025	0.000058	mg/L		11/19/19 16:35	11/22/19 00:40	1
Lithium, Dissolved	0.0025	I	0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 17:41	5
Selenium, Dissolved	0.00016	U	0.00025	0.00016	mg/L		11/19/19 16:35	11/24/19 22:42	1
Thallium, Dissolved	0.000024	U	0.00010	0.000024	mg/L		11/19/19 16:35	11/24/19 22:42	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 13:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	46		10	6.8	mg/L			11/19/19 11:50	1
Chloride, Dissolved	20		2.0	1.4	mg/L			11/25/19 20:03	1
Fluoride, Dissolved	0.032	U	0.10	0.032	mg/L			12/06/19 15:25	1
Sulfate, Dissolved	2.5	I	5.0	1.4	mg/L			12/03/19 10:56	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.82				SU			11/14/19 15:00	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample 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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Client Sample ID: FF GE-1D

Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Dissolved	Analysis	6020		5	466869	11/20/19 17:41	LDC	TAL PEN
Dissolved	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Dissolved	Analysis	6020		1	467060	11/22/19 00:40	LDC	TAL PEN
Dissolved	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Dissolved	Analysis	6020		1	467338	11/24/19 22:42	LDC	TAL PEN
Dissolved	Prep	3005A			466596	11/19/19 16:35	NET	TAL PEN
Dissolved	Analysis	6020		1	467875	11/27/19 15:55	AW	TAL PEN
Dissolved	Prep	7470A			468278	12/04/19 08:25	JAP	TAL PEN
Dissolved	Analysis	7470A		1	468671	12/04/19 13:19	JAP	TAL PEN
Dissolved	Analysis	SM 2540C		1	466529	11/19/19 11:50	CLB	TAL PEN
Dissolved	Analysis	SM 4500 Cl- E		1	467497	11/25/19 20:03	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1	469081	12/06/19 15:25	MAF	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		1	468436	12/03/19 10:56	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/14/19 15:00	EHS	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 466596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	3005A	
MB 400-466596/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 400-466596/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-466596/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 400-466596/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-179658-B-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
400-179658-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-179658-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
400-179658-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 466869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	6020	466596
MB 400-466596/1-A ^5	Method Blank	Total Recoverable	Water	6020	466596
LCS 400-466596/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	466596
400-179658-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	466596
400-179658-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	466596

Analysis Batch: 467060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	6020	466596
MB 400-466596/1-A	Method Blank	Total Recoverable	Water	6020	466596
LCS 400-466596/2-A	Lab Control Sample	Total Recoverable	Water	6020	466596
400-179658-B-1-B MS	Matrix Spike	Total Recoverable	Water	6020	466596
400-179658-B-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	466596

Analysis Batch: 467338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	6020	466596
MB 400-466596/1-A	Method Blank	Total Recoverable	Water	6020	466596
LCS 400-466596/2-A	Lab Control Sample	Total Recoverable	Water	6020	466596

Analysis Batch: 467875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	6020	466596

Prep Batch: 468278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	7470A	
MB 400-468278/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-468278/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179658-B-3-C MS	Matrix Spike	Total/NA	Water	7470A	
400-179658-B-3-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 468671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	7470A	468278
MB 400-468278/14-A	Method Blank	Total/NA	Water	7470A	468278
400-179658-B-3-C MS	Matrix Spike	Total/NA	Water	7470A	468278
400-179658-B-3-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	468278

Metals

Analysis Batch: 468679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-468278/15-A	Lab Control Sample	Total/NA	Water	7470A	468278

General Chemistry

Analysis Batch: 466529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	SM 2540C	
MB 400-466529/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466529/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179702-A-23 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 467497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	SM 4500 Cl- E	
MB 400-467497/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467497/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467497/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179849-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179849-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 468436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	SM 4500 SO4 E	
MB 400-468436/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-468436/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-468436/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-180385-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 469081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	SM 4500 F C	
MB 400-469081/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-469081/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-179608-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-179608-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-179658-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-179658-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 470839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-466596/1-A
Matrix: Water
Analysis Batch: 467060

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.000078	U	0.00025	0.000078	mg/L		11/19/19 16:35	11/21/19 21:54	1
Cadmium, Dissolved	0.000056	U	0.00050	0.000056	mg/L		11/19/19 16:35	11/21/19 21:54	1
Lead, Dissolved	0.000058	U	0.00025	0.000058	mg/L		11/19/19 16:35	11/21/19 21:54	1

Lab Sample ID: MB 400-466596/1-A
Matrix: Water
Analysis Batch: 467338

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron, Dissolved	0.00522	I	0.010	0.0036	mg/L		11/19/19 16:35	11/24/19 19:37	1

Lab Sample ID: MB 400-466596/1-A ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.00039	U	0.0013	0.00039	mg/L		11/19/19 16:35	11/20/19 15:16	5
Barium, Dissolved	0.00070	U	0.0025	0.00070	mg/L		11/19/19 16:35	11/20/19 15:16	5
Beryllium, Dissolved	0.00017	U	0.0025	0.00017	mg/L		11/19/19 16:35	11/20/19 15:16	5
Boron, Dissolved	0.018	U	0.050	0.018	mg/L		11/19/19 16:35	11/20/19 15:16	5
Cadmium, Dissolved	0.00028	U	0.0025	0.00028	mg/L		11/19/19 16:35	11/20/19 15:16	5
Calcium, Dissolved	0.13	U	0.25	0.13	mg/L		11/19/19 16:35	11/20/19 15:16	5
Cobalt, Dissolved	0.00056	U	0.0025	0.00056	mg/L		11/19/19 16:35	11/20/19 15:16	5
Lead, Dissolved	0.000400	I	0.0013	0.00029	mg/L		11/19/19 16:35	11/20/19 15:16	5
Lithium, Dissolved	0.0019	U	0.0050	0.0019	mg/L		11/19/19 16:35	11/20/19 15:16	5
Selenium, Dissolved	0.00082	U	0.0013	0.00082	mg/L		11/19/19 16:35	11/20/19 15:16	5
Thallium, Dissolved	0.00012	U	0.00050	0.00012	mg/L		11/19/19 16:35	11/20/19 15:16	5

Lab Sample ID: LCS 400-466596/2-A
Matrix: Water
Analysis Batch: 467060

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0491		mg/L		98	80 - 120
Cadmium, Dissolved	0.0500	0.0526		mg/L		105	80 - 120
Lead, Dissolved	0.0500	0.0484		mg/L		97	80 - 120

Lab Sample ID: LCS 400-466596/2-A
Matrix: Water
Analysis Batch: 467338

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron, Dissolved	0.100	0.0957		mg/L		96	80 - 120

Lab Sample ID: LCS 400-466596/2-A ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0504		mg/L		101	80 - 120

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

Lab Sample ID: LCS 400-466596/2-A ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium, Dissolved	0.0500	0.0470		mg/L		94	80 - 120
Beryllium, Dissolved	0.0500	0.0512		mg/L		102	80 - 120
Cadmium, Dissolved	0.0500	0.0534		mg/L		107	80 - 120
Calcium, Dissolved	5.00	5.03		mg/L		101	80 - 120
Cobalt, Dissolved	0.0500	0.0509		mg/L		102	80 - 120
Lead, Dissolved	0.0500	0.0457		mg/L		91	80 - 120
Lithium, Dissolved	0.0500	0.0532		mg/L		106	80 - 120
Selenium, Dissolved	0.0500	0.0497		mg/L		99	80 - 120
Thallium, Dissolved	0.0100	0.00902		mg/L		90	80 - 120

Lab Sample ID: 400-179658-B-1-B MS
Matrix: Water
Analysis Batch: 467060

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0018		0.0500	0.0293	J3	mg/L		55	75 - 125
Cadmium, Dissolved	0.00051		0.0500	0.0469		mg/L		93	75 - 125
Lead, Dissolved	0.0037		0.0500	0.0537		mg/L		100	75 - 125

Lab Sample ID: 400-179658-B-1-B MS ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0019		0.0500	0.0491		mg/L		94	75 - 125
Barium, Dissolved	0.056		0.0500	0.110		mg/L		107	75 - 125
Beryllium, Dissolved	0.00017	U	0.0500	0.0487		mg/L		97	75 - 125
Cadmium, Dissolved	0.00060	I	0.0500	0.0528		mg/L		104	75 - 125
Cobalt, Dissolved	0.036		0.0500	0.0836		mg/L		96	75 - 125
Lead, Dissolved	0.0037	V	0.0500	0.0520		mg/L		97	75 - 125
Lithium, Dissolved	0.0019	U	0.0500	0.0549		mg/L		110	75 - 125
Selenium, Dissolved	0.0076		0.0500	0.0582		mg/L		101	75 - 125
Thallium, Dissolved	0.00043	I	0.0100	0.00851		mg/L		81	75 - 125

Lab Sample ID: 400-179658-B-1-C MSD
Matrix: Water
Analysis Batch: 467060

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic, Dissolved	0.0018		0.0500	0.0292	J3	mg/L		55	75 - 125	1	20
Cadmium, Dissolved	0.00051		0.0500	0.0459		mg/L		91	75 - 125	2	20
Lead, Dissolved	0.0037		0.0500	0.0536		mg/L		100	75 - 125	0	20

Lab Sample ID: 400-179658-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic, Dissolved	0.0019		0.0500	0.0470		mg/L		90	75 - 125	4	20
Barium, Dissolved	0.056		0.0500	0.105		mg/L		98	75 - 125	4	20

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

Lab Sample ID: 400-179658-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 466869

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 466596

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium, Dissolved	0.00017	U	0.0500	0.0494		mg/L		99	75 - 125	2	20
Cadmium, Dissolved	0.00060	I	0.0500	0.0524		mg/L		104	75 - 125	1	20
Cobalt, Dissolved	0.036		0.0500	0.0805		mg/L		90	75 - 125	4	20
Lead, Dissolved	0.0037	V	0.0500	0.0504		mg/L		94	75 - 125	3	20
Lithium, Dissolved	0.0019	U	0.0500	0.0598		mg/L		120	75 - 125	8	20
Selenium, Dissolved	0.0076		0.0500	0.0593		mg/L		103	75 - 125	2	20
Thallium, Dissolved	0.00043	I	0.0100	0.00838		mg/L		79	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-468278/14-A
Matrix: Water
Analysis Batch: 468671

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468278

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		12/04/19 08:25	12/04/19 12:50	1

Lab Sample ID: LCS 400-468278/15-A
Matrix: Water
Analysis Batch: 468679

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.00101	0.000927		mg/L		92	80 - 120

Lab Sample ID: 400-179658-B-3-C MS
Matrix: Water
Analysis Batch: 468671

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 468278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.000070	U	0.00201	0.00227		mg/L		112	80 - 120

Lab Sample ID: 400-179658-B-3-D MSD
Matrix: Water
Analysis Batch: 468671

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 468278

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	0.000070	U	0.00201	0.00215		mg/L		107	80 - 120	5	20

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

Lab Sample ID: MB 400-466529/1
Matrix: Water
Analysis Batch: 466529

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	6.8	U	10	6.8	mg/L			11/19/19 11:50	1

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

Lab Sample ID: LCS 400-466529/2
Matrix: Water
Analysis Batch: 466529

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids Field Filtered			293	322		mg/L		110	78 - 122		

Lab Sample ID: 400-179702-A-23 DU
Matrix: Water
Analysis Batch: 466529

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids Field Filtered	1100			1240	J3	mg/L				12	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467497/6
Matrix: Water
Analysis Batch: 467497

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride, Dissolved	1.4	U	2.0	1.4	mg/L			11/25/19 20:03	1

Lab Sample ID: LCS 400-467497/7
Matrix: Water
Analysis Batch: 467497

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved			30.0	32.1		mg/L		107	90 - 110		

Lab Sample ID: MRL 400-467497/3
Matrix: Water
Analysis Batch: 467497

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved			2.00	1.26	I	mg/L		63	50 - 150		

Lab Sample ID: 400-179849-F-1 MS
Matrix: Water
Analysis Batch: 467497

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved	3.3		10.0	14.6		mg/L		113	73 - 120		

Lab Sample ID: 400-179849-F-1 MSD
Matrix: Water
Analysis Batch: 467497

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride, Dissolved	3.3		10.0	14.3		mg/L		109	73 - 120	3	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-469081/3
Matrix: Water
Analysis Batch: 469081

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride, Dissolved	0.120		0.10	0.032	mg/L			12/06/19 14:29	1

Lab Sample ID: LCS 400-469081/4
Matrix: Water
Analysis Batch: 469081

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	4.00	4.20		mg/L		105	90 - 110

Lab Sample ID: 400-179608-B-1 MS
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	0.032	U	1.00	0.850	V	mg/L		85	75 - 125

Lab Sample ID: 400-179608-B-1 MSD
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride, Dissolved	0.032	U	1.00	0.800	V J3	mg/L		80	75 - 125	6	4

Lab Sample ID: 400-179658-A-1 MS
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	0.050	I V	1.00	0.620	V J3	mg/L		57	75 - 125

Lab Sample ID: 400-179658-A-1 MSD
Matrix: Water
Analysis Batch: 469081

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride, Dissolved	0.050	I V	1.00	0.800	V J3	mg/L		75	75 - 125	25	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-468436/6
Matrix: Water
Analysis Batch: 468436

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate, Dissolved	1.4	U	5.0	1.4	mg/L			12/03/19 10:45	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-468436/7
Matrix: Water
Analysis Batch: 468436

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved			15.0	14.0		mg/L		93	90 - 110		

Lab Sample ID: MRL 400-468436/3
Matrix: Water
Analysis Batch: 468436

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved			5.00	5.73		mg/L		115	50 - 150		

Lab Sample ID: 400-180385-B-1 MS
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved	63		10.0	65.0	J3	mg/L		21	77 - 128		

Lab Sample ID: 400-180385-B-1 MSD
Matrix: Water
Analysis Batch: 468436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate, Dissolved	63		10.0	64.1	J3	mg/L		13	77 - 128	1	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

400-179658 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Rad 226/228 FF	Cl, F, SO4, TDS FF	6020, 7470 FF	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D					
PZ-200S	11/15/19	0902	G	Water			X	X		X					
PZ-200D	11/14/19	1127		Water											
GSA-2S	11/15/19	0830		Water											
PZ-201D	11/14/19	1435		Water											
PZ-203D	11/14/19	0905		Water											
GE-1D	11/14/19	1500		Water											
Dup-01	11/14/19	0805		Water											
EB-01	11/14/19	1000	G	Water											
FB-01	11/15/19	0850	G	Water			X	X		X					~~.45 filter~~ PE
PZ-200D FF	11/14/19	1127	G	Water							X	X	X		.45 filter
FF GE-1D	11/14/19	1500	G	Water							X	X	X		.45 filter

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Owen	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.3, 4.7, 4.9, 10.5°C IR

Ver: 01/16/2019

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required
Email: richard.markey@nexteraenergy.com	WO #:
Project Name: CCR Plant Crist	Project #: 40005424
Site: GSA Delineation Sampling	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg															Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D																
[redacted] Dup-02	11/15/19	0802	G	Water			X	X		X																
[redacted]				Water																						
[redacted]				Water																						
[redacted]				Water																						
[redacted]				Water																						
[redacted]				Water																						
				Water																						
				Water																						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Avery	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-3
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 °C, 4.7 °C, 4.9 °C , 10.5 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-3
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179658-4
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/17/2019 5:33:39 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179658-4

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179658-4

RAD

Methods 9315: Radium-226 Prep Batch 160-451387. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FF GE-1D (400-179658-11), (LCS 160-451387/1-A), (LCSD 160-451387/2-A) and (MB 160-451387/13-A)

Methods 9320: Radium-228 Prep Batch 160-451391. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FF GE-1D (400-179658-11), (LCS 160-451391/1-A), (LCSD 160-451391/2-A) and (MB 160-451391/13-A)

Method PrecSep_0: Radium 228 Prep Batch 160-451391. Insufficient sample volume was available to perform a sample duplicate for the following samples: FF GE-1D (400-179658-11). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-451387. Insufficient sample volume was available to perform a sample duplicate for the following samples: FF GE-1D (400-179658-11). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179658-11	FF GE-1D	Water	11/14/19 15:00	11/15/19 10:27	

Client Sample ID: FF GE-1D

Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.336		0.103	0.108	1.00	0.101	pCi/L	11/20/19 15:51	12/12/19 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/20/19 15:51*	*12/12/19 11:47*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.894		0.300	0.311	1.00	0.412	pCi/L	11/20/19 17:09	11/25/19 09:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*
Y Carrier	*86.4*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.23		0.317	0.329	5.00	0.412	pCi/L		12/16/19 07:20	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Client Sample ID: FF GE-1D
Date Collected: 11/14/19 15:00
Date Received: 11/15/19 10:27

Lab Sample ID: 400-179658-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			451387	11/20/19 15:51	ORM	TAL SL
Dissolved	Analysis	9315		1	454077	12/12/19 11:47	KLS	TAL SL
Dissolved	Prep	PrecSep_0			451391	11/20/19 17:09	ORM	TAL SL
Dissolved	Analysis	9320		1	451884	11/25/19 09:15	AJD	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	454282	12/16/19 07:20	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Rad

Prep Batch: 451387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	PrecSep-21	
MB 160-451387/13-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-451387/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-451387/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 451391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179658-11	FF GE-1D	Dissolved	Water	PrecSep_0	
MB 160-451391/13-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-451391/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-451391/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-451387/13-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451387

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03096	U	0.0631	0.0631	1.00	0.112	pCi/L	11/20/19 15:55	12/12/19 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/20/19 15:55*	*12/12/19 11:47*	*1*

Lab Sample ID: LCS 160-451387/1-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451387

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.256		0.990	1.00	0.121	pCi/L	82	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*

Lab Sample ID: LCSD 160-451387/2-A
Matrix: Water
Analysis Batch: 454077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 451387

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.3	9.242		0.957	1.00	0.102	pCi/L	81	75 - 125	0.62	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-451391/13-A
Matrix: Water
Analysis Batch: 451884

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451391

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1771	U	0.242	0.243	1.00	0.454	pCi/L	11/20/19 17:09	11/25/19 09:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*
Y Carrier	*85.2*		*40 - 110*	*11/20/19 17:09*	*11/25/19 09:15*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-451391/1-A
Matrix: Water
Analysis Batch: 451886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451391

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.36	9.337		1.08	1.00	0.382	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: LCSD 160-451391/2-A
Matrix: Water
Analysis Batch: 451886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 451391

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			9.36	9.857		1.12	1.00	0.337	pCi/L	105	75 - 125	0.24	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*
Y Carrier	*87.1*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179658 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Rad 226/228 FF	Cl, F, SO4, TDS FF	6020, 7470 FF	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D					
PZ-200S	11/15/19	0902	G	Water			X	X		X					
PZ-200D	11/14/19	1127		Water											
GSA-2S	11/15/19	0830		Water											
PZ-201D	11/14/19	1435		Water											
PZ-203D	11/14/19	0905		Water											
GE-1D	11/14/19	1500		Water											
Dup-01	11/14/19	0805		Water											
EB-01	11/14/19	1000	G	Water											
FB-01	11/15/19	0850	G	Water			X	X		X					~~.45 filter~~ PE
PZ-200D FF	11/14/19	1127	G	Water							X	X	X		.45 filter
FF GE-1D	11/14/19	1500	G	Water							X	X	X		.45 filter

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Owen	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.3, 4.7, 4.9, 10.5°C IR)

Ver: 01/16/2019

12/17/2019

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Gulf Power Company				Job #:

Address: BIN 731 One Energy Place	Due Date Requested:
City: Pensacola	TAT Requested (days):
State, Zip: FL, 32520	
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required
Email: richard.markey@nexteraenergy.com	WO #:
Project Name: CCR Plant Crist	Project #: 40005424
Site: GSA Delineation Sampling	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
[redacted] Dup-02	11/15/19	0802	G	Water			X	X		X		
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
[redacted]				Water								
				Water								
				Water								

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/15/19 1027	RDH	Kathy R Avery	11/15/19 1027	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-4
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 °C, 4.7 °C, 4.9 °C , 10.5 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179658-4
SDG Number: GSA Delineation Sampling

Login Number: 179658
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/19/19 10:40 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179658-4
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	12-31-19

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179923-1
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/27/2019 10:45:41 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
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LINKS

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

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

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Certification Summary 22

Job ID: 400-179923-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179923-1

Metals

Method 6020: The method blank for preparation batch 400-467451 and analytical batch 400-468366 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467451 and analytical batch 400-468366 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-467451 and analytical batch 400-468179 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-467451 and analytical batch 400-469126 recovered outside control limits for the following analytes: Boron. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D — Lab Sample ID: 400-179923-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00020	I	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.031		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.035	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	4.5		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.00019	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	120		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.7		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	9.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.77				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-179923-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00019	I	0.00025	0.000078	mg/L	1		6020	Total Recoverable
Barium	0.031		0.0025	0.00070	mg/L	5		6020	Total Recoverable
Boron	0.034	V	0.010	0.0036	mg/L	1		6020	Total Recoverable
Calcium	4.2		0.050	0.025	mg/L	1		6020	Total Recoverable
Cobalt	0.00019	I	0.00050	0.00011	mg/L	1		6020	Total Recoverable
Lithium	0.00078	I	0.0010	0.00038	mg/L	1		6020	Total Recoverable
Total Dissolved Solids	98		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	9.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	6.77				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179923-1	PZ-200D	Water	11/20/19 13:05	11/20/19 16:30	
400-179923-3	DUP-02	Water	11/20/19 13:05	11/20/19 16:30	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.00020**	**I**	0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 19:04	1
Barium	**0.031**		0.0025	0.00070	mg/L		11/25/19 17:45	11/30/19 22:18	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/25/19 17:45	12/06/19 15:23	1
Boron	**0.035**	**V**	0.010	0.0036	mg/L		11/25/19 17:45	12/06/19 15:23	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/25/19 17:45	12/02/19 19:04	1
Calcium	**4.5**		0.050	0.025	mg/L		11/25/19 17:45	12/02/19 19:04	1
Cobalt	**0.00019**	**I**	0.00050	0.00011	mg/L		11/25/19 17:45	12/02/19 19:04	1
Lead	0.00029	U	0.0013	0.00029	mg/L		11/25/19 17:45	11/30/19 03:35	5
Lithium	0.0019	U	0.0050	0.0019	mg/L		11/25/19 17:45	12/05/19 19:20	5
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/25/19 17:45	12/06/19 15:23	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/25/19 17:45	12/02/19 19:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:17	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**120**		5.0	3.4	mg/L			11/21/19 13:17	1
Chloride	**3.7**		2.0	1.4	mg/L			11/25/19 22:16	1
Fluoride	**0.070**	**I**	0.10	0.032	mg/L			12/03/19 16:46	1
Sulfate	**9.6**		5.0	1.4	mg/L			11/26/19 20:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**6.77**				SU			11/20/19 13:05	1

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Client Sample ID: DUP-02
Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-3
Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00019	I	0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 19:14	1
Barium	0.031		0.0025	0.00070	mg/L		11/25/19 17:45	11/30/19 22:23	5
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/25/19 17:45	12/05/19 19:25	1
Boron	0.034	V	0.010	0.0036	mg/L		11/25/19 17:45	12/06/19 15:28	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/25/19 17:45	12/02/19 19:14	1
Calcium	4.2		0.050	0.025	mg/L		11/25/19 17:45	12/02/19 19:14	1
Cobalt	0.00019	I	0.00050	0.00011	mg/L		11/25/19 17:45	12/02/19 19:14	1
Lead	0.00029	U	0.0013	0.00029	mg/L		11/25/19 17:45	11/30/19 03:40	5
Lithium	0.00078	I	0.0010	0.00038	mg/L		11/25/19 17:45	12/05/19 19:25	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/25/19 17:45	12/05/19 19:25	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/25/19 17:45	12/02/19 19:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:21	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	98		5.0	3.4	mg/L			11/21/19 13:17	1
Chloride	3.3		2.0	1.4	mg/L			11/25/19 22:19	1
Fluoride	0.070	I	0.10	0.032	mg/L			12/03/19 16:54	1
Sulfate	9.6		5.0	1.4	mg/L			11/26/19 20:53	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.77				SU			11/20/19 13:05	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
L	Off-scale high. Actual value is known to be greater than the value given.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D
Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	468043	11/30/19 03:35	AW	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	468179	11/30/19 22:18	LDC	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 19:04	LDC	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	468995	12/05/19 19:20	AW	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469126	12/06/19 15:23	AC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:17	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:46	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	467673	11/26/19 20:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/20/19 13:05	EHS	TAL PEN

Client Sample ID: DUP-02
Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	468043	11/30/19 03:40	AW	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		5	468179	11/30/19 22:23	LDC	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468366	12/02/19 19:14	LDC	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	468995	12/05/19 19:25	AW	TAL PEN
Total Recoverable	Prep	3005A			467451	11/25/19 17:45	KWN	TAL PEN
Total Recoverable	Analysis	6020		1	469126	12/06/19 15:28	AC	TAL PEN
Total/NA	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1	468250	12/02/19 12:21	JAP	TAL PEN
Total/NA	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:19	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	468526	12/03/19 16:54	MAF	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	467673	11/26/19 20:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	470839	11/20/19 13:05	EHS	TAL PEN

Laboratory References:
TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 467451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	3005A	
400-179923-3	DUP-02	Total Recoverable	Water	3005A	
MB 400-467451/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-467451/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
600-196193-C-7-E MS	Matrix Spike	Total Recoverable	Water	3005A	
600-196193-C-7-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 467720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	7470A	
400-179923-3	DUP-02	Total/NA	Water	7470A	
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 468043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	6020	467451
400-179923-3	DUP-02	Total Recoverable	Water	6020	467451
600-196193-C-7-E MS	Matrix Spike	Total Recoverable	Water	6020	467451
600-196193-C-7-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467451

Analysis Batch: 468179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	6020	467451
400-179923-3	DUP-02	Total Recoverable	Water	6020	467451
600-196193-C-7-E MS	Matrix Spike	Total Recoverable	Water	6020	467451
600-196193-C-7-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467451

Analysis Batch: 468250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	7470A	467720
400-179923-3	DUP-02	Total/NA	Water	7470A	467720
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	467720
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	467720
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	467720
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	467720

Analysis Batch: 468366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	6020	467451
400-179923-3	DUP-02	Total Recoverable	Water	6020	467451
MB 400-467451/1-A	Method Blank	Total Recoverable	Water	6020	467451
600-196193-C-7-E MS	Matrix Spike	Total Recoverable	Water	6020	467451
600-196193-C-7-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	6020	467451

Analysis Batch: 468995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	6020	467451
400-179923-3	DUP-02	Total Recoverable	Water	6020	467451

Metals (Continued)

Analysis Batch: 468995 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-467451/2-A	Lab Control Sample	Total Recoverable	Water	6020	467451

Analysis Batch: 469126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total Recoverable	Water	6020	467451
400-179923-3	DUP-02	Total Recoverable	Water	6020	467451

General Chemistry

Analysis Batch: 466936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	SM 2540C	
400-179923-3	DUP-02	Total/NA	Water	SM 2540C	
MB 400-466936/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466936/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179923-1 DU	PZ-200D	Total/NA	Water	SM 2540C	

Analysis Batch: 467500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	SM 4500 Cl- E	
400-179923-3	DUP-02	Total/NA	Water	SM 4500 Cl- E	
MB 400-467500/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467500/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467500/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 467673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	SM 4500 SO4 E	
400-179923-3	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-467673/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-467673/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-467673/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179923-1 MS	PZ-200D	Total/NA	Water	SM 4500 SO4 E	
400-179923-1 MSD	PZ-200D	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	SM 4500 F C	
400-179923-3	DUP-02	Total/NA	Water	SM 4500 F C	
MB 400-468526/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-468526/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Field Service / Mobile Lab

Analysis Batch: 470839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	Field Sampling	
400-179923-3	DUP-02	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-467451/1-A
Matrix: Water
Analysis Batch: 468366

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000078	U	0.00025	0.000078	mg/L		11/25/19 17:45	12/02/19 16:18	1
Barium	0.000295	I	0.00050	0.00014	mg/L		11/25/19 17:45	12/02/19 16:18	1
Beryllium	0.000034	U	0.00050	0.000034	mg/L		11/25/19 17:45	12/02/19 16:18	1
Boron	0.0036	U	0.010	0.0036	mg/L		11/25/19 17:45	12/02/19 16:18	1
Cadmium	0.000056	U	0.00050	0.000056	mg/L		11/25/19 17:45	12/02/19 16:18	1
Calcium	0.025	U	0.050	0.025	mg/L		11/25/19 17:45	12/02/19 16:18	1
Cobalt	0.00011	U	0.00050	0.00011	mg/L		11/25/19 17:45	12/02/19 16:18	1
Lead	0.000058	U	0.00025	0.000058	mg/L		11/25/19 17:45	12/02/19 16:18	1
Lithium	0.00038	U	0.0010	0.00038	mg/L		11/25/19 17:45	12/02/19 16:18	1
Selenium	0.00016	U	0.00025	0.00016	mg/L		11/25/19 17:45	12/02/19 16:18	1
Thallium	0.000024	U	0.00010	0.000024	mg/L		11/25/19 17:45	12/02/19 16:18	1

Lab Sample ID: LCS 400-467451/2-A
Matrix: Water
Analysis Batch: 468995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0471		mg/L		94	80 - 120
Barium	0.0500	0.0480		mg/L		96	80 - 120
Beryllium	0.0500	0.0424		mg/L		85	80 - 120
Boron	0.100	0.0993		mg/L		99	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Calcium	5.00	4.68		mg/L		94	80 - 120
Cobalt	0.0500	0.0492		mg/L		98	80 - 120
Lead	0.0500	0.0474		mg/L		95	80 - 120
Lithium	0.0500	0.0487		mg/L		97	80 - 120
Selenium	0.0500	0.0442		mg/L		88	80 - 120
Thallium	0.0100	0.00909		mg/L		91	80 - 120

Lab Sample ID: 600-196193-C-7-E MS
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.16		0.0500	0.211		mg/L		94	75 - 125
Cadmium	0.000084	I	0.0500	0.0407		mg/L		81	75 - 125
Lead	0.0078		0.0500	0.0542		mg/L		93	75 - 125
Thallium	0.000091	I J3	0.0100	0.00688	J3	mg/L		68	75 - 125

Lab Sample ID: 600-196193-C-7-E MS
Matrix: Water
Analysis Batch: 468179

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0038		0.0500	0.0413		mg/L		75	75 - 125
Barium	0.18		0.0500	0.234		mg/L		104	75 - 125
Boron	0.67	V J3 L	0.100	0.768	L	mg/L		102	75 - 125
Cadmium	0.00023	I	0.0500	0.0425		mg/L		84	75 - 125
Cobalt	0.0027		0.0500	0.0401		mg/L		75	75 - 125

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

Lab Sample ID: 600-196193-C-7-E MS
Matrix: Water
Analysis Batch: 468179

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0079		0.0500	0.0551		mg/L		94	75 - 125
Lithium	0.24	L	0.0500	0.297	L	mg/L		111	75 - 125
Selenium	0.00043		0.0500	0.0418		mg/L		83	75 - 125
Thallium	0.000099	I	0.0100	0.00770		mg/L		76	75 - 125

Lab Sample ID: 600-196193-C-7-E MS
Matrix: Water
Analysis Batch: 468366

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0035		0.0500	0.0408		mg/L		75	75 - 125
Cadmium	0.00013	I	0.0500	0.0394		mg/L		79	75 - 125
Thallium	0.00011		0.0100	0.00754	J3	mg/L		74	75 - 125

Lab Sample ID: 600-196193-C-7-F MSD
Matrix: Water
Analysis Batch: 468043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.16		0.0500	0.198	J3	mg/L		68	75 - 125	6	20
Cadmium	0.000084	I	0.0500	0.0407		mg/L		81	75 - 125	0	20
Lead	0.0078		0.0500	0.0543		mg/L		93	75 - 125	0	20
Thallium	0.000091	I J3	0.0100	0.00705	J3	mg/L		70	75 - 125	2	20

Lab Sample ID: 600-196193-C-7-F MSD
Matrix: Water
Analysis Batch: 468179

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0038		0.0500	0.0416		mg/L		76	75 - 125	1	20
Barium	0.18		0.0500	0.222		mg/L		81	75 - 125	5	20
Boron	0.67	V J3 L	0.100	0.757	L	mg/L		91	75 - 125	1	20
Cadmium	0.00023	I	0.0500	0.0428		mg/L		85	75 - 125	1	20
Cobalt	0.0027		0.0500	0.0408		mg/L		76	75 - 125	2	20
Lead	0.0079		0.0500	0.0562		mg/L		97	75 - 125	2	20
Lithium	0.24	L	0.0500	0.292	L	mg/L		101	75 - 125	2	20
Selenium	0.00043		0.0500	0.0425		mg/L		84	75 - 125	2	20
Thallium	0.000099	I	0.0100	0.00772		mg/L		76	75 - 125	0	20

Lab Sample ID: 600-196193-C-7-F MSD
Matrix: Water
Analysis Batch: 468366

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 467451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0035		0.0500	0.0416		mg/L		76	75 - 125	2	20
Cadmium	0.00013	I	0.0500	0.0400		mg/L		80	75 - 125	2	20
Thallium	0.00011		0.0100	0.00760		mg/L		75	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-467720/14-A
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467720

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:14	1

Lab Sample ID: LCS 400-467720/15-A
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00101	0.00102		mg/L		101	80 - 120

Lab Sample ID: 400-179960-I-2-D MS
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000085	I	0.00201	0.00202		mg/L		96	80 - 120

Lab Sample ID: 400-179960-I-2-E MSD
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000085	I	0.00201	0.00195		mg/L		93	80 - 120	3	20

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

Lab Sample ID: MB 400-466936/1
Matrix: Water
Analysis Batch: 466936

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1

Lab Sample ID: LCS 400-466936/2
Matrix: Water
Analysis Batch: 466936

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	356		mg/L		122	78 - 122

Lab Sample ID: 400-179923-1 DU
Matrix: Water
Analysis Batch: 466936

Client Sample ID: PZ-200D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		130		mg/L		5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467500/6
Matrix: Water
Analysis Batch: 467500

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4	U	2.0	1.4	mg/L			11/25/19 22:16	1

Lab Sample ID: LCS 400-467500/7
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.6		mg/L		109	90 - 110

Lab Sample ID: MRL 400-467500/3
Matrix: Water
Analysis Batch: 467500

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.35	I	mg/L		68	50 - 150

Lab Sample ID: 400-179973-B-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.6		10.0	17.2		mg/L		116	73 - 120

Lab Sample ID: 400-179973-B-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.6		10.0	16.8		mg/L		113	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-468526/15
Matrix: Water
Analysis Batch: 468526

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.032	U	0.10	0.032	mg/L			12/03/19 15:12	1

Lab Sample ID: LCS 400-468526/14
Matrix: Water
Analysis Batch: 468526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.20		mg/L		105	90 - 110

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 240-122625-F-1 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.26		1.00	1.28		mg/L		102	75 - 125		

Lab Sample ID: 240-122625-F-1 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.26		1.00	1.23		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-180015-B-3 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.54		1.00	1.44		mg/L		90	75 - 125		

Lab Sample ID: 400-180015-B-3 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.54		1.00	1.53	J3	mg/L		99	75 - 125	6	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-467673/6
Matrix: Water
Analysis Batch: 467673

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.4	U	5.0	1.4	mg/L			11/26/19 20:53	1

Lab Sample ID: LCS 400-467673/7
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			15.0	15.9		mg/L		106	90 - 110		

Lab Sample ID: MRL 400-467673/3
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.62		mg/L		112	50 - 150		

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 400-179923-1 MS
Matrix: Water
Analysis Batch: 467673

Client Sample ID: PZ-200D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	9.6		10.0	19.9		mg/L		103	77 - 128		

Lab Sample ID: 400-179923-1 MSD
Matrix: Water
Analysis Batch: 467673

Client Sample ID: PZ-200D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	9.6		10.0	20.5		mg/L		109	77 - 128	3	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179923 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
PZ-200D	11-20-19	1305	G	Water			X	X	X	X		
PZ-200D FF	11-20-19	1305	G	Water	X		X	X	X	X		
DUP-02	11-20-19	1305	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-20-19 1630	RPH	Kathy Raven	11-20-19 1630	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.3°C IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-1
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-1
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179923-2
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 3:26:22 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179923-2

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179923-2

RAD

Method 9315: Radium 226 Prep Batch 160-452212. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-179923-1), DUP-02 (400-179923-3), (LCS 160-452212/1-A), (MB 160-452212/20-A), (160-36489-A-1-A) and (160-36489-B-1-A DU)

Method 9320: Radium-228 Prep Batch 160-452214. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D (400-179923-1), DUP-02 (400-179923-3), (LCS 160-452214/1-A), (MB 160-452214/20-A), (160-36489-A-1-B) and (160-36489-B-1-B DU)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179923-1	PZ-200D	Water	11/20/19 13:05	11/20/19 16:30	
400-179923-3	DUP-02	Water	11/20/19 13:05	11/20/19 16:30	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.228		0.0986	0.101	1.00	0.119	pCi/L	11/27/19 09:12	12/23/19 09:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:50*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.667		0.314	0.320	1.00	0.461	pCi/L	11/27/19 09:32	12/06/19 12:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.895		0.329	0.336	5.00	0.461	pCi/L		01/06/20 12:16	1

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Client Sample ID: DUP-02

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.259		0.111	0.113	1.00	0.137	pCi/L	11/27/19 09:12	12/23/19 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:51*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.631		0.306	0.311	1.00	0.450	pCi/L	11/27/19 09:32	12/06/19 12:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.890		0.326	0.331	5.00	0.450	pCi/L		01/06/20 12:16	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:52	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455804	01/06/20 12:16	SMP	TAL SL

Client Sample ID: DUP-02

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Total/NA	Analysis	9315		1	455038	12/23/19 09:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Total/NA	Analysis	9320		1	453313	12/06/19 12:52	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	455804	01/06/20 12:16	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Rad

Prep Batch: 452212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	PrecSep-21	
400-179923-3	DUP-02	Total/NA	Water	PrecSep-21	
MB 160-452212/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452212/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-36489-B-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 452214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-1	PZ-200D	Total/NA	Water	PrecSep_0	
400-179923-3	DUP-02	Total/NA	Water	PrecSep_0	
MB 160-452214/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-452214/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-36489-B-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-452212/20-A
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452212

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01737	U	0.0472	0.0473	1.00	0.104	pCi/L	11/27/19 09:12	12/23/19 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 11:47*	*1*

Lab Sample ID: LCS 160-452212/1-A
Matrix: Water
Analysis Batch: 455038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452212

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.63		1.09	1.00	0.112	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.0*		*40 - 110*

Lab Sample ID: 160-36489-B-1-A DU
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452212

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.150			0.3859		0.133	1.00	0.121	pCi/L			1.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*65.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-452214/20-A
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452214

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1447	U	0.267	0.268	1.00	0.454	pCi/L	11/27/19 09:32	12/06/19 12:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:56*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:56*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-452214/1-A
Matrix: Water
Analysis Batch: 453313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452214

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.33	9.918		1.14	1.00	0.407	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.0*		*40 - 110*
Y Carrier	*84.9*		*40 - 110*

Lab Sample ID: 160-36489-B-1-B DU
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452214

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.32			1.131		0.437	1.00	0.593	pCi/L			0.23	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*65.1*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

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Client Information	Sampler:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179923 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
PZ-200D	11-20-19	1305	G	Water			X	X	X	X		
PZ-200D FF	11-20-19	1305	G	Water	X		X	X	X	X		
DUP-02	11-20-19	1305	G	Water			X	X	X	X		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-20-19 1630	RPH	Kathy Raven	11-20-19 1630	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.3°C IR8

Ver: 01/16/2019

1/10/2020

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-2
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-2
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/26/19 12:30 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19 *
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19 *
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-2
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179923-3
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
12/27/2019 10:46:04 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179923-3

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179923-3

Metals
Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-468674 and analytical batch 400-469126 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Detection Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D FF

Lab Sample ID: 400-179923-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium, Dissolved	0.030		0.0025	0.00070	mg/L	5		6020	Dissolved
Boron, Dissolved	0.063		0.050	0.018	mg/L	5		6020	Dissolved
Calcium, Dissolved	4.5		0.25	0.13	mg/L	5		6020	Dissolved
Total Dissolved Solids Field Filtered	110		5.0	3.4	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	3.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Dissolved
Fluoride, Dissolved	0.070	I	0.10	0.032	mg/L	1		SM 4500 F C	Dissolved
Sulfate, Dissolved	8.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Dissolved

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179923-2	PZ-200D FF	Water	11/20/19 13:05	11/20/19 16:30	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D FF

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-2

Matrix: Water

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.00039	U	0.0013	0.00039	mg/L		12/04/19 16:52	12/06/19 20:10	5
Barium, Dissolved	**0.030**		0.0025	0.00070	mg/L		12/04/19 16:52	12/06/19 20:10	5
Beryllium, Dissolved	0.00017	U	0.0025	0.00017	mg/L		12/04/19 16:52	12/06/19 20:10	5
Boron, Dissolved	**0.063**		0.050	0.018	mg/L		12/04/19 16:52	12/09/19 15:27	5
Cadmium, Dissolved	0.00028	U	0.0025	0.00028	mg/L		12/04/19 16:52	12/06/19 20:10	5
Calcium, Dissolved	**4.5**		0.25	0.13	mg/L		12/04/19 16:52	12/06/19 20:10	5
Cobalt, Dissolved	0.00056	U	0.0025	0.00056	mg/L		12/04/19 16:52	12/06/19 20:10	5
Lead, Dissolved	0.00029	U	0.0013	0.00029	mg/L		12/04/19 16:52	12/06/19 20:10	5
Lithium, Dissolved	0.0019	U	0.0050	0.0019	mg/L		12/04/19 16:52	12/06/19 20:10	5
Selenium, Dissolved	0.00082	U	0.0013	0.00082	mg/L		12/04/19 16:52	12/06/19 20:10	5
Thallium, Dissolved	0.00012	U	0.00050	0.00012	mg/L		12/04/19 16:52	12/06/19 20:10	5

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	**110**		5.0	3.4	mg/L			11/21/19 13:17	1
Chloride, Dissolved	**3.0**		2.0	1.4	mg/L			11/25/19 22:16	1
Fluoride, Dissolved	**0.070**	**I**	0.10	0.032	mg/L			12/03/19 16:50	1
Sulfate, Dissolved	**8.7**		5.0	1.4	mg/L			11/26/19 20:53	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D FF

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			468674	12/04/19 16:52	KWN	TAL PEN
Dissolved	Analysis	6020		5	469126	12/06/19 20:10	AC	TAL PEN
Dissolved	Prep	3005A			468674	12/04/19 16:52	KWN	TAL PEN
Dissolved	Analysis	6020		5	469389	12/09/19 15:27	LDC	TAL PEN
Dissolved	Prep	7470A			467720	12/02/19 08:11	JAP	TAL PEN
Dissolved	Analysis	7470A		1	468250	12/02/19 12:19	JAP	TAL PEN
Dissolved	Analysis	SM 2540C		1	466936	11/21/19 13:17	CLB	TAL PEN
Dissolved	Analysis	SM 4500 Cl- E		1	467500	11/25/19 22:16	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1	468526	12/03/19 16:50	MAF	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		1	467673	11/26/19 20:53	RRC	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Metals

Prep Batch: 467720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	7470A	
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 468250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	7470A	467720
MB 400-467720/14-A	Method Blank	Total/NA	Water	7470A	467720
LCS 400-467720/15-A	Lab Control Sample	Total/NA	Water	7470A	467720
400-179960-I-2-D MS	Matrix Spike	Total/NA	Water	7470A	467720
400-179960-I-2-E MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	467720

Prep Batch: 468674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	3005A	
MB 400-468674/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-468674/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
400-180570-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-180570-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 469126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	6020	468674
MB 400-468674/1-A ^5	Method Blank	Total Recoverable	Water	6020	468674
LCS 400-468674/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020	468674
400-180570-H-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	468674
400-180570-H-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	468674

Analysis Batch: 469389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	6020	468674

General Chemistry

Analysis Batch: 466936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	SM 2540C	
MB 400-466936/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-466936/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-179923-B-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 467500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	SM 4500 Cl- E	
MB 400-467500/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-467500/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-467500/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-179973-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

General Chemistry

Analysis Batch: 467673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	SM 4500 SO4 E	
MB 400-467673/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-467673/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-467673/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-179923-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-179923-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 468526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	SM 4500 F C	
MB 400-468526/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-468526/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
240-122625-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-180015-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-468674/1-A ^5
Matrix: Water
Analysis Batch: 469126

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 468674

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	0.00039	U	0.0013	0.00039	mg/L		12/04/19 16:52	12/06/19 18:12	5
Barium, Dissolved	0.00070	U	0.0025	0.00070	mg/L		12/04/19 16:52	12/06/19 18:12	5
Beryllium, Dissolved	0.00017	U	0.0025	0.00017	mg/L		12/04/19 16:52	12/06/19 18:12	5
Boron, Dissolved	0.018	U	0.050	0.018	mg/L		12/04/19 16:52	12/06/19 18:12	5
Cadmium, Dissolved	0.00028	U	0.0025	0.00028	mg/L		12/04/19 16:52	12/06/19 18:12	5
Calcium, Dissolved	0.13	U	0.25	0.13	mg/L		12/04/19 16:52	12/06/19 18:12	5
Cobalt, Dissolved	0.00056	U	0.0025	0.00056	mg/L		12/04/19 16:52	12/06/19 18:12	5
Lead, Dissolved	0.00029	U	0.0013	0.00029	mg/L		12/04/19 16:52	12/06/19 18:12	5
Lithium, Dissolved	0.0019	U	0.0050	0.0019	mg/L		12/04/19 16:52	12/06/19 18:12	5
Selenium, Dissolved	0.00082	U	0.0013	0.00082	mg/L		12/04/19 16:52	12/06/19 18:12	5
Thallium, Dissolved	0.000155	I	0.00050	0.00012	mg/L		12/04/19 16:52	12/06/19 18:12	5

Lab Sample ID: LCS 400-468674/2-A ^5
Matrix: Water
Analysis Batch: 469126

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 468674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0500	0.0495		mg/L		99	80 - 120
Barium, Dissolved	0.0500	0.0486		mg/L		97	80 - 120
Beryllium, Dissolved	0.0500	0.0490		mg/L		98	80 - 120
Boron, Dissolved	0.100	0.102		mg/L		102	80 - 120
Cadmium, Dissolved	0.0500	0.0523		mg/L		105	80 - 120
Calcium, Dissolved	5.00	5.12		mg/L		102	80 - 120
Cobalt, Dissolved	0.0500	0.0502		mg/L		100	80 - 120
Lead, Dissolved	0.0500	0.0472		mg/L		94	80 - 120
Lithium, Dissolved	0.0500	0.0462		mg/L		92	80 - 120
Selenium, Dissolved	0.0500	0.0522		mg/L		104	80 - 120
Thallium, Dissolved	0.0100	0.00861		mg/L		86	80 - 120

Lab Sample ID: 400-180570-H-1-B MS ^5
Matrix: Water
Analysis Batch: 469126

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 468674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic, Dissolved	0.0038		0.0500	0.0562		mg/L		105	75 - 125
Barium, Dissolved	0.047		0.0500	0.102		mg/L		110	75 - 125
Beryllium, Dissolved	0.00017	U	0.0500	0.0514		mg/L		103	75 - 125
Boron, Dissolved	1.3		0.100	1.62	J3	mg/L		294	75 - 125
Cadmium, Dissolved	0.00028	U	0.0500	0.0554		mg/L		111	75 - 125
Calcium, Dissolved	33		5.00	43.1	J3	mg/L		201	75 - 125
Cobalt, Dissolved	0.0037		0.0500	0.0572		mg/L		107	75 - 125
Lead, Dissolved	0.00029	U	0.0500	0.0490		mg/L		98	75 - 125
Lithium, Dissolved	0.0019	U	0.0500	0.0485		mg/L		97	75 - 125
Selenium, Dissolved	0.00082	U	0.0500	0.0534		mg/L		107	75 - 125
Thallium, Dissolved	0.00036	I V	0.0100	0.00966		mg/L		93	75 - 125

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

Lab Sample ID: 400-180570-H-1-C MSD ^5
Matrix: Water
Analysis Batch: 469126

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 468674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic, Dissolved	0.0038		0.0500	0.0564		mg/L		105	75 - 125	0	20
Barium, Dissolved	0.047		0.0500	0.0993		mg/L		106	75 - 125	2	20
Beryllium, Dissolved	0.00017	U	0.0500	0.0498		mg/L		100	75 - 125	3	20
Boron, Dissolved	1.3		0.100	1.61	J3	mg/L		291	75 - 125	0	20
Cadmium, Dissolved	0.00028	U	0.0500	0.0536		mg/L		107	75 - 125	3	20
Calcium, Dissolved	33		5.00	43.5	J3	mg/L		209	75 - 125	1	20
Cobalt, Dissolved	0.0037		0.0500	0.0555		mg/L		104	75 - 125	3	20
Lead, Dissolved	0.00029	U	0.0500	0.0486		mg/L		97	75 - 125	1	20
Lithium, Dissolved	0.0019	U	0.0500	0.0477		mg/L		95	75 - 125	2	20
Selenium, Dissolved	0.00082	U	0.0500	0.0471		mg/L		94	75 - 125	13	20
Thallium, Dissolved	0.00036	I V	0.0100	0.00910		mg/L		87	75 - 125	6	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-467720/14-A
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467720

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.000070	U	0.00020	0.000070	mg/L		12/02/19 08:11	12/02/19 12:14	1

Lab Sample ID: LCS 400-467720/15-A
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.00101	0.00102		mg/L		101	80 - 120

Lab Sample ID: 400-179960-I-2-D MS
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.000085	I	0.00201	0.00202		mg/L		96	80 - 120

Lab Sample ID: 400-179960-I-2-E MSD
Matrix: Water
Analysis Batch: 468250

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 467720

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	0.000085	I	0.00201	0.00195		mg/L		93	80 - 120	3	20

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

Lab Sample ID: MB 400-466936/1
Matrix: Water
Analysis Batch: 466936

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids Field Filtered	3.4	U	5.0	3.4	mg/L			11/21/19 13:17	1

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

Lab Sample ID: LCS 400-466936/2
Matrix: Water
Analysis Batch: 466936

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids Field Filtered			293	356		mg/L		122	78 - 122		

Lab Sample ID: 400-179923-B-1 DU
Matrix: Water
Analysis Batch: 466936

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids Field Filtered	120			130		mg/L				5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-467500/6
Matrix: Water
Analysis Batch: 467500

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride, Dissolved	1.4	U	2.0	1.4	mg/L			11/25/19 22:16	1

Lab Sample ID: LCS 400-467500/7
Matrix: Water
Analysis Batch: 467500

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved			30.0	32.6		mg/L		109	90 - 110		

Lab Sample ID: MRL 400-467500/3
Matrix: Water
Analysis Batch: 467500

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved			2.00	1.35	I	mg/L		68	50 - 150		

Lab Sample ID: 400-179973-B-1 MS
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride, Dissolved	5.6		10.0	17.2		mg/L		116	73 - 120		

Lab Sample ID: 400-179973-B-1 MSD
Matrix: Water
Analysis Batch: 467500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride, Dissolved	5.6		10.0	16.8		mg/L		113	73 - 120	2	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-468526/15
Matrix: Water
Analysis Batch: 468526

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride, Dissolved	0.032	U	0.10	0.032	mg/L			12/03/19 15:12	1

Lab Sample ID: LCS 400-468526/14
Matrix: Water
Analysis Batch: 468526

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	4.00	4.20		mg/L		105	90 - 110

Lab Sample ID: 240-122625-F-1 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	0.26		1.00	1.28		mg/L		102	75 - 125

Lab Sample ID: 240-122625-F-1 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride, Dissolved	0.26		1.00	1.23		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-180015-B-3 MS
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	0.54		1.00	1.44		mg/L		90	75 - 125

Lab Sample ID: 400-180015-B-3 MSD
Matrix: Water
Analysis Batch: 468526

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride, Dissolved	0.54		1.00	1.53	J3	mg/L		99	75 - 125	6	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-467673/6
Matrix: Water
Analysis Batch: 467673

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

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate, Dissolved	1.4	U	5.0	1.4	mg/L			11/26/19 20:53	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 400-467673/7
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved			15.0	15.9		mg/L		106	90 - 110		

Lab Sample ID: MRL 400-467673/3
Matrix: Water
Analysis Batch: 467673

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved			5.00	5.62		mg/L		112	50 - 150		

Lab Sample ID: 400-179923-B-1 MS
Matrix: Water
Analysis Batch: 467673

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate, Dissolved	9.6		10.0	19.9		mg/L		103	77 - 128		

Lab Sample ID: 400-179923-B-1 MSD
Matrix: Water
Analysis Batch: 467673

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate, Dissolved	9.6		10.0	20.5		mg/L		109	77 - 128	3	5

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company		Analysis Requested		Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			Preservation Codes:
City: Pensacola	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			Other:
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Cd,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
PZ-200D	11-20-19	1305	6	Water			X	X	X	X		
PZ-200D FF	11-20-19	1305	6	Water	X		X	X	X	X		
DUP-02	11-20-19	1305	6	Water			X	X	X	X		

400-179923 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-20-19 1630	RPH	Kathy Raven	11-20-19 1630	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.3°C IR8

Ver: 01/16/2019

12/27/2019

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-3
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-3
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Louisiana (DW)	State	<cert No.>	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-179923-4
Laboratory Sample Delivery Group: GSA Delineation Sampling
Client Project/Site: CCR Plant Crist

For:
Gulf Power Company
BIN 731
One Energy Place
Pensacola, Florida 32520

Attn: Mr. Mike Markey

Cheyenne R Whitmire

Authorized for release by:
1/10/2020 3:26:42 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Job ID: 400-179923-4

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-179923-4

RAD

Method 9315: Radium 226 Prep Batch 160-452212. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D FF (400-179923-2), (LCS 160-452212/1-A), (MB 160-452212/20-A), (160-36489-A-1-A) and (160-36489-B-1-A DU)

Method 9320: Radium-228 Prep Batch 160-452214. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. PZ-200D FF (400-179923-2), (LCS 160-452214/1-A), (MB 160-452214/20-A), (160-36489-A-1-B) and (160-36489-B-1-B DU)

Method Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-179923-2	PZ-200D FF	Water	11/20/19 13:05	11/20/19 16:30	

Client Sample Results

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D FF

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.212		0.0871	0.0892	1.00	0.0987	pCi/L	11/27/19 09:12	12/23/19 09:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*11/27/19 09:12*	*12/23/19 09:50*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.260	0.261	1.00	0.431	pCi/L	11/27/19 09:32	12/06/19 12:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*
Y Carrier	*81.9*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:52*	*1*

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425	U	0.274	0.276	5.00	0.431	pCi/L		01/06/20 12:17	1

Definitions/Glossary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Client Sample ID: PZ-200D FF

Date Collected: 11/20/19 13:05
Date Received: 11/20/19 16:30

Lab Sample ID: 400-179923-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			452212	11/27/19 09:12	MNH	TAL SL
Dissolved	Analysis	9315		1	455038	12/23/19 09:50	KLS	TAL SL
Dissolved	Prep	PrecSep_0			452214	11/27/19 09:32	MNH	TAL SL
Dissolved	Analysis	9320		1	453313	12/06/19 12:52	AJD	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	455805	01/06/20 12:17	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Rad

Prep Batch: 452212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	PrecSep-21	
MB 160-452212/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-452212/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-36489-B-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 452214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-179923-2	PZ-200D FF	Dissolved	Water	PrecSep_0	
MB 160-452214/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-452214/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-36489-B-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-452212/20-A
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452212

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01737	U	0.0472	0.0473	1.00	0.104	pCi/L	11/27/19 09:12	12/23/19 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/27/19 09:12*	*12/23/19 11:47*	*1*

Lab Sample ID: LCS 160-452212/1-A
Matrix: Water
Analysis Batch: 455038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452212

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.63		1.09	1.00	0.112	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.0*		*40 - 110*

Lab Sample ID: 160-36489-B-1-A DU
Matrix: Water
Analysis Batch: 454939

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452212

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.150			0.3859		0.133	1.00	0.121	pCi/L			1.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*65.1*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-452214/20-A
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 452214

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1447	U	0.267	0.268	1.00	0.454	pCi/L	11/27/19 09:32	12/06/19 12:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:56*	*1*
Y Carrier	*83.4*		*40 - 110*	*11/27/19 09:32*	*12/06/19 12:56*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-452214/1-A
Matrix: Water
Analysis Batch: 453313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 452214

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.33	9.918		1.14	1.00	0.407	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.0*		*40 - 110*
Y Carrier	*84.9*		*40 - 110*

Lab Sample ID: 160-36489-B-1-B DU
Matrix: Water
Analysis Batch: 453332

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 452214

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.32			1.131		0.437	1.00	0.593	pCi/L			0.23	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*65.1*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-88344-31349.1
Client Contact: Mr. Mike Markey	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Gulf Power Company				Job #:
Address: BIN 731 One Energy Place	Due Date Requested:			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32520				
Phone: 850-444-6573(Tel)	PO #: Purchase Order not required			
Email: richard.markey@nexteraenergy.com	WO #:			
Project Name: CCR Plant Crist	Project #: 40005424			
Site: GSA Delineation Sampling	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

400-179923 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC - Radium 226 + Radium 228	SM4500_Cl_E-Chloride, SM4500_SO4_E-Sulfate, 4500_F_C-Fluoride, 2540C - Total Dissolved Solids	Field Sampling Parameters-Field pH	6020-As,Ba,B,Be,Ca,Co,Pb,Li,Se,Tl, 7470A-Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
PZ-200D	11-20-19	1305	G	Water			X	X	X	X		
PZ-200D FF	11-20-19	1305	G	Water	X		X	X	X	X		
DUP-02	11-20-19	1305	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-20-19 1630	RPH	Kathy Raven	11-20-19 1630	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.3°C IR8

Ver: 01/16/2019

1/10/2020

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-4
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 1
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Gulf Power Company

Job Number: 400-179923-4
SDG Number: GSA Delineation Sampling

Login Number: 179923
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 11/26/19 12:30 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
North Carolina (WW/SW)	State Program	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-20
Rhode Island	State Program	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Accreditation/Certification Summary

Client: Gulf Power Company
Project/Site: CCR Plant Crist

Job ID: 400-179923-4
SDG: GSA Delineation Sampling

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-20
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-20
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

APPENDIX B

Statistical Analyses – October 2018 Semi-Annual Monitoring

FALL 2018

GROUNDWATER STATISTICAL ANALYSIS

FOR GULF POWER'S

PLANT CRIST

Prepared by:

Groundwater Stats Consulting LLC

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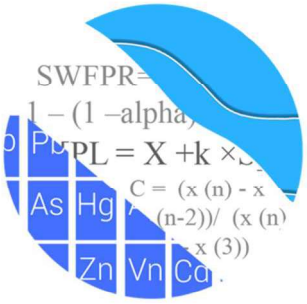
GROUNDWATER STATS CONSULTING



February 11, 2019

Geosyntec Consultants
Attn: Mr. Benjamin K. Amos, Ph.D., P.E.
1255 Roberts Boulevard, Suite 200
Kennesaw, GA 30144

Re: Plant Crist
Statistical Analysis – Fall 2018 Sample Event

Dear Mr. Dorman,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of the groundwater data for the Fall 2018 sample event at Gulf Power Company's Plant Crist. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at Plant Crist for the CCR program in 2016 at each of the groundwater monitoring wells. The monitoring well network, as provided by Geosyntec Consultants, consists of the following:

- **Upgradient wells:** MW-100, MW-101, MW-107, MW-108, MW-306, MW-307
- **Ash Landfill No. 1 (100 Series):** MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110
- **Gypsum Storage Area (200 Series):** MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206
- **Ash Landfill No. 2 (300 Series):** MW-300, MW-303, MW-304, MW-305, MW-308

Data were provided electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The statistical analysis was performed according to the groundwater data screening that was performed in October 2017 by GSC and approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III and IV parameters at the 100, 200 and 300 series wells are provided for these wells for the above constituents. Additionally, box plots are included for these constituents at all wells. The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Proposed background data at all wells were evaluated, and reports submitted, during the October 2017 screening for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided for interwell and intrawell prediction limits, based on the number of downgradient wells which is 5 for the 300 series wells and 7 for the 100 and 200 series wells, to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Background - Results of October 2017 Background Screening

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified,

flagged in the computer database with "o" and deselected prior to construction of statistical limits. The results of those findings were submitted with the October 2017 report. A summary of flagged values follows this letter. These values maybe also be seen on the time series graphs as disconnected points and on the data pages in a lighter font. No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visually identified, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses show a few statistically significant decreasing trends and one increasing trend. All trends noted were relatively low in magnitude when compared to average concentrations. Therefore, no adjustments were necessary.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Crist for the following Appendix III parameters: calcium, chloride, pH, and sulfate. No statistically significant variation was noted for boron, fluoride or TDS, making these constituents eligible for interwell analyses. All other constituents were further evaluated as described below for the appropriateness of intrawell testing to accommodate the groundwater quality. A summary table of the ANOVA results was included in the screening report.

Appendix III – Intrawell Method Eligibility Screening

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, several steps are required to reasonably demonstrate that downgradient water quality does not have existing impacts from the practices of the facility.

Exploratory data analysis was used as a general comparison of concentrations in downgradient wells for all Appendix III parameters recommended for intrawell analyses to concentrations reported in upgradient wells. Upper tolerance limits are used in conjunction with confidence intervals to determine whether the estimated averages in downgradient wells are higher than observed levels upgradient of the facility. The upper tolerance limits were constructed to represent the extreme upper range of potential background levels at the site.

Either parametric or nonparametric tolerance limits are calculated based on the data characteristics that are described below for prediction limits. Parametric tolerance limits (for normal or transformed-normally distributed data) were constructed with a target of 99% confidence and 95% coverage using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. For non-normal data, nonparametric tolerance limits are used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As more data are collected, the background population is better represented, and the confidence and coverage levels increase.

Confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting spatial variation, using the tolerance limits discussed above, to determine intrawell eligibility. Either parametric or nonparametric confidence intervals were constructed as appropriate. When the entire confidence interval is above the

background limit for a given parameter, interwell methods are initially recommended as the statistical method. Note that this screening identifies whether confidence intervals are above a background limit but does not identify the reason for this occurrence. Therefore, only the wells/parameters with confidence intervals which did not exceed background limits are eligible for intrawell prediction limits.

Confidence intervals for Appendix III parameters were found to be above the background standards in at least one well for each parameter at Ash Landfill No. 1. Therefore, interwell prediction limits are recommended initially for all Appendix III parameters at this unit. Confidence intervals were above background standards for all parameters except pH at the Gypsum Storage Area and Ash Landfill No. 2. Therefore, intrawell methods may be used for pH and interwell methods for all other Appendix III parameters at these two units. The results of the upper tolerance limits calculations and confidence interval comparisons were presented in the background screening report.

If further evaluation confirms natural variation in groundwater at these downgradient wells, intrawell methods will be considered for these parameters. In cases where downgradient average concentrations are higher than observed concentrations upgradient for a given constituent, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such an assessment is beyond the scope of services provided by Groundwater Stats Consulting. When there is not an obvious explanation for observed concentration differences in downgradient wells relative to reported concentrations in upgradient wells, interwell prediction limits will initially be selected for the statistical method until further evidence shows that concentrations are due to natural variation rather than a result of the facility.

Prediction Limits - Appendix III Parameters

All available upgradient well data through May 2017 were used to establish interwell prediction limits based on a 1-of-2 resample plan that will be used for future comparisons at the Ash Landfill No. 1. Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for boron, calcium, chloride, fluoride, pH, sulfate, and TDS. These same limits will be used at the Gypsum Storage Area and Ash Landfill No. 2, except for pH. Intrawell prediction limits combined with a 1-of-2 resample plan were constructed for pH at the Gypsum Storage Area and Landfill No. 2. Prediction limits combined with retesting meet the recommended guidelines with respect to the annual false positive rate and power requirements as described in the EPA Unified Guidance (2009). With limited background data, initially some of the nonparametric prediction limits will have a slightly

higher false positive rate associated with each test. However, as more data are collected and incorporated into background, the false positive rate associated with the nonparametric tests will decrease.

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the interwell case, newer data will be included in background when a minimum of 2 new samples are available.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of an additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of

the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. Exceedances were noted at each of the units, and the results may be found following this letter in the Prediction Limit Summary Tables.

Evaluation of Appendix IV Parameters

Either parametric or nonparametric tolerance limits, as appropriate, were used to calculate background limits from pooled upgradient well data for Appendix IV parameters, with a target of 95% confidence and 95% coverage for parametric limits, to determine the Alternate Contaminant Level (ACL). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These limits were compared to the Maximum Contaminant Levels (MCLs) and CCR rule-specified levels to determine the highest limit for use as the Groundwater Protection Standard (GWPS) in the Confidence Interval comparisons.

Confidence intervals were then constructed on downgradient wells for each of the Appendix IV parameters and compared to the highest limit of either the MCL, rule-specified level, or ACL discussed above. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Tables of the upper tolerance limits, confidence intervals along with graphical comparisons against standards, and significant results (exceedances) follow this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Crist. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,



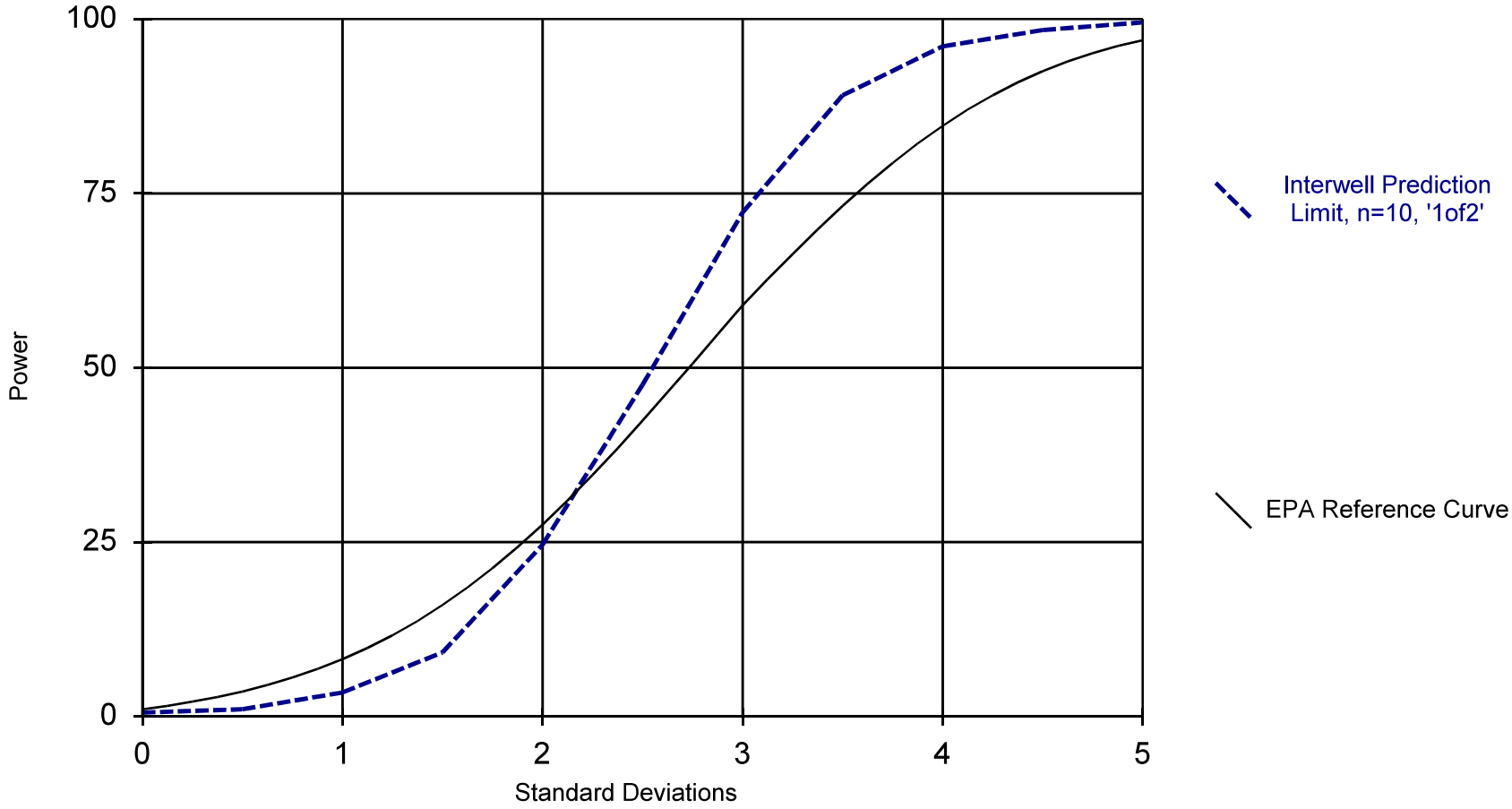
Kristina L. Rayner
Groundwater Statistician

Outlier Summary

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/8/2019, 11:44 AM

	MW-200 Cadmium (mg/L)	MW-201 Cadmium (mg/L)	MW-206 Chloride (mg/L)	MW-304 Cobalt (mg/L)	MW-307 Lithium (mg/L)	MW-100 Sulfate (mg/L)	MW-202 Sulfate (mg/L)	MW-205 Total Dissolved Solids (mg/L)	MW-206 Total Dissolved Solids (mg/L)
3/2/2016	0.022 (o)	<0.0025 (o)							32000 (o)
3/3/2016				0.19 (o)					
5/2/2016						15 (o)			
5/3/2016							360 (o)	160 (o)	
5/4/2016				0.16 (o)					
7/5/2016			360 (o)						
7/6/2016				0.15 (o)					
11/7/2016					0.0097 (o)				

Power Curve

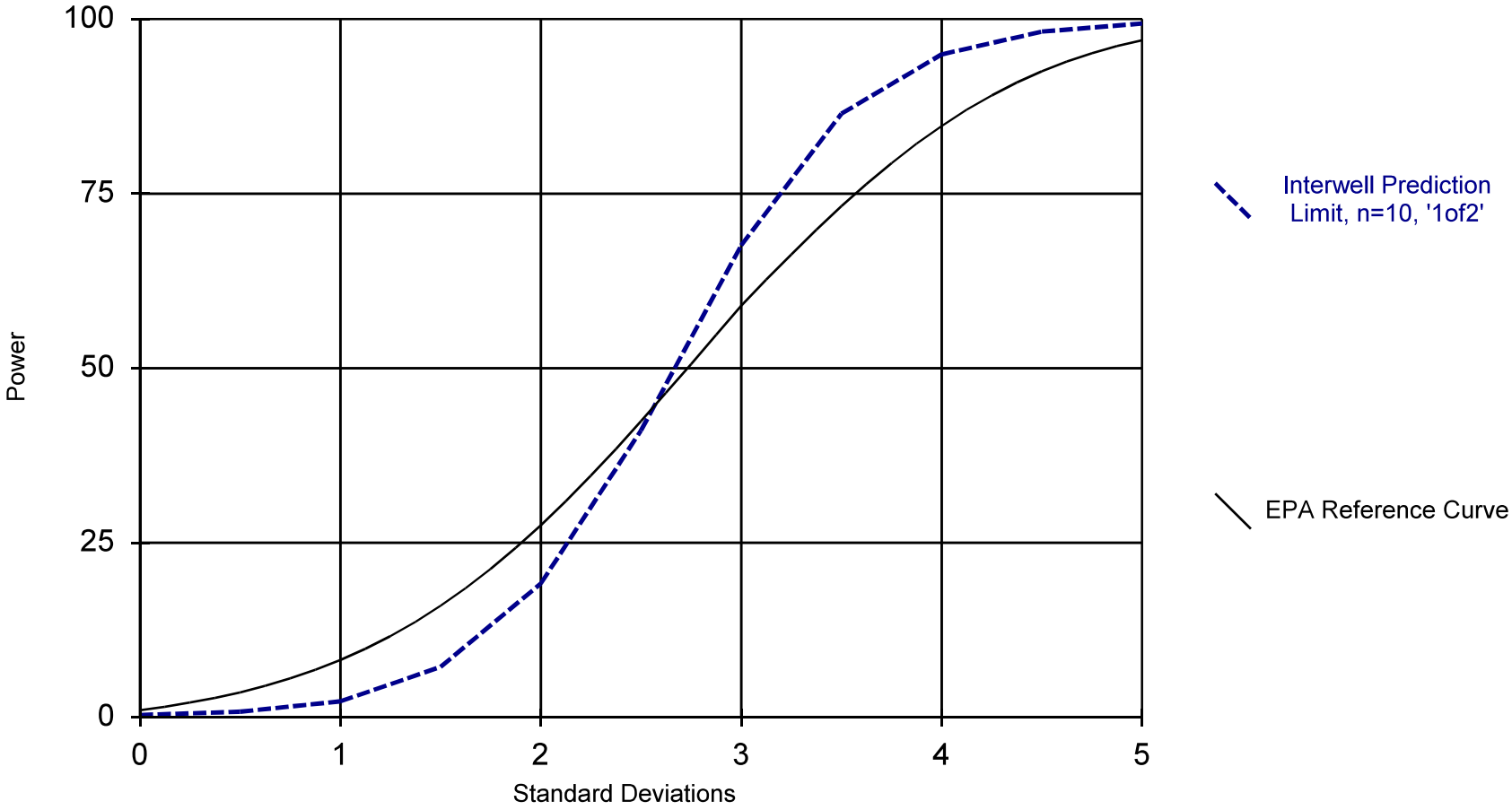


Kappa = 2.432, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/8/2019 11:48 AM

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Power Curve

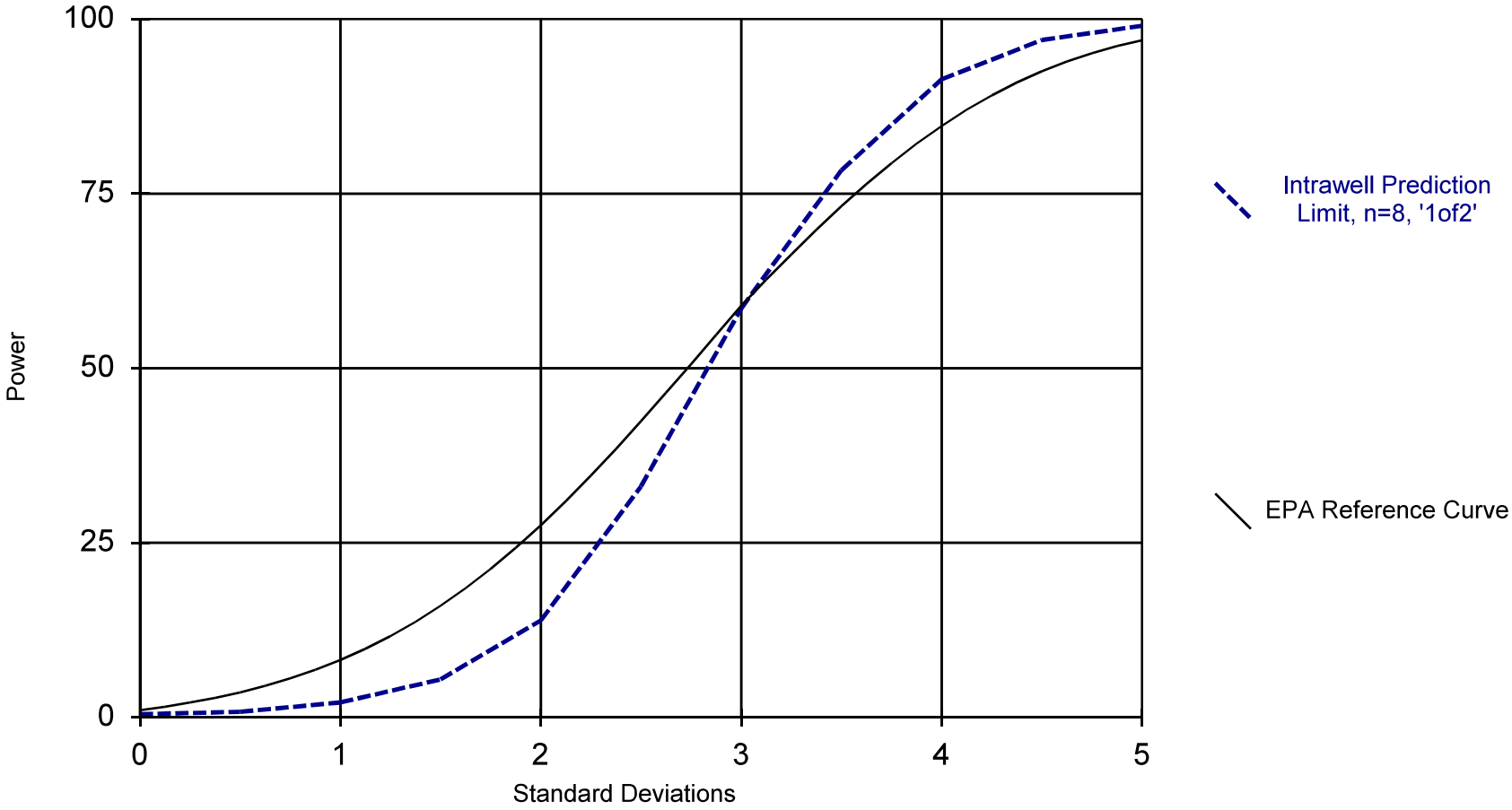


Kappa = 2.561, based on 7 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/8/2019 11:48 AM

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Power Curve

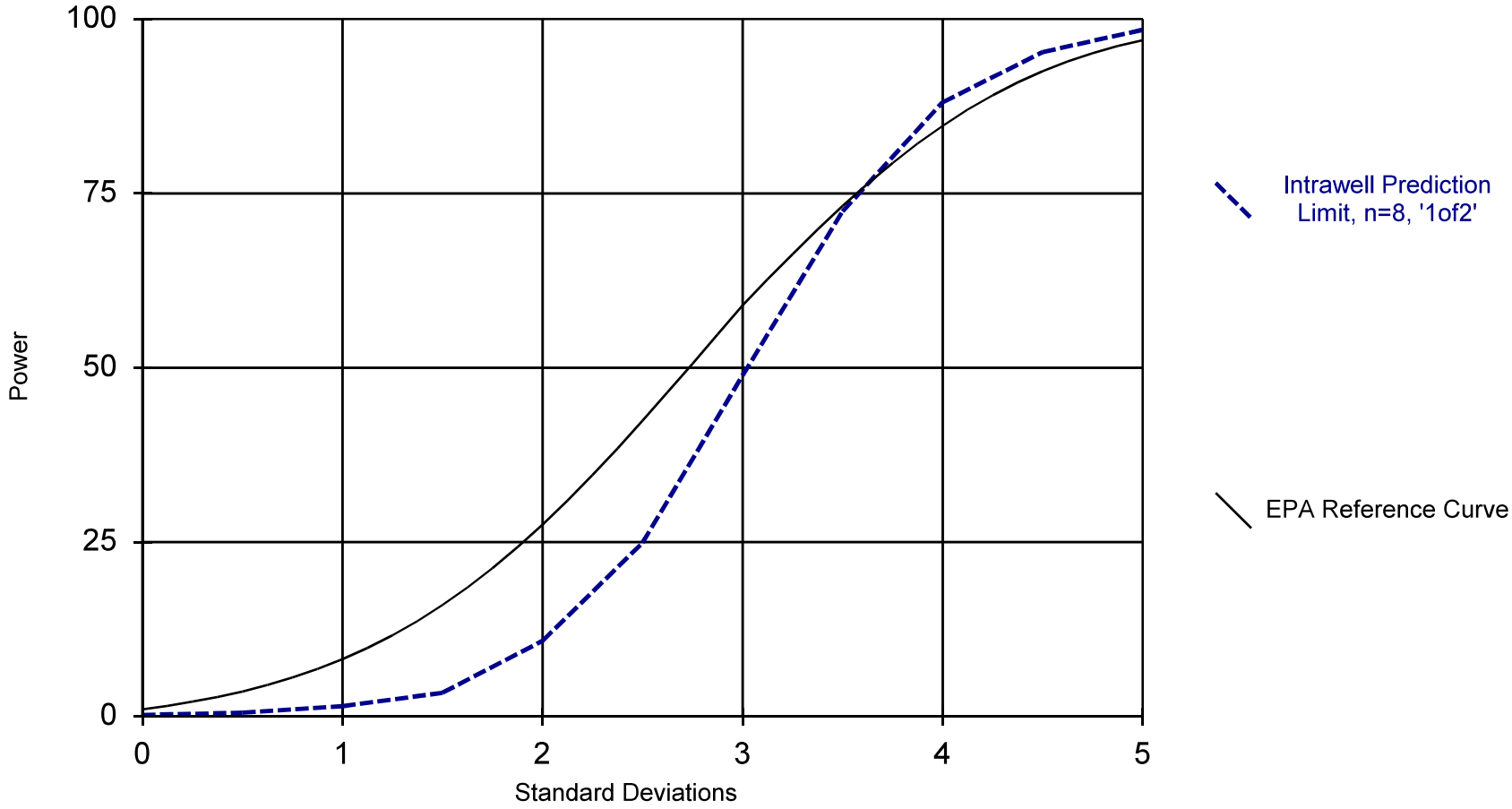


Kappa = 2.74, based on 5 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/8/2019 11:49 AM

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Power Curve



Kappa = 2.923, based on 7 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 2/8/2019 11:49 AM

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Interwell Prediction Limit Summary - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/5/2019, 12:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-102	0.081	n/a	10/19/2018	0.34	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.081	n/a	10/18/2018	0.25	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.081	n/a	10/18/2018	9.6	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.081	n/a	10/18/2018	0.43	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.081	n/a	10/18/2018	0.15	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.081	n/a	10/18/2018	4.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-103	1.533	n/a	10/18/2018	3.1	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.533	n/a	10/18/2018	52	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.533	n/a	10/18/2018	63	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.533	n/a	10/18/2018	2.8	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.533	n/a	10/18/2018	38	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.868	n/a	10/18/2018	12	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.868	n/a	10/18/2018	100	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.868	n/a	10/18/2018	32	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.868	n/a	10/18/2018	7.5	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.868	n/a	10/18/2018	160	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-104	7.11	4.5	10/18/2018	4.12	Yes	72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Fluoride (mg/L)	MW-104	0.12	n/a	10/18/2018	0.26	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	10/18/2018	31	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	10/18/2018	460	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	10/18/2018	6.6	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	10/18/2018	8.1	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	10/18/2018	280	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-102	44	n/a	10/19/2018	54	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-103	44	n/a	10/18/2018	64	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-104	44	n/a	10/18/2018	860	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-105	44	n/a	10/18/2018	250	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-106	44	n/a	10/18/2018	68	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-110	44	n/a	10/18/2018	750	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...

Interwell Prediction Limit Summary - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/11/2019, 12:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-200	0.081	n/a	11/13/2018	9.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.081	n/a	11/14/2018	2.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-202	0.081	n/a	11/14/2018	0.21	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-203	0.081	n/a	11/13/2018	1.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-204	0.081	n/a	10/19/2018	5	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-205	0.081	n/a	10/19/2018	2	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.081	n/a	10/17/2018	25	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.533	n/a	11/13/2018	220	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.533	n/a	11/14/2018	38	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-202	1.533	n/a	11/14/2018	83	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-203	1.533	n/a	11/13/2018	30	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-204	1.533	n/a	10/19/2018	68	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-205	1.533	n/a	10/19/2018	33	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.533	n/a	10/17/2018	530	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.868	n/a	11/13/2018	450	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.868	n/a	11/14/2018	41	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-202	6.868	n/a	11/14/2018	18	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-203	6.868	n/a	11/13/2018	17	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-204	6.868	n/a	10/19/2018	77	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-205	6.868	n/a	10/19/2018	58	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.868	n/a	10/17/2018	1200	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-201	0.12	n/a	11/14/2018	0.67	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-204	0.12	n/a	10/19/2018	0.28	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	11/13/2018	130	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	11/14/2018	110	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-202	5	n/a	11/14/2018	21	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-203	5	n/a	11/13/2018	100	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-204	5	n/a	10/19/2018	320	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-205	5	n/a	10/19/2018	120	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	10/17/2018	270	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	44	n/a	11/13/2018	1400	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-201	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-202	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-203	44	n/a	11/13/2018	150	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-204	44	n/a	10/19/2018	700	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-205	44	n/a	10/19/2018	310	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-206	44	n/a	10/17/2018	3800	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...

Intrawell Prediction Limit Summary - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Field pH (SU)	**MW-202**	**5.435**	**4.005**	**11/14/2018**	**6.79**	**Yes**	**8**	**4.72**	**0.2445**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**
Field pH (SU)	**MW-205**	**6.232**	**4.905**	**10/19/2018**	**4.81**	**Yes**	**8**	**5.569**	**0.2269**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**

Interwell Prediction Limit Summary - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-303	0.081	n/a	10/17/2018	7.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-304	0.081	n/a	10/17/2018	1.6	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-308	0.081	n/a	10/17/2018	2.8	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-303	1.484	n/a	10/17/2018	93	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-304	1.484	n/a	10/17/2018	130	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-308	1.484	n/a	10/17/2018	60	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-300	6.799	n/a	10/18/2018	8.1	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-303	6.799	n/a	10/17/2018	110	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-304	6.799	n/a	10/17/2018	45	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-305	6.799	n/a	10/17/2018	6.8	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-308	6.799	n/a	10/17/2018	70	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	MW-303	0.12	n/a	10/17/2018	0.29	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-308	0.12	n/a	10/17/2018	0.14	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-303	5	n/a	10/17/2018	250	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-304	5	n/a	10/17/2018	320	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-308	5	n/a	10/17/2018	140	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-303	44	n/a	10/17/2018	700	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-304	44	n/a	10/17/2018	770	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-305	44	n/a	10/17/2018	68	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-308	44	n/a	10/17/2018	390	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...

Intrawell Prediction Limit Summary - 300 Series All Results (No Significant Results)

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:35 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Field pH (SU)	MW-100	5.515	4.24	10/16/2018	4.93	No	8	4.878	0.2326	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-101	5.779	4.151	10/18/2018	4.97	No	8	4.965	0.297	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-107	5.726	4.169	10/16/2018	4.98	No	8	4.948	0.2841	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	10/16/2018	4.81	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) ...
Field pH (SU)	MW-306	5.716	4.409	10/17/2018	4.99	No	8	5.063	0.2384	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-307	6.977	4.934	10/17/2018	5.54	No	8	5.956	0.3728	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-300	5.47	4.23	10/18/2018	4.71	No	8	4.85	0.2264	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-303	7.387	5.656	10/17/2018	6.58	No	8	6.521	0.3159	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-304	6.101	4.415	10/17/2018	5.94	No	8	5.258	0.3078	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-305	5.654	4.273	10/17/2018	4.87	No	8	4.964	0.252	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-308	6.834	5.582	10/17/2018	6.18	No	8	6.208	0.2284	0	None	No	0.000752	Param Intra 1 of 2

GWPS - Upper Tolerance Limits

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 2:21 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0025	66	n/a	n/a	100	n/a	n/a	0.03387	NP Inter(NDs)
Arsenic (mg/L)	0.0013	66	n/a	n/a	87.88	n/a	n/a	0.03387	NP Inter(NDs)
Barium (mg/L)	0.01863	66	0.1122	0.01217	0	None	sqrt(x)	0.05	Inter
Beryllium (mg/L)	0.0025	66	n/a	n/a	100	n/a	n/a	0.03387	NP Inter(NDs)
Cadmium (mg/L)	0.0025	66	n/a	n/a	100	n/a	n/a	0.03387	NP Inter(NDs)
Chromium (mg/L)	0.017	66	n/a	n/a	86.36	n/a	n/a	0.03387	NP Inter(NDs)
Cobalt (mg/L)	0.0032	66	n/a	n/a	31.82	n/a	n/a	0.03387	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	2.54	66	0.03568	0.4489	4.545	None	ln(x)	0.05	Inter
Fluoride (mg/L)	0.12	72	n/a	n/a	97.22	n/a	n/a	0.02489	NP Inter(NDs)
Lead (mg/L)	0.0013	66	n/a	n/a	100	n/a	n/a	0.03387	NP Inter(NDs)
Lithium (mg/L)	0.005	65	n/a	n/a	84.62	n/a	n/a	0.03565	NP Inter(NDs)
Mercury (mg/L)	0.0002	66	n/a	n/a	95.45	n/a	n/a	0.03387	NP Inter(NDs)
Molybdenum (mg/L)	0.015	66	n/a	n/a	95.45	n/a	n/a	0.03387	NP Inter(NDs)
Selenium (mg/L)	0.0025	66	n/a	n/a	74.24	n/a	n/a	0.03387	NP Inter(normality)
Thallium (mg/L)	0.0005	66	n/a	n/a	100	n/a	n/a	0.03387	NP Inter(NDs)

Confidence Interval Summary Table - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**MW-104**	**0.02336**	**0.01427**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-103**	**7.526**	**5.511**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-104**	**19.15**	**11.78**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-110**	**8.01**	**5.999**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Mercury (mg/L)	**MW-110**	**0.006789**	**0.0034**	**0.002**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 3:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**MW-204**	**0.02003**	**0.01579**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-200**	**20.76**	**10.39**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-201**	**23.1**	**8.969**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-203**	**6.89**	**5.561**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-204**	**16.2**	**12.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-206**	**35.47**	**19.71**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	**MW-303**	**2.2**	**0.99**	**0.1**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**

Prediction Limits - 100, 200 & 300 Series

100 Series

Interwell Prediction Limit Summary - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/5/2019, 12:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-102	0.081	n/a	10/19/2018	0.34	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.081	n/a	10/18/2018	0.25	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.081	n/a	10/18/2018	9.6	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.081	n/a	10/18/2018	0.43	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.081	n/a	10/18/2018	0.15	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.081	n/a	10/18/2018	4.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-103	1.533	n/a	10/18/2018	3.1	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.533	n/a	10/18/2018	52	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.533	n/a	10/18/2018	63	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.533	n/a	10/18/2018	2.8	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.533	n/a	10/18/2018	38	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.868	n/a	10/18/2018	12	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.868	n/a	10/18/2018	100	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.868	n/a	10/18/2018	32	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.868	n/a	10/18/2018	7.5	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.868	n/a	10/18/2018	160	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-104	7.11	4.5	10/18/2018	4.12	Yes	72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Fluoride (mg/L)	MW-104	0.12	n/a	10/18/2018	0.26	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	10/18/2018	31	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	10/18/2018	460	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	10/18/2018	6.6	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	10/18/2018	8.1	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	10/18/2018	280	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-102	44	n/a	10/19/2018	54	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-103	44	n/a	10/18/2018	64	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-104	44	n/a	10/18/2018	860	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-105	44	n/a	10/18/2018	250	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-106	44	n/a	10/18/2018	68	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-110	44	n/a	10/18/2018	750	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...

Interwell Prediction Limit Summary - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/5/2019, 12:56 PM

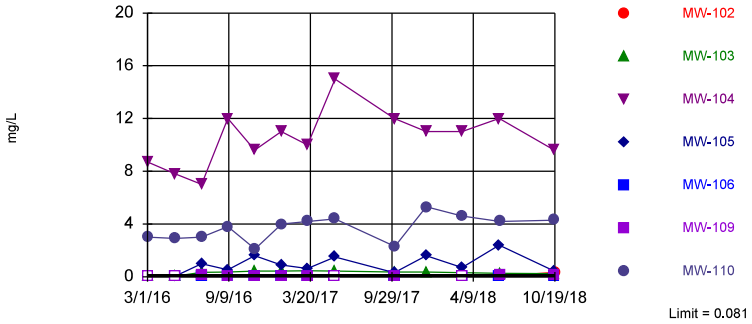
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	**MW-102**	**0.081**	**n/a**	**10/19/2018**	**0.34**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-103**	**0.081**	**n/a**	**10/18/2018**	**0.25**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-104**	**0.081**	**n/a**	**10/18/2018**	**9.6**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-105**	**0.081**	**n/a**	**10/18/2018**	**0.43**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-106	0.081	n/a	10/18/2018	0.067	No 72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-109**	**0.081**	**n/a**	**10/18/2018**	**0.15**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-110**	**0.081**	**n/a**	**10/18/2018**	**4.3**	**Yes 72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	MW-102	1.533	n/a	10/19/2018	0.37	No 72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	**MW-103**	**1.533**	**n/a**	**10/18/2018**	**3.1**	**Yes 72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-104**	**1.533**	**n/a**	**10/18/2018**	**52**	**Yes 72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-105**	**1.533**	**n/a**	**10/18/2018**	**63**	**Yes 72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	MW-106	1.533	n/a	10/18/2018	0.47	No 72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	**MW-109**	**1.533**	**n/a**	**10/18/2018**	**2.8**	**Yes 72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-110**	**1.533**	**n/a**	**10/18/2018**	**38**	**Yes 72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-103**	**6.868**	**n/a**	**10/18/2018**	**12**	**Yes 72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-104**	**6.868**	**n/a**	**10/18/2018**	**100**	**Yes 72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-105**	**6.868**	**n/a**	**10/18/2018**	**32**	**Yes 72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	MW-106	6.868	n/a	10/18/2018	5	No 72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	**MW-109**	**6.868**	**n/a**	**10/18/2018**	**7.5**	**Yes 72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-110**	**6.868**	**n/a**	**10/18/2018**	**160**	**Yes 72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Field pH (SU)	MW-102	7.11	4.5	10/19/2018	5.15	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Field pH (SU)	MW-103	7.11	4.5	10/18/2018	4.93	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Field pH (SU)	**MW-104**	**7.11**	**4.5**	**10/18/2018**	**4.12**	**Yes 72**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0007379**	**NP Inter (normality) ...**
Field pH (SU)	MW-105	7.11	4.5	10/18/2018	6.19	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Field pH (SU)	MW-106	7.11	4.5	10/18/2018	5.07	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Field pH (SU)	MW-109	7.11	4.5	10/18/2018	4.76	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Field pH (SU)	MW-110	7.11	4.5	10/18/2018	4.73	No 72	n/a	n/a	0	n/a	n/a	0.0007379	NP Inter (normality) ...
Fluoride (mg/L)	MW-102	0.12	n/a	10/19/2018	0.1ND	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-103	0.12	n/a	10/18/2018	0.1ND	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-104**	**0.12**	**n/a**	**10/18/2018**	**0.26**	**Yes 72**	**n/a**	**n/a**	**97.22**	**n/a**	**n/a**	**0.0003689**	**NP Inter (NDs) 1 of 2**
Fluoride (mg/L)	MW-105	0.12	n/a	10/18/2018	0.04	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-109	0.12	n/a	10/18/2018	0.1ND	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Chloride (mg/L)	MW-102	6.868	n/a	10/19/2018	6.7	No 72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-110	0.12	n/a	10/18/2018	0.04	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-102	5	n/a	10/19/2018	3.4	No 71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-103**	**5**	**n/a**	**10/18/2018**	**31**	**Yes 71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003778**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-104**	**5**	**n/a**	**10/18/2018**	**460**	**Yes 71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003778**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-105**	**5**	**n/a**	**10/18/2018**	**6.6**	**Yes 71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003778**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-106	5	n/a	10/18/2018	5ND	No 71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-109**	**5**	**n/a**	**10/18/2018**	**8.1**	**Yes 71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003778**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-110**	**5**	**n/a**	**10/18/2018**	**280**	**Yes 71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003778**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-102**	**44**	**n/a**	**10/19/2018**	**54**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-103**	**44**	**n/a**	**10/18/2018**	**64**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-104**	**44**	**n/a**	**10/18/2018**	**860**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-105**	**44**	**n/a**	**10/18/2018**	**250**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-106**	**44**	**n/a**	**10/18/2018**	**68**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	MW-109	44	n/a	10/18/2018	34	No 72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	**MW-110**	**44**	**n/a**	**10/18/2018**	**750**	**Yes 72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003689**	**NP Inter (normality) ...**
Fluoride (mg/L)	MW-106	0.12	n/a	10/18/2018	0.1ND	No 72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-102, MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 95.83% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

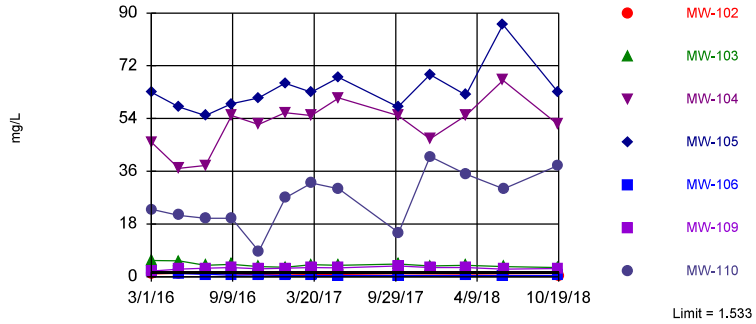
Constituent: Boron Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-0.3534, Std. Dev.=0.4098, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9696, critical = 0.954. Kappa = 1.905 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

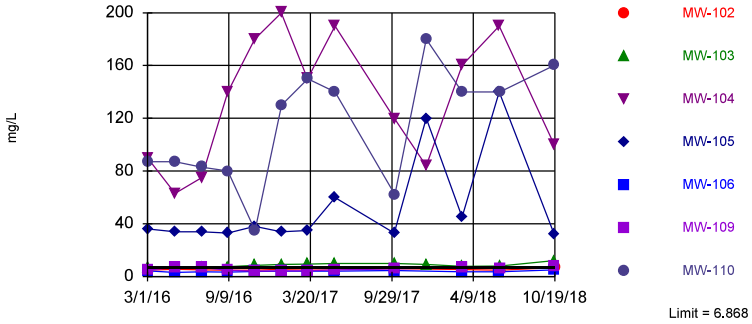
Constituent: Calcium Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.201, Std. Dev.=0.8748, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.963, critical = 0.954. Kappa = 1.905 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

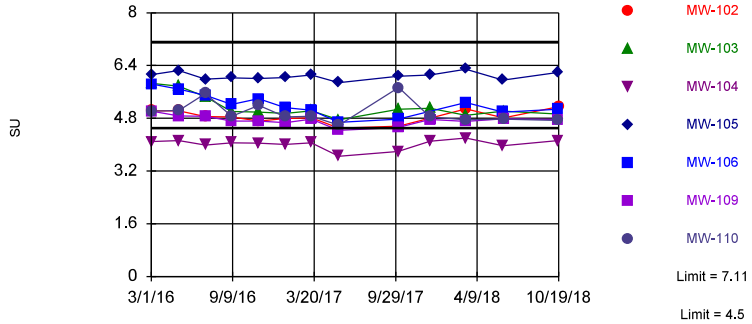
Constituent: Chloride Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits: MW-104

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 72 background values. Annual per-constituent alpha = 0.01031. Individual comparison alpha = 0.0007379 (1 of 2). Comparing 7 points to limit.

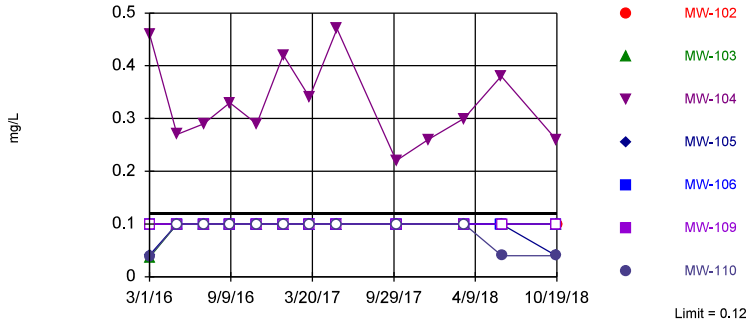
Constituent: Field pH Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-104

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 97.22% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

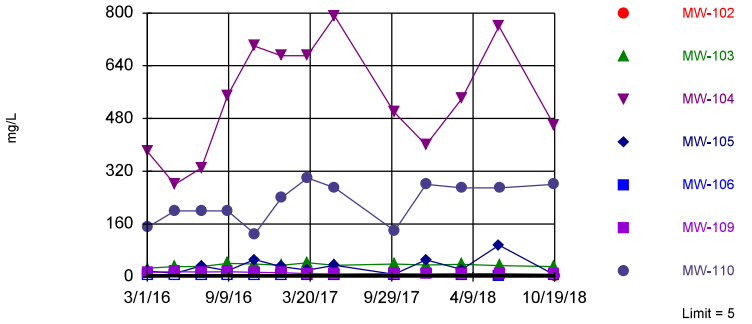
Constituent: Fluoride Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 71 background values. 74.65% NDs. Annual per-constituent alpha = 0.005276. Individual comparison alpha = 0.0003778 (1 of 2). Comparing 7 points to limit.

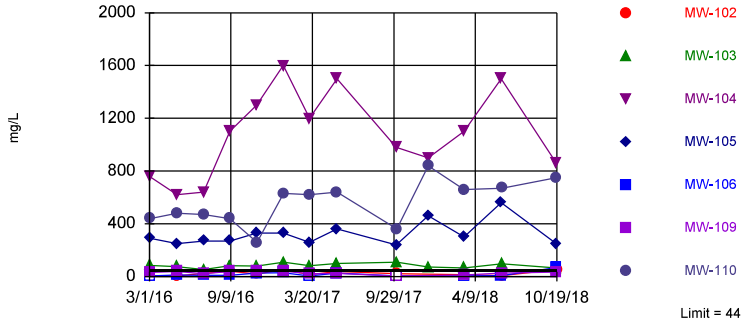
Constituent: Sulfate Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-102, MW-103, MW-104, MW-105, MW-106, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. 33.33% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/5/2019 10:47 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-104	MW-106	MW-103	MW-306 (bg)	MW-102
2/29/2016	<0.05	<0.05	<0.05	<0.05					
3/1/2016					8.7	<0.05	<0.05 (*)	<0.05	<0.05
3/2/2016									
5/2/2016	<0.05	<0.05	<0.05						
5/3/2016								<0.05	
5/4/2016				<0.05		<0.05 (*)			
5/5/2016					7.8		<0.05 (*)		<0.05
7/5/2016	<0.05	<0.05	<0.05					<0.05	
7/7/2016					7		0.33		<0.05
7/8/2016				<0.05		<0.05			
9/6/2016	<0.05	<0.05	<0.05	<0.05				<0.05	<0.05
9/7/2016					12	0.022 (J)	0.37		
11/7/2016	<0.05	<0.05	<0.05					<0.05	
11/9/2016					9.6	<0.05			
11/10/2016				<0.05			0.43		<0.05
1/9/2017	<0.05	<0.05	<0.05					<0.05	
1/11/2017				<0.05	11	<0.05			
1/12/2017							0.44		<0.05
3/13/2017	<0.05	<0.05	0.022 (J)					<0.05	
3/14/2017				<0.05	10	0.071			
3/15/2017							0.46		<0.05
5/15/2017	<0.05	<0.05	<0.05					<0.05	
5/18/2017				<0.05	15	<0.05 (*)	0.44		<0.05
10/2/2017	<0.05	<0.05	0.023 (J)					<0.05	
10/5/2017				<0.05	12	<0.05			
10/6/2017							0.37		<0.05
12/19/2017					11 (R)		0.35 (R)		
3/12/2018	<0.05	<0.05	<0.05					<0.05	
3/14/2018				<0.05	11	<0.05	0.32		<0.05
6/5/2018	<0.05	<0.05	<0.05						
6/6/2018								<0.05	
6/10/2018				<0.05	12	0.066			
6/11/2018							0.26		<0.05
10/16/2018	<0.05	<0.05	<0.05						
10/17/2018								<0.05	
10/18/2018				0.081	9.6	0.067	0.25		
10/19/2018									0.34

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-109	MW-110
2/29/2016				
3/1/2016	<0.05	<0.05 (*)		
3/2/2016			<0.05 (*)	3
5/2/2016	<0.05			
5/3/2016				
5/4/2016				
5/5/2016		<0.05 (*)	<0.05 (*)	2.9
7/5/2016	<0.05			
7/7/2016		1	0.1	3
7/8/2016				
9/6/2016	<0.05			
9/7/2016		0.53	0.073	3.8
11/7/2016	<0.05			
11/9/2016		1.6		
11/10/2016			0.073	2.1
1/9/2017	<0.05			
1/11/2017		0.9		
1/12/2017			0.059	4
3/13/2017	<0.05			
3/14/2017		0.63	0.044 (J)	
3/15/2017				4.2
5/15/2017	<0.05			
5/18/2017		1.5	<0.05 (*)	4.4
10/2/2017	<0.05			
10/5/2017		0.32	0.047 (J)	
10/6/2017				2.3
12/19/2017		1.6 (R)		5.3 (R)
3/12/2018	<0.05			
3/14/2018		0.7	<0.05	4.6
6/5/2018				
6/6/2018	<0.05			
6/10/2018		2.4		
6/11/2018			0.11	4.2
10/16/2018				
10/17/2018	<0.05			
10/18/2018		0.43	0.15	4.3
10/19/2018				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	1	0.67	1.4	1 (J)					
3/1/2016					63	46	0.6	5.6	1.5
3/2/2016									
5/2/2016	0.78	0.58	1.1						0.83
5/3/2016							0.55		
5/4/2016				0.62					
5/5/2016					58	37		5.4	
7/5/2016	0.65	0.43	0.94				0.53		1.6
7/7/2016					55	38		3.9	
7/8/2016				0.4					
9/6/2016	0.7	0.48	1	0.45			0.5		1.6
9/7/2016					59	55		4.2	
11/7/2016	0.8	0.56	1.2				0.68		1.5
11/9/2016					61	52			
11/10/2016				0.44				3.5	
1/9/2017	0.74	0.43	1.2				0.56		0.98
1/11/2017				0.42	66	56			
1/12/2017								3.3	
3/13/2017	0.78	0.48	1.3				0.62		0.75
3/14/2017				0.42	63	55			
3/15/2017								4.1	
5/15/2017	0.76	0.37	1				0.58		0.83
5/18/2017				0.38	68	61		3.9	
10/2/2017	0.78	0.47	1.2				0.62		0.83
10/5/2017				0.39	58	55			
10/6/2017								4.3	
12/19/2017					69 (R)	47 (R)		3.7 (R)	
3/12/2018	0.88	0.49	1.4				0.59		0.71
3/14/2018				0.49	62	55		3.9	
6/5/2018	0.9	0.49	1.2						
6/6/2018							0.59		0.68
6/10/2018				0.39	86	67			
6/11/2018								3.5	
10/16/2018	0.86	0.42	1.4						
10/17/2018							0.54		0.66
10/18/2018				0.41	63	52		3.1	
10/19/2018									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-109	MW-110
2/29/2016				
3/1/2016	0.99 (J)	1.8		
3/2/2016			2	23
5/2/2016				
5/3/2016				
5/4/2016		1.1		
5/5/2016	1.2		2.6	21
7/5/2016				
7/7/2016	1.1		2.9	20
7/8/2016		0.82		
9/6/2016	1			
9/7/2016		0.57	3.1	20
11/7/2016				
11/9/2016		0.62		
11/10/2016	0.73		2.7	8.7
1/9/2017				
1/11/2017		0.44		
1/12/2017	0.63		2.9	27
3/13/2017				
3/14/2017		0.46	3.1	
3/15/2017	0.72			32
5/15/2017				
5/18/2017	0.71	0.41	3	30
10/2/2017				
10/5/2017		0.39	3.7	
10/6/2017	0.56			15
12/19/2017			3.1 (R)	41 (R)
3/12/2018				
3/14/2018	0.63	0.47	3.1	35
6/5/2018				
6/6/2018				
6/10/2018		0.39		
6/11/2018	0.55		2.6	30
10/16/2018				
10/17/2018				
10/18/2018		0.47	2.8	38
10/19/2018	0.37			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-104	MW-106	MW-103	MW-306 (bg)	MW-102
2/29/2016	5.3	8.1	7.4	5.4					
3/1/2016					90	4.4	6.6	5.6	4.8
3/2/2016									
5/2/2016	4.4	6	6.3						
5/3/2016								5.1	
5/4/2016				4.5		3			
5/5/2016					63		6.5		5.6
7/5/2016	4.2	5.2	4.8					4.7	
7/7/2016					75		7.3		5
7/8/2016				4.9		3.5			
9/6/2016	4.3	5.5	6	4.3				4.4	4.8
9/7/2016					140	3.3	7.4		
11/7/2016	4.2	5.4	5.7					4.6	
11/9/2016					180	3.9			
11/10/2016				4.5			8.4		4.7
1/9/2017	5.3	6.1	6.8					5.3	
1/11/2017				5.3	200	4.1			
1/12/2017							9.2		5.6
3/13/2017	5.2	5.5	6.8					5.6	
3/14/2017				5.5	150	4			
3/15/2017							9.5		5.9
5/15/2017	4.8	4.7	6.1					5.2	
5/18/2017				5	190	4	9.9		5.7
10/2/2017	5.5	6.1	6					5.5	
10/5/2017				5.6	120	4.5			
10/6/2017							10		6
12/19/2017					84 (R)		9.3 (R)		
3/12/2018	5.3	6.1	5.9					5.6	
3/14/2018				5.2	160	3.7	7.7		5.2
6/5/2018	5.3	5.5	6.5						
6/6/2018								5.6	
6/10/2018				5.2	190	3.6			
6/11/2018							8		4.9
10/16/2018	5.5	5.1	5.9						
10/17/2018								5.5	
10/18/2018				5.2	100	5	12		
10/19/2018									6.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-109	MW-110
2/29/2016				
3/1/2016	4	36		
3/2/2016			5	87
5/2/2016	3.6			
5/3/2016				
5/4/2016				
5/5/2016		34	6.8	87
7/5/2016	3.6			
7/7/2016		34	6.7	83
7/8/2016				
9/6/2016	4			
9/7/2016		33	4.8	80
11/7/2016	4.4			
11/9/2016		38		
11/10/2016			4.2	35
1/9/2017	4.4			
1/11/2017		34		
1/12/2017			4.4	130
3/13/2017	4.1			
3/14/2017		35	4.4	
3/15/2017				150
5/15/2017	3.7			
5/18/2017		60	5	140
10/2/2017	4.8			
10/5/2017		33	5.8	
10/6/2017				62
12/19/2017		120 (R)		180 (R)
3/12/2018	4			
3/14/2018		45	6.9	140
6/5/2018				
6/6/2018	4.1			
6/10/2018		140		
6/11/2018			6	140
10/16/2018				
10/17/2018	3.7			
10/18/2018		32	7.5	160
10/19/2018				

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	5.11	5.11	4.9	5.26					
3/1/2016					6.12	4.09	5.08	5.86	6.37
3/2/2016									
5/2/2016	4.76	4.77	4.69						5.605 (D)
5/3/2016							5.14		
5/4/2016				5.1					
5/5/2016					6.25	4.12		5.77	
7/5/2016	5.12	5.48	7.11				5.38		6.29
7/7/2016					5.99	3.99		5.45	
7/8/2016				4.96					
9/6/2016	5.11	5.12	5.19	5.43			5.37		6.42
9/7/2016					6.03	4.06		5.01	
11/7/2016	4.76	4.73	4.64				4.92		5.75
11/9/2016					6.01	4.05			
11/10/2016				4.89				4.99	
1/9/2017	4.99	5	4.94				5.05		5.98
1/11/2017				4.87	6.04	4.01			
1/12/2017								4.95	
3/13/2017	4.57	4.74	4.63				4.87		5.81
3/14/2017				4.71	6.11	4.06			
3/15/2017								5.03	
5/15/2017	4.6	4.63	4.52				4.69		5.42
5/18/2017				4.5	5.88	3.65		4.75	
10/2/2017	4.64	4.63	4.54				4.88		5.63
10/5/2017				4.63	6.07	3.79			
10/6/2017								5.07	
12/19/2017					6.11 (R)	4.1 (R)		5.1 (R)	
3/12/2018	4.85	4.81	4.81				5.07		5.6
3/14/2018				5.14	6.29	4.2		4.89	
6/5/2018	4.92	5.04	4.9						
6/6/2018							5.09		5.58
6/10/2018				5.12	5.96	3.97			
6/11/2018								5.02	
10/16/2018	4.93	4.98	4.81						
10/17/2018							4.99		5.54
10/18/2018				4.97	6.19	4.12		4.93	
10/19/2018									

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-109	MW-110
2/29/2016				
3/1/2016	5.03	5.84		
3/2/2016			5.015 (D)	5.015 (D)
5/2/2016				
5/3/2016				
5/4/2016		5.69		
5/5/2016	5.03		4.87	5.04
7/5/2016				
7/7/2016	4.85		4.86	5.55
7/8/2016		5.49		
9/6/2016	4.84			
9/7/2016		5.22	4.72	4.86
11/7/2016				
11/9/2016		5.39		
11/10/2016	4.72		4.72	5.19
1/9/2017				
1/11/2017		5.12		
1/12/2017	4.79		4.67	4.84
3/13/2017				
3/14/2017		5.05	4.77	
3/15/2017	4.81			4.86
5/15/2017				
5/18/2017	4.5	4.68	4.43	4.59
10/2/2017				
10/5/2017		4.77	4.52	
10/6/2017	4.56			5.73
12/19/2017			4.76 (R)	4.84 (R)
3/12/2018				
3/14/2018	5.08	5.28	4.71	4.75
6/5/2018				
6/6/2018				
6/10/2018		4.99		
6/11/2018	4.81		4.78	4.77
10/16/2018				
10/17/2018				
10/18/2018		5.07	4.76	4.73
10/19/2018	5.15			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	<0.1	<0.1	<0.1	<0.1					
3/1/2016					0.041 (J)	0.46	<0.1	0.037 (J)	0.033 (J)
3/2/2016									
5/2/2016	<0.1	<0.1	<0.1						<0.1
5/3/2016							<0.1		
5/4/2016				<0.1					
5/5/2016					<0.1	0.27		<0.1	
7/5/2016	<0.1	<0.1	<0.1				<0.1		<0.1
7/7/2016					<0.1	0.29		<0.1	
7/8/2016				<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1			<0.1		<0.1
9/7/2016					<0.1	0.33		<0.1	
11/7/2016	<0.1	<0.1	<0.1				<0.1		<0.1
11/9/2016					<0.1	0.29			
11/10/2016				<0.1				<0.1	
1/9/2017	<0.1	<0.1	<0.1				<0.1		<0.1
1/11/2017				<0.1	<0.1	0.42			
1/12/2017								<0.1	
3/13/2017	<0.1	<0.1	<0.1				<0.1		<0.1
3/14/2017				<0.1	<0.1	0.34			
3/15/2017								<0.1	
5/15/2017	<0.1	<0.1	<0.1				<0.1		<0.1
5/18/2017				<0.1	<0.1	0.47		<0.1	
10/2/2017	<0.1	<0.1	<0.1				<0.1		<0.1
10/5/2017				<0.1	<0.1	0.22			
10/6/2017								<0.1	
12/19/2017						0.26 (R)			
3/12/2018	<0.1	<0.1	<0.1				<0.1		<0.1
3/14/2018				0.12	<0.1	0.3		<0.1	
6/5/2018	<0.1	<0.1	<0.1						
6/6/2018							<0.1		<0.1
6/10/2018				<0.1	<0.1	0.38			
6/11/2018								<0.1	
10/16/2018	<0.1	<0.1	<0.1						
10/17/2018							<0.1		<0.1
10/18/2018				<0.1	0.04 (J)	0.26		<0.1	
10/19/2018									

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	<0.1	<0.1		
3/2/2016			0.039 (J)	<0.1
5/2/2016				
5/3/2016				
5/4/2016		<0.1		
5/5/2016	<0.1		<0.1	<0.1
7/5/2016				
7/7/2016	<0.1		<0.1	<0.1
7/8/2016		<0.1		
9/6/2016	<0.1			
9/7/2016		<0.1	<0.1	<0.1
11/7/2016				
11/9/2016		<0.1		
11/10/2016	<0.1		<0.1	<0.1
1/9/2017				
1/11/2017		<0.1		
1/12/2017	<0.1		<0.1	<0.1
3/13/2017				
3/14/2017		<0.1		<0.1
3/15/2017	<0.1		<0.1	
5/15/2017				
5/18/2017	<0.1	<0.1	<0.1	<0.1
10/2/2017				
10/5/2017		<0.1		<0.1
10/6/2017	<0.1		<0.1	
12/19/2017				
3/12/2018				
3/14/2018	<0.1	<0.1	<0.1	<0.1
6/5/2018				
6/6/2018				
6/10/2018		<0.1		
6/11/2018	<0.1		0.04 (J)	<0.1
10/16/2018				
10/17/2018				
10/18/2018		<0.1	0.04 (J)	<0.1
10/19/2018	<0.1			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	<5	<5	1.6 (J)	<5					
3/1/2016					17	380	<5	26	<5
3/2/2016									
5/2/2016	15 (o)	<5	2.1 (J)						<5
5/3/2016							<5		
5/4/2016				<5					
5/5/2016					11	280		31	
7/5/2016	<5	<5	2 (J)				<5		<5
7/7/2016					33	330		31	
7/8/2016				<5					
9/6/2016	<5	<5	1.8 (J)	<5			<5		3.7 (J)
9/7/2016					18	550		41	
11/7/2016	<5	<5	1.7 (J)				<5		<5
11/9/2016					52	700			
11/10/2016				<5				39	
1/9/2017	<5	2.6 (J)	1.5 (J)				<5		<5
1/11/2017				<5	31	670			
1/12/2017								35	
3/13/2017	2.5 (J)	<5	2.2 (J)				<5		<5
3/14/2017				<5	20	670			
3/15/2017								43	
5/15/2017	<5	<5	1.9 (J)				<5		<5
5/18/2017				<5 (X)	35	790		35	
10/2/2017	<5	<5	3.4 (J)				1.5 (J)		1.7 (J)
10/5/2017				<5	7.7	500			
10/6/2017								39	
12/19/2017					51 (R)	400 (R)		36 (R)	
3/12/2018	<5	<5	2.6 (J)				<5		<5
3/14/2018				<5	22	540		38	
6/5/2018	<5	<5	2.6 (J)						
6/6/2018							<5		<5
6/10/2018				1.5 (J)	96	760			
6/11/2018								34	
10/16/2018	<5	<5	2.8 (J)						
10/17/2018							<5		<5
10/18/2018				<5	6.6	460		31	
10/19/2018									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	<5	<5		
3/2/2016			150	13
5/2/2016				
5/3/2016				
5/4/2016		<5		
5/5/2016	<5		200	15
7/5/2016				
7/7/2016	<5		200	14
7/8/2016		<5		
9/6/2016	<5			
9/7/2016		<5	200	15
11/7/2016				
11/9/2016		<5		
11/10/2016	<5		130	13
1/9/2017				
1/11/2017		<5		
1/12/2017	<5		240	12
3/13/2017				
3/14/2017		<5		10 (V)
3/15/2017	<5 (*)		300	
5/15/2017				
5/18/2017	<5 (X)	<5 (X)	270	8.7
10/2/2017				
10/5/2017		<5		9.8
10/6/2017	<5		140	
12/19/2017			280 (R)	8.4 (R)
3/12/2018				
3/14/2018	<5	<5	270	9.7
6/5/2018				
6/6/2018				
6/10/2018		1.4 (J)		
6/11/2018	1.7 (J)		270	10
10/16/2018				
10/17/2018				
10/18/2018		<5	280	8.1
10/19/2018	3.4 (J)			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-104	MW-106	MW-103	MW-306 (bg)	MW-102
2/29/2016	20	<5	12	20					
3/1/2016					760	<5	84	10	<5
3/2/2016									
5/2/2016	<5	<5	6						
5/3/2016								<5	
5/4/2016				6		12			
5/5/2016					620		76		<5
7/5/2016	12	14	<5					<5	
7/7/2016					640		54		24
7/8/2016				6		10			
9/6/2016	36	30	38	36				36	40
9/7/2016					1100	10	82		
11/7/2016	18	8	<5					<5	
11/9/2016					1300	26			
11/10/2016				16			80		20
1/9/2017	4 (J)	<5	14					<5	
1/11/2017				38	1600	28			
1/12/2017							110		54
3/13/2017	6	<5	8					22	
3/14/2017				<5	1200	<5			
3/15/2017							82		14
5/15/2017	<5	<5	<5					6	
5/18/2017				10	1500	26	100		38
10/2/2017	<5	<5	6					16	
10/5/2017				<5	980	<5			
10/6/2017							110		22
12/19/2017					900 (R)		72 (R)		
3/12/2018	18	14	<5					<5	
3/14/2018				8	1100	<5	66		14
6/5/2018	10	<5	14						
6/6/2018								20	
6/10/2018				8	1500	6			
6/11/2018							96		8
10/16/2018	32	12	6						
10/17/2018								44	
10/18/2018				28	860	68	64		
10/19/2018									54

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/5/2019 12:56 PM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-109	MW-110
2/29/2016				
3/1/2016	<5	290		
3/2/2016			30	440
5/2/2016	36			
5/3/2016				
5/4/2016				
5/5/2016		250	38	480
7/5/2016	<5			
7/7/2016		270	22	470
7/8/2016				
9/6/2016	44			
9/7/2016		270	38	440
11/7/2016	30			
11/9/2016		330		
11/10/2016			38	260
1/9/2017	12			
1/11/2017		330		
1/12/2017			40	630
3/13/2017	20			
3/14/2017		260	22	
3/15/2017				620
5/15/2017	4 (J)			
5/18/2017		360	24	640
10/2/2017	24			
10/5/2017		240	<5	
10/6/2017				360
12/19/2017		460 (R)		840 (R)
3/12/2018	<5			
3/14/2018		300	12	660
6/5/2018				
6/6/2018	16			
6/10/2018		560		
6/11/2018			26	670
10/16/2018				
10/17/2018	44			
10/18/2018		250	34	750
10/19/2018				

200 Series

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-200	0.081	n/a	11/13/2018	9.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.081	n/a	11/14/2018	2.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-202	0.081	n/a	11/14/2018	0.21	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-203	0.081	n/a	11/13/2018	1.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-204	0.081	n/a	10/19/2018	5	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-205	0.081	n/a	10/19/2018	2	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.081	n/a	10/17/2018	25	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.533	n/a	11/13/2018	220	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.533	n/a	11/14/2018	38	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-202	1.533	n/a	11/14/2018	83	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-203	1.533	n/a	11/13/2018	30	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-204	1.533	n/a	10/19/2018	68	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-205	1.533	n/a	10/19/2018	33	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.533	n/a	10/17/2018	530	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.868	n/a	11/13/2018	450	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.868	n/a	11/14/2018	41	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-202	6.868	n/a	11/14/2018	18	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-203	6.868	n/a	11/13/2018	17	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-204	6.868	n/a	10/19/2018	77	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-205	6.868	n/a	10/19/2018	58	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.868	n/a	10/17/2018	1200	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-201	0.12	n/a	11/14/2018	0.67	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-204	0.12	n/a	10/19/2018	0.28	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	11/13/2018	130	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	11/14/2018	110	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-202	5	n/a	11/14/2018	21	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-203	5	n/a	11/13/2018	100	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-204	5	n/a	10/19/2018	320	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-205	5	n/a	10/19/2018	120	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	10/17/2018	270	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	44	n/a	11/13/2018	1400	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-201	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-202	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-203	44	n/a	11/13/2018	150	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-204	44	n/a	10/19/2018	700	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-205	44	n/a	10/19/2018	310	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-206	44	n/a	10/17/2018	3800	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...

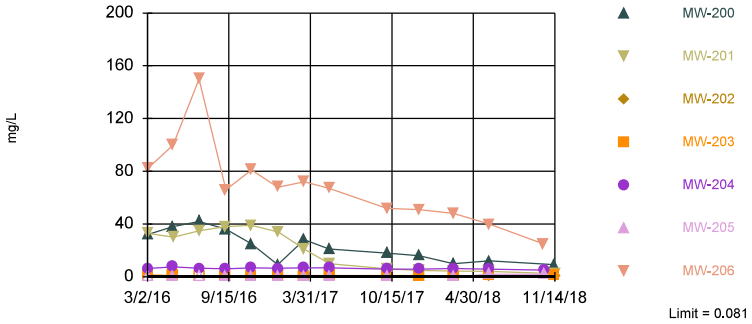
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-200	0.081	n/a	11/13/2018	9.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.081	n/a	11/14/2018	2.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-202	0.081	n/a	11/14/2018	0.21	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-203	0.081	n/a	11/13/2018	1.1	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-204	0.081	n/a	10/19/2018	5	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-205	0.081	n/a	10/19/2018	2	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.081	n/a	10/17/2018	25	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.533	n/a	11/13/2018	220	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.533	n/a	11/14/2018	38	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-202	1.533	n/a	11/14/2018	83	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-203	1.533	n/a	11/13/2018	30	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-204	1.533	n/a	10/19/2018	68	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-205	1.533	n/a	10/19/2018	33	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.533	n/a	10/17/2018	530	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.868	n/a	11/13/2018	450	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.868	n/a	11/14/2018	41	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-202	6.868	n/a	11/14/2018	18	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-203	6.868	n/a	11/13/2018	17	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-204	6.868	n/a	10/19/2018	77	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-205	6.868	n/a	10/19/2018	58	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.868	n/a	10/17/2018	1200	Yes	72	5.201	0.8748	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	MW-200	0.12	n/a	11/13/2018	0.1	No	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-201	0.12	n/a	11/14/2018	0.67	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-202	0.12	n/a	11/14/2018	0.08	No	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-203	0.12	n/a	11/13/2018	0.05	No	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-204	0.12	n/a	10/19/2018	0.28	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-205	0.12	n/a	10/19/2018	0.07	No	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-206	0.12	n/a	10/17/2018	0.12	No	72	n/a	n/a	97.22	n/a	n/a	0.0003689	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	11/13/2018	130	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	11/14/2018	110	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-202	5	n/a	11/14/2018	21	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-203	5	n/a	11/13/2018	100	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-204	5	n/a	10/19/2018	320	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-205	5	n/a	10/19/2018	120	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	10/17/2018	270	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003778	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	44	n/a	11/13/2018	1400	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-201	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-202	44	n/a	11/14/2018	230	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-203	44	n/a	11/13/2018	150	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-204	44	n/a	10/19/2018	700	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-205	44	n/a	10/19/2018	310	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-206	44	n/a	10/17/2018	3800	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003689	NP Inter (normality) ...

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 95.83% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

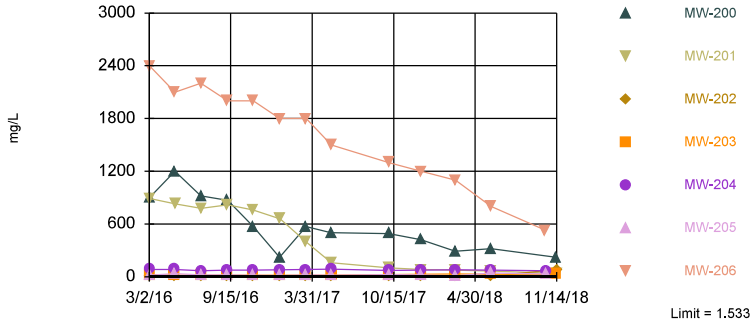
Constituent: Boron Analysis Run 2/5/2019 1:09 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-0.3534, Std. Dev.=0.4098, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9696, critical = 0.954. Kappa = 1.905 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

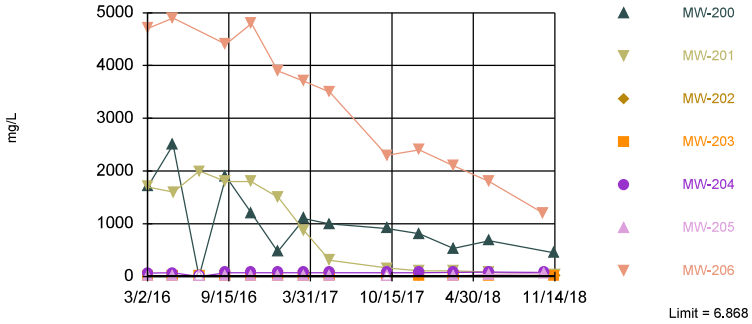
Constituent: Calcium Analysis Run 2/5/2019 1:10 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.201, Std. Dev.=0.8748, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.963, critical = 0.954. Kappa = 1.905 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

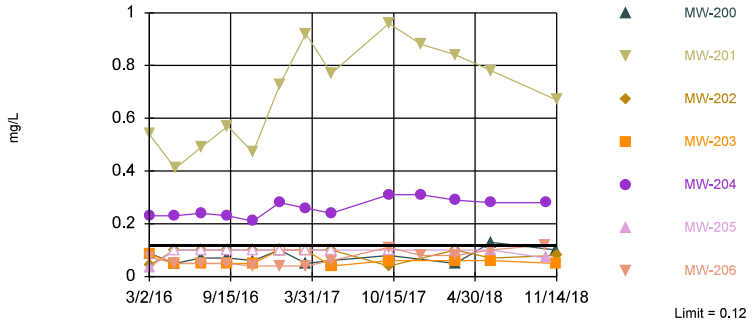
Constituent: Chloride Analysis Run 2/5/2019 1:10 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-201, MW-204

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 97.22% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

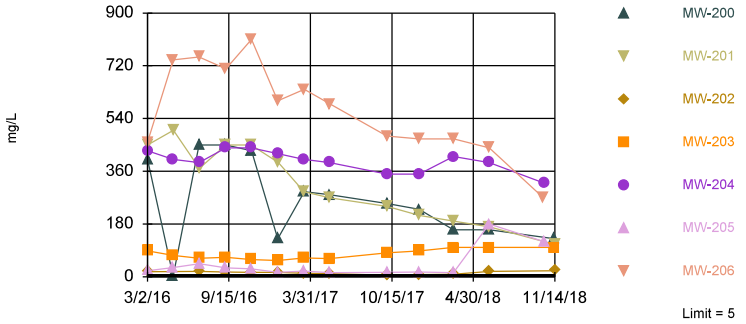
Constituent: Fluoride Analysis Run 2/5/2019 1:10 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 71 background values. 74.65% NDs. Annual per-constituent alpha = 0.005276. Individual comparison alpha = 0.0003778 (1 of 2). Comparing 7 points to limit.

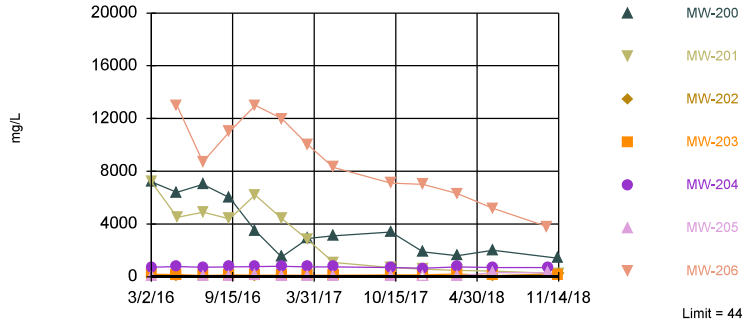
Constituent: Sulfate Analysis Run 2/5/2019 1:10 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-200, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. 33.33% NDs. Annual per-constituent alpha = 0.005153. Individual comparison alpha = 0.0003689 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/5/2019 1:10 PM View: PL's Interwell 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-307 (bg)	MW-306 (bg)	MW-206	MW-202	MW-205
2/29/2016	<0.05	<0.05	<0.05	<0.05					
3/1/2016					<0.05	<0.05			
3/2/2016							82	0.24 (J)	<0.05
3/3/2016									
5/2/2016	<0.05	<0.05		<0.05	<0.05				
5/3/2016						<0.05	100	0.32	0.059
5/4/2016			<0.05						
7/5/2016	<0.05	<0.05		<0.05	<0.05	<0.05	150		
7/6/2016								<0.05 (*)	<0.05 (*)
7/8/2016			<0.05						
9/6/2016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
9/8/2016							66	0.26	0.14
11/7/2016	<0.05	<0.05		<0.05	<0.05	<0.05			
11/8/2016								0.19	0.16
11/9/2016							81		
11/10/2016			<0.05						
1/9/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
1/11/2017			<0.05						
1/12/2017							68		0.045 (J)
1/13/2017								0.65	
3/13/2017	<0.05	0.022 (J)		<0.05	<0.05	<0.05			
3/14/2017			<0.05						
3/16/2017								0.12	0.072
3/17/2017							72		
5/15/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
5/16/2017									
5/17/2017							67	0.11	0.074
5/18/2017			<0.05						
10/2/2017	<0.05	0.023 (J)		<0.05	<0.05	<0.05			
10/3/2017							52		
10/4/2017								0.087	0.039 (J)
10/5/2017			<0.05						
12/20/2017							51	0.048 (I)	
3/12/2018	<0.05	<0.05		<0.05	<0.05	<0.05			
3/13/2018								0.027 (J)	0.084
3/14/2018			<0.05				48		
6/5/2018	<0.05	<0.05		<0.05					
6/6/2018					<0.05	<0.05			
6/8/2018							40		2
6/9/2018								0.11	
6/10/2018			<0.05						
10/16/2018	<0.05	<0.05		<0.05					
10/17/2018					<0.05	<0.05	25		
10/18/2018			0.081						
10/19/2018									2
11/13/2018									
11/14/2018								0.21	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-204	MW-201	MW-200	MW-203
2/29/2016				
3/1/2016				
3/2/2016	6.3	33	32	
3/3/2016				1.5
5/2/2016				
5/3/2016	7.6		38	0.97
5/4/2016		30		
7/5/2016	6.5		42	<0.05 (*)
7/6/2016		35		
7/8/2016				
9/6/2016				
9/8/2016	6.1	38	36	0.7
11/7/2016				
11/8/2016	6.7	39		0.55
11/9/2016			25	
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017	6.5		9.1	0.87
1/13/2017		34		
3/13/2017				
3/14/2017				
3/16/2017	6.8	21		0.83
3/17/2017			28	
5/15/2017				
5/16/2017			21	
5/17/2017	6.7	10		0.94
5/18/2017				
10/2/2017				
10/3/2017				
10/4/2017	5.9	6	18	0.97
10/5/2017				
12/20/2017	5.9	4.9 (R)	16 (R)	0.87
3/12/2018				
3/13/2018	6.2		10	0.69
3/14/2018		4.4		
6/5/2018				
6/6/2018				
6/8/2018	5.7		12	0.99
6/9/2018		4.1		
6/10/2018				
10/16/2018				
10/17/2018				
10/18/2018				
10/19/2018	5			
11/13/2018			9.1	1.1
11/14/2018		2.3		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-307 (bg)	MW-306 (bg)	MW-200	MW-205	MW-201
2/29/2016	1	0.67	1 (J)	1.4					
3/1/2016					1.5	0.6			
3/2/2016							900	19	890
3/3/2016									
5/2/2016	0.78	0.58		1.1	0.83				
5/3/2016						0.55	1200	36	
5/4/2016			0.62						830
7/5/2016	0.65	0.43		0.94	1.6	0.53	920		
7/6/2016								20	780
7/8/2016			0.4						
9/6/2016	0.7	0.48	0.45	1	1.6	0.5			
9/8/2016							870	22	820
11/7/2016	0.8	0.56		1.2	1.5	0.68			
11/8/2016								18	760
11/9/2016							570		
11/10/2016			0.44						
1/9/2017	0.74	0.43		1.2	0.98	0.56			
1/11/2017			0.42						
1/12/2017							220	14	
1/13/2017									660
3/13/2017	0.78	0.48		1.3	0.75	0.62			
3/14/2017			0.42						
3/16/2017								21	400
3/17/2017							570		
5/15/2017	0.76	0.37		1	0.83	0.58			
5/16/2017							500		
5/17/2017								16	160
5/18/2017			0.38						
10/2/2017	0.78	0.47		1.2	0.83	0.62			
10/3/2017									
10/4/2017							490	26	100
10/5/2017			0.39						
12/20/2017							420 (R)	21	82 (R)
3/12/2018	0.88	0.49		1.4	0.71	0.59			
3/13/2018							290	11	
3/14/2018			0.49						75
6/5/2018	0.9	0.49		1.2					
6/6/2018					0.68	0.59			
6/8/2018							320	44	
6/9/2018									64
6/10/2018			0.39						
10/16/2018	0.86	0.42		1.4					
10/17/2018					0.66	0.54			
10/18/2018			0.41						
10/19/2018								33	
11/13/2018							220		
11/14/2018									38

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-202	MW-206	MW-204	MW-203
2/29/2016				
3/1/2016				
3/2/2016	7.2	2400	85	
3/3/2016				25
5/2/2016				
5/3/2016	6.2	2100	84	18
5/4/2016				
7/5/2016		2200	69	17
7/6/2016	4.8			
7/8/2016				
9/6/2016				
9/8/2016	5.2	2000	77	17
11/7/2016				
11/8/2016	4.7		75	16
11/9/2016		2000		
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017		1800	78	16
1/13/2017	4.9			
3/13/2017				
3/14/2017				
3/16/2017	4		83	18
3/17/2017		1800		
5/15/2017				
5/16/2017				
5/17/2017	4	1500	86	19
5/18/2017				
10/2/2017				
10/3/2017		1300		
10/4/2017	4.9		74	24
10/5/2017				
12/20/2017	4.8	1200	76	28
3/12/2018				
3/13/2018	4.1		81	31
3/14/2018		1100		
6/5/2018				
6/6/2018				
6/8/2018		800	77	28
6/9/2018	5.8			
6/10/2018				
10/16/2018				
10/17/2018		530		
10/18/2018				
10/19/2018			68	
11/13/2018				30
11/14/2018	83			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-107 (bg)	MW-101 (bg)	MW-307 (bg)	MW-306 (bg)	MW-202	MW-204	MW-201
2/29/2016	5.3	7.4	8.1	5.4					
3/1/2016					4	5.6			
3/2/2016							12	64	1700
3/3/2016									
5/2/2016	4.4	6.3	6		3.6				
5/3/2016						5.1	15	69	
5/4/2016				4.5					1600
7/5/2016	4.2	4.8	5.2		3.6	4.7		<2.7 (*)	
7/6/2016							<2.7 (*)		2000
7/8/2016				4.9					
9/6/2016	4.3	6	5.5	4.3	4	4.4			
9/8/2016							13	74	1800
11/7/2016	4.2	5.7	5.4		4.4	4.6			
11/8/2016							12	71	1800
11/9/2016									
11/10/2016				4.5					
1/9/2017	5.3	6.8	6.1		4.4	5.3			
1/11/2017				5.3					
1/12/2017								71	
1/13/2017							13		1500
3/13/2017	5.2	6.8	5.5		4.1	5.6			
3/14/2017				5.5					
3/16/2017							11	73	870
3/17/2017									
5/15/2017	4.8	6.1	4.7		3.7	5.2			
5/16/2017									
5/17/2017							10	73	310
5/18/2017				5					
10/2/2017	5.5	6	6.1		4.8	5.5			
10/3/2017									
10/4/2017							17	70	160
10/5/2017				5.6					
12/20/2017							20	72	110 (R)
3/12/2018	5.3	5.9	6.1		4	5.6			
3/13/2018							14	81	
3/14/2018				5.2					110
6/5/2018	5.3	6.5	5.5						
6/6/2018					4.1	5.6			
6/8/2018								82	
6/9/2018							24		86
6/10/2018				5.2					
10/16/2018	5.5	5.9	5.1						
10/17/2018					3.7	5.5			
10/18/2018				5.2					
10/19/2018								77	
11/13/2018									
11/14/2018							18		41

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-200	MW-205	MW-206	MW-203
2/29/2016				
3/1/2016				
3/2/2016	1700	6.2	4700	
3/3/2016				19
5/2/2016				
5/3/2016	2500	3.6	4900	14
5/4/2016				
7/5/2016	<2.7 (*)		360 (o)	<2.7 (*)
7/6/2016		<2.7 (*)		
7/8/2016				
9/6/2016				
9/8/2016	1900	3	4400	12
11/7/2016				
11/8/2016		5.9		12
11/9/2016	1200		4800	
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017	470	4.5	3900	12
1/13/2017				
3/13/2017				
3/14/2017				
3/16/2017		5.9		14
3/17/2017	1100		3700	
5/15/2017				
5/16/2017	1000			
5/17/2017		4.4	3500	15
5/18/2017				
10/2/2017				
10/3/2017			2300	
10/4/2017	910	<2.7 (*)		17
10/5/2017				
12/20/2017	810 (R)		2400	15
3/12/2018				
3/13/2018	530	4.1		14
3/14/2018			2100	
6/5/2018				
6/6/2018				
6/8/2018	680	43	1800	15
6/9/2018				
6/10/2018				
10/16/2018				
10/17/2018			1200	
10/18/2018				
10/19/2018		58		
11/13/2018	450			17
11/14/2018				

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-107 (bg)	MW-101 (bg)	MW-307 (bg)	MW-306 (bg)	MW-201	MW-200	MW-204
2/29/2016	<0.1	<0.1	<0.1	<0.1					
3/1/2016					0.033 (J)	<0.1			
3/2/2016							0.54	0.088 (J)	0.23
3/3/2016									
5/2/2016	<0.1	<0.1	<0.1		<0.1				
5/3/2016						<0.1		0.05 (J)	0.23
5/4/2016				<0.1			0.41		
7/5/2016	<0.1	<0.1	<0.1		<0.1	<0.1		0.07 (J)	0.24
7/6/2016							0.49		
7/8/2016				<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
9/8/2016							0.57	0.07 (J)	0.23
11/7/2016	<0.1	<0.1	<0.1		<0.1	<0.1			
11/8/2016							0.47		0.21
11/9/2016								0.06 (J)	
11/10/2016				<0.1					
1/9/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
1/11/2017				<0.1					
1/12/2017								<0.1	0.28
1/13/2017							0.73		
3/13/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
3/14/2017				<0.1					
3/16/2017							0.92		0.26
3/17/2017								0.05 (J)	
5/15/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
5/16/2017								0.06 (J)	
5/17/2017							0.77		0.24
5/18/2017				<0.1					
10/2/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
10/3/2017									
10/4/2017							0.96	0.08 (J)	0.31
10/5/2017				<0.1					
12/20/2017							0.88 (R)		0.31
3/12/2018	<0.1	<0.1	<0.1		<0.1	<0.1			
3/13/2018								0.05 (J)	0.29
3/14/2018				0.12			0.84		
6/5/2018	<0.1	<0.1	<0.1						
6/6/2018					<0.1	<0.1			
6/8/2018								0.13	0.28
6/9/2018							0.78		
6/10/2018				<0.1					
10/16/2018	<0.1	<0.1	<0.1						
10/17/2018					<0.1	<0.1			
10/18/2018				<0.1					
10/19/2018									0.28
11/13/2018								0.1	
11/14/2018							0.67		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-205	MW-206	MW-202	MW-203
2/29/2016				
3/1/2016				
3/2/2016	0.035 (J)	0.074 (J)	0.042 (J)	
3/3/2016				0.085 (J)
5/2/2016				
5/3/2016	<0.1	0.05 (J)	<0.1	0.05 (J)
5/4/2016				
7/5/2016		0.05 (J)		0.05 (J)
7/6/2016	<0.1		<0.1	
7/8/2016				
9/6/2016				
9/8/2016	<0.1	0.05 (J)	<0.1	0.05 (J)
11/7/2016				
11/8/2016	<0.1		<0.1	0.05 (J)
11/9/2016		0.04 (J)		
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017	<0.1	0.04 (J)		<0.1
1/13/2017			<0.1	
3/13/2017				
3/14/2017				
3/16/2017	<0.1		<0.1	<0.1
3/17/2017		0.04 (J)		
5/15/2017				
5/16/2017				
5/17/2017	<0.1	0.06 (J)	<0.1	0.04 (J)
5/18/2017				
10/2/2017				
10/3/2017		0.11		
10/4/2017	<0.1		0.04 (J)	0.06 (J)
10/5/2017				
12/20/2017		0.08 (I)		
3/12/2018				
3/13/2018	<0.1		<0.1	0.06 (J)
3/14/2018		0.08 (J)		
6/5/2018				
6/6/2018				
6/8/2018	0.1	0.1		0.06 (J)
6/9/2018			0.07 (J)	
6/10/2018				
10/16/2018				
10/17/2018		0.12		
10/18/2018				
10/19/2018	0.07 (J)			
11/13/2018				0.05 (J)
11/14/2018			0.08 (J)	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200	MW-206	MW-204
2/29/2016	<5	<5	<5	1.6 (J)					
3/1/2016					<5	<5			
3/2/2016							400	460	430
3/3/2016									
5/2/2016	15 (o)	<5		2.1 (J)		<5			
5/3/2016					<5		2.2 (J)	740	400
5/4/2016			<5						
7/5/2016	<5	<5		2 (J)	<5	<5	450 (J)	750	390
7/6/2016									
7/8/2016			<5						
9/6/2016	<5	<5	<5	1.8 (J)	<5	3.7 (J)			
9/8/2016							450	710	440
11/7/2016	<5	<5		1.7 (J)	<5	<5			
11/8/2016									440
11/9/2016							430	810	
11/10/2016			<5						
1/9/2017	<5	2.6 (J)		1.5 (J)	<5	<5			
1/11/2017			<5						
1/12/2017							130	600	420
1/13/2017									
3/13/2017	2.5 (J)	<5		2.2 (J)	<5	<5			
3/14/2017			<5						
3/16/2017									400
3/17/2017							290	640	
5/15/2017	<5	<5		1.9 (J)	<5	<5			
5/16/2017							280		
5/17/2017								590	390
5/18/2017			<5 (X)						
10/2/2017	<5	<5		3.4 (J)	1.5 (J)	1.7 (J)			
10/3/2017								480	
10/4/2017							250		350
10/5/2017			<5						
12/20/2017							230 (R)	470	350
3/12/2018	<5	<5		2.6 (J)	<5	<5			
3/13/2018							160		410
3/14/2018			<5					470	
6/5/2018	<5	<5		2.6 (J)					
6/6/2018					<5	<5			
6/8/2018							160	440	390
6/9/2018									
6/10/2018			1.5 (J)						
10/16/2018	<5	<5		2.8 (J)					
10/17/2018					<5	<5		270	
10/18/2018			<5						
10/19/2018									320
11/13/2018							130		
11/14/2018									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-205	MW-201	MW-202	MW-203
2/29/2016				
3/1/2016				
3/2/2016	21	450	17	
3/3/2016				88
5/2/2016				
5/3/2016	32		360 (o)	73
5/4/2016		500		
7/5/2016				63
7/6/2016	45 (J)	370	18	
7/8/2016				
9/6/2016				
9/8/2016	30	450	16	66
11/7/2016				
11/8/2016	27	450	15	59
11/9/2016				
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017	15			55
1/13/2017		390	15	
3/13/2017				
3/14/2017				
3/16/2017	19	290	12 (V)	64
3/17/2017				
5/15/2017				
5/16/2017				
5/17/2017	14	270	11	62 (J)
5/18/2017				
10/2/2017				
10/3/2017				
10/4/2017	15	240	<5 (*)	82
10/5/2017				
12/20/2017	16	210 (R)	8	88
3/12/2018				
3/13/2018	14		8.6	100
3/14/2018		190		
6/5/2018				
6/6/2018				
6/8/2018	180			100
6/9/2018		170	18	
6/10/2018				
10/16/2018				
10/17/2018				
10/18/2018				
10/19/2018	120			
11/13/2018				100
11/14/2018		110	21	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-107 (bg)	MW-101 (bg)	MW-307 (bg)	MW-306 (bg)	MW-202	MW-204	MW-201
2/29/2016	20	12	<5	20					
3/1/2016					<5	10			
3/2/2016							50	730	7200
3/3/2016									
5/2/2016	<5	6	<5		36				
5/3/2016						<5	62	770	
5/4/2016				6					4500
7/5/2016	12	<5	14		<5	<5		730	
7/6/2016							32		4900
7/8/2016				6					
9/6/2016	36	38	30	36	44	36			
9/8/2016							68	750	4400
11/7/2016	18	<5	8		30	<5			
11/8/2016							56	770	6200
11/9/2016									
11/10/2016				16					
1/9/2017	4 (J)	14	<5		12	<5			
1/11/2017				38					
1/12/2017								790	
1/13/2017							20		4400
3/13/2017	6	8	<5		20	22			
3/14/2017				<5					
3/16/2017							42	750	2800
3/17/2017									
5/15/2017	<5	<5	<5		4 (J)	6			
5/16/2017									
5/17/2017							26	750	1100
5/18/2017				10					
10/2/2017	<5	6	<5		24	16			
10/3/2017									
10/4/2017							48	710	700
10/5/2017				<5					
12/20/2017							54	640	590 (R)
3/12/2018	18	<5	14		<5	<5			
3/13/2018							52	760	
3/14/2018				8					490
6/5/2018	10	14	<5						
6/6/2018					16	20			
6/8/2018								700	
6/9/2018							72		430
6/10/2018				8					
10/16/2018	32	6	12						
10/17/2018					44	44			
10/18/2018				28					
10/19/2018								700	
11/13/2018									
11/14/2018							230		230

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 2:03 PM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-200	MW-205	MW-203	MW-206
2/29/2016				
3/1/2016				
3/2/2016	7200	58		32000 (o)
3/3/2016			190	
5/2/2016				
5/3/2016	6400	160 (o)	160	13000
5/4/2016				
7/5/2016	7000		96	8700
7/6/2016		70		
7/8/2016				
9/6/2016				
9/8/2016	6000	66	140	11000 (Q)
11/7/2016				
11/8/2016		100	130	
11/9/2016	3500			13000
11/10/2016				
1/9/2017				
1/11/2017				
1/12/2017	1500	44	120	12000
1/13/2017				
3/13/2017				
3/14/2017				
3/16/2017		70	130	
3/17/2017	2900			10000
5/15/2017				
5/16/2017	3100			
5/17/2017		46	110	8300
5/18/2017				
10/2/2017				
10/3/2017				7100
10/4/2017	3400	50	150	
10/5/2017				
12/20/2017	1900 (R)	<5	150	7000
3/12/2018				
3/13/2018	1600	66	210	
3/14/2018				6300
6/5/2018				
6/6/2018				
6/8/2018	2000	320	98	5200
6/9/2018				
6/10/2018				
10/16/2018				
10/17/2018				3800
10/18/2018				
10/19/2018		310		
11/13/2018	1400		150	
11/14/2018				

Intrawell Prediction Limit Summary - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Field pH (SU)	**MW-202**	**5.435**	**4.005**	**11/14/2018**	**6.79**	**Yes 8**	**4.72**	**0.2445**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**
Field pH (SU)	**MW-205**	**6.232**	**4.905**	**10/19/2018**	**4.81**	**Yes 8**	**5.569**	**0.2269**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - 200 Series All Results

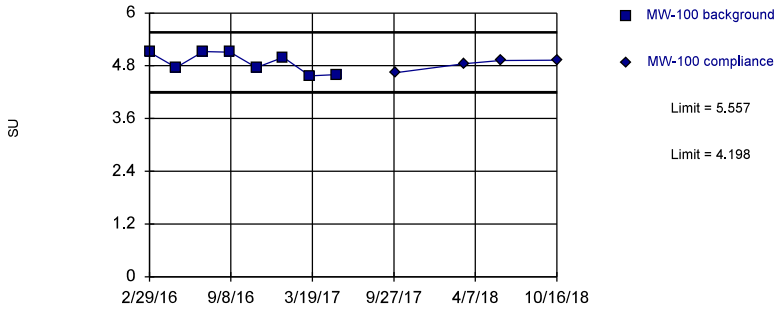
Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Field pH (SU)	MW-100	5.557	4.198	10/16/2018	4.93	No	8	4.878	0.2326	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-101	5.833	4.097	10/18/2018	4.97	No	8	4.965	0.297	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-107	5.778	4.117	10/16/2018	4.98	No	8	4.948	0.2841	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	10/16/2018	4.81	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) ...
Field pH (SU)	MW-306	5.759	4.366	10/17/2018	4.99	No	8	5.063	0.2384	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-307	7.045	4.866	10/17/2018	5.54	No	8	5.956	0.3728	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-200	5.4	4.525	11/13/2018	5.11	No	8	4.963	0.1495	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-201	6.048	4.502	11/14/2018	4.85	No	8	5.275	0.2646	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	**MW-202**	**5.435**	**4.005**	**11/14/2018**	**6.79**	**Yes**	**8**	**4.72**	**0.2445**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**
Field pH (SU)	MW-203	5.09	4.281	11/13/2018	4.83	No	9	4.686	0.146	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	MW-204	5.369	3.671	10/19/2018	4.3	No	8	4.52	0.2906	0	None	No	0.0005373	Param Intra 1 of 2
Field pH (SU)	**MW-205**	**6.232**	**4.905**	**10/19/2018**	**4.81**	**Yes**	**8**	**5.569**	**0.2269**	**0**	**None**	**No**	**0.0005373**	**Param Intra 1 of 2**
Field pH (SU)	MW-206	4.881	3.759	10/17/2018	4.41	No	8	4.32	0.1921	0	None	No	0.0005373	Param Intra 1 of 2

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.878, Std. Dev.=0.2326, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

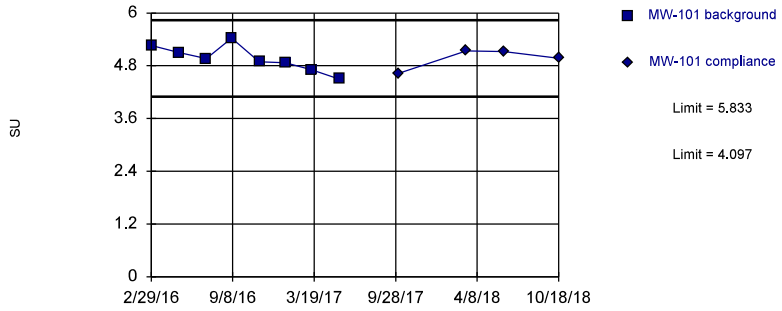
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.965, Std. Dev.=0.297, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9876, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

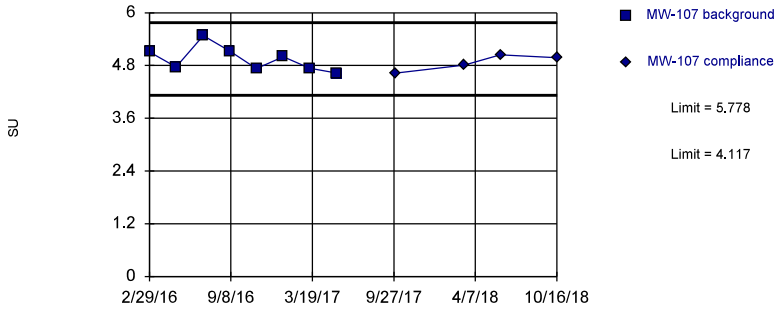
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.948, Std. Dev.=0.2841, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9051, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

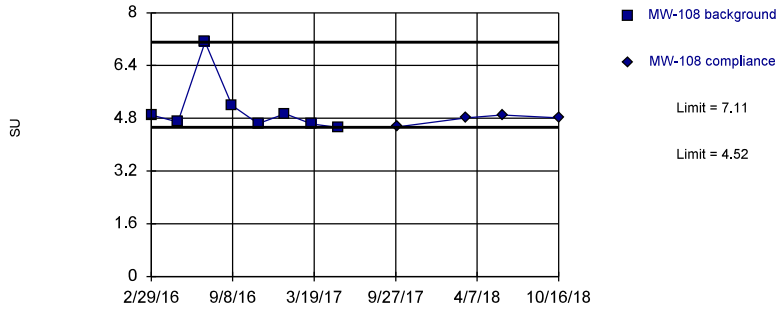
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2).

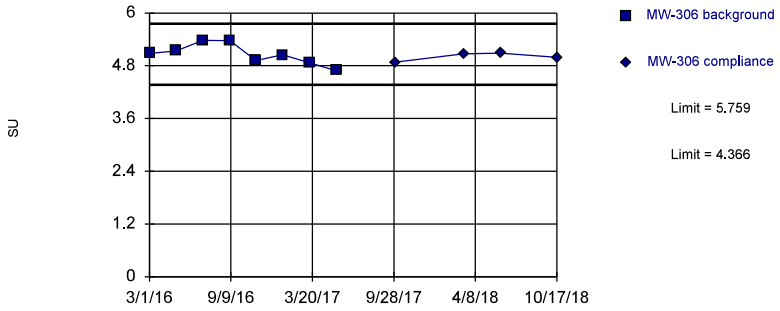
Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.063, Std. Dev.=0.2384, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

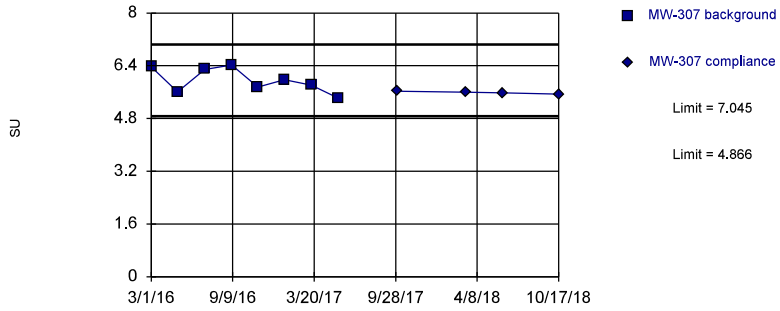
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.956, Std. Dev.=0.3728, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

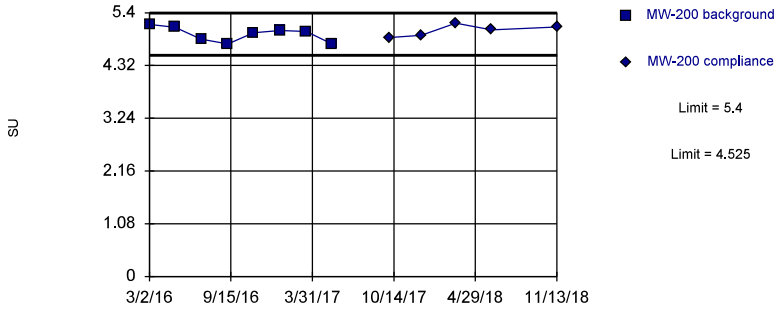
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.963, Std. Dev.=0.1495, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9202, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

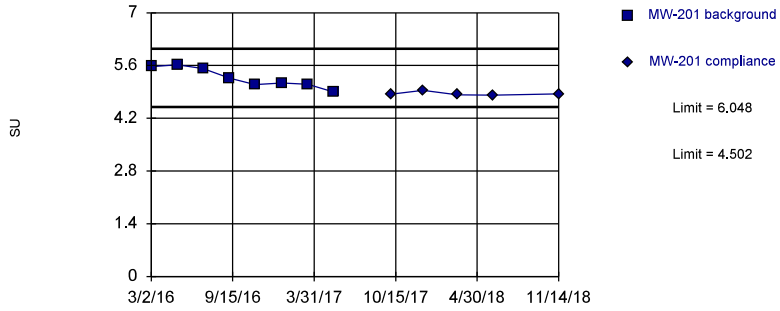
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.275, Std. Dev.=0.2646, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

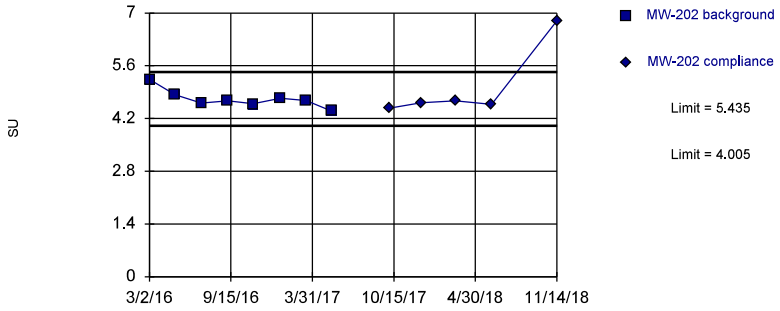
Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.72, Std. Dev.=0.2445, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8821, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

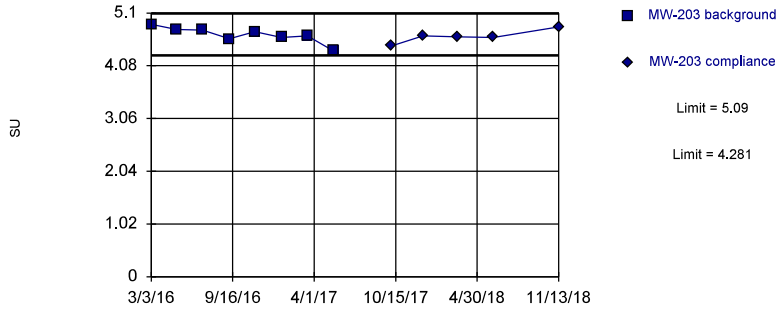
Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.686, Std. Dev.=0.146, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9105, critical = 0.764. Kappa = 2.772 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

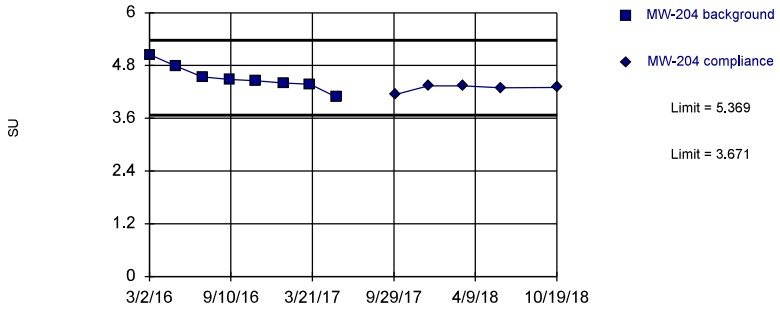
Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.52, Std. Dev.=0.2906, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

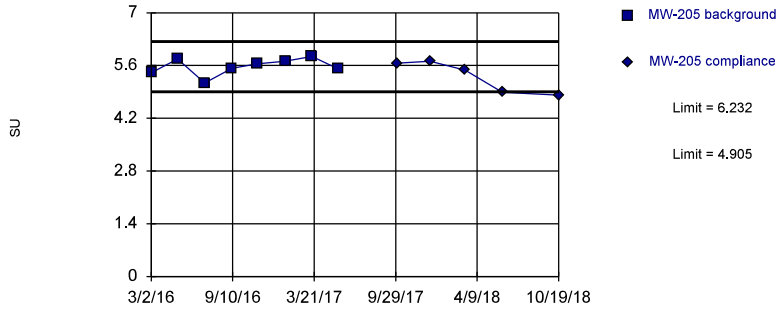
Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.569, Std. Dev.=0.2269, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

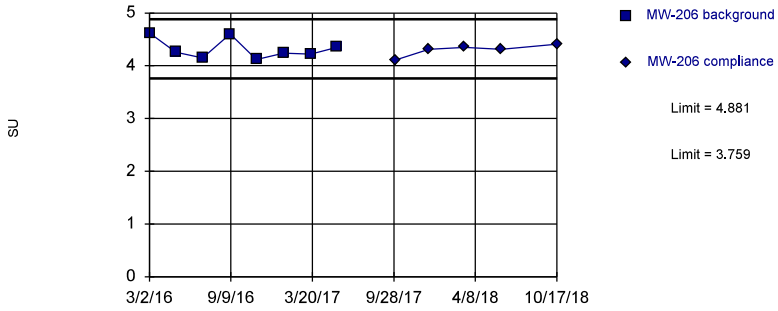
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.32, Std. Dev.=0.1921, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.851, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Field pH Analysis Run 2/6/2019 10:02 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100	MW-100
2/29/2016	5.11	
5/2/2016	4.76	
7/5/2016	5.12	
9/6/2016	5.11	
11/7/2016	4.76	
1/9/2017	4.99	
3/13/2017	4.57	
5/15/2017	4.6	
10/2/2017		4.64
3/12/2018		4.85
6/5/2018		4.92
10/16/2018		4.93

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-101	MW-101
2/29/2016	5.26	
5/4/2016	5.1	
7/8/2016	4.96	
9/6/2016	5.43	
11/10/2016	4.89	
1/11/2017	4.87	
3/14/2017	4.71	
5/18/2017	4.5	
10/5/2017		4.63
3/14/2018		5.14
6/10/2018		5.12
10/18/2018		4.97

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107	MW-107
2/29/2016	5.11	
5/2/2016	4.77	
7/5/2016	5.48	
9/6/2016	5.12	
11/7/2016	4.73	
1/9/2017	5	
3/13/2017	4.74	
5/15/2017	4.63	
10/2/2017		4.63
3/12/2018		4.81
6/5/2018		5.04
10/16/2018		4.98

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-108	MW-108
2/29/2016	4.9	
5/2/2016	4.69	
7/5/2016	7.11	
9/6/2016	5.19	
11/7/2016	4.64	
1/9/2017	4.94	
3/13/2017	4.63	
5/15/2017	4.52	
10/2/2017		4.54
3/12/2018		4.81
6/5/2018		4.9
10/16/2018		4.81

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-306	MW-306
3/1/2016	5.08	
5/3/2016	5.14	
7/5/2016	5.38	
9/6/2016	5.37	
11/7/2016	4.92	
1/9/2017	5.05	
3/13/2017	4.87	
5/15/2017	4.69	
10/2/2017		4.88
3/12/2018		5.07
6/6/2018		5.09
10/17/2018		4.99

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307	MW-307
3/1/2016	6.37	
5/2/2016	5.605 (D)	
7/5/2016	6.29	
9/6/2016	6.42	
11/7/2016	5.75	
1/9/2017	5.98	
3/13/2017	5.81	
5/15/2017	5.42	
10/2/2017		5.63
3/12/2018		5.6
6/6/2018		5.58
10/17/2018		5.54

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-200	MW-200
3/2/2016	5.16 (D)	
5/3/2016	5.1	
7/5/2016	4.86	
9/8/2016	4.76	
11/9/2016	4.99	
1/12/2017	5.04	
3/17/2017	5.02	
5/16/2017	4.77	
10/4/2017		4.89
12/20/2017		4.94 (R)
3/13/2018		5.19
6/8/2018		5.05
11/13/2018		5.11

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-201
3/2/2016	5.57	
5/4/2016	5.62	
7/6/2016	5.52	
9/8/2016	5.26	
11/8/2016	5.09	
1/13/2017	5.14	
3/16/2017	5.1	
5/17/2017	4.9	
10/4/2017		4.84
12/20/2017		4.94 (R)
3/14/2018		4.82
6/9/2018		4.81
11/14/2018		4.85

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-202	MW-202
3/2/2016	5.24	
5/3/2016	4.83	
7/6/2016	4.61	
9/8/2016	4.67	
11/8/2016	4.59	
1/13/2017	4.74	
3/16/2017	4.68	
5/17/2017	4.4	
10/4/2017		4.47
12/20/2017		4.62 (R)
3/13/2018		4.67
6/9/2018		4.58
11/14/2018		6.79

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-203	MW-203
3/3/2016	4.88	
5/3/2016	4.78	
7/5/2016	4.77	
9/8/2016	4.6	
11/8/2016	4.74	
11/9/2016	4.74	
1/12/2017	4.63	
3/16/2017	4.66	
5/17/2017	4.37	
10/4/2017		4.46
12/20/2017		4.66
3/13/2018		4.64
6/8/2018		4.63
11/13/2018		4.83

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-204	MW-204
3/2/2016	5.05	
5/3/2016	4.79	
7/5/2016	4.54	
9/8/2016	4.48	
11/8/2016	4.45	
1/12/2017	4.4	
3/16/2017	4.37	
5/17/2017	4.08	
10/4/2017		4.14
12/20/2017		4.34 (R)
3/13/2018		4.34
6/8/2018		4.29
10/19/2018		4.3

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-205	MW-205
3/2/2016	5.405 (D)	
5/3/2016	5.77	
7/6/2016	5.135 (D)	
9/8/2016	5.53	
11/8/2016	5.65	
1/12/2017	5.71	
3/16/2017	5.84	
5/17/2017	5.51	
10/4/2017		5.66
12/20/2017		5.71
3/13/2018		5.48
6/8/2018		4.89
10/19/2018		4.81

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 2:04 PM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-206	MW-206
3/2/2016	4.62	
5/3/2016	4.26	
7/5/2016	4.15	
9/8/2016	4.6	
11/9/2016	4.12	
1/12/2017	4.24	
3/17/2017	4.22	
5/17/2017	4.35	
10/3/2017		4.11
12/20/2017		4.31
3/14/2018		4.35
6/8/2018		4.31
10/17/2018		4.41

300 Series

Interwell Prediction Limit Summary - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-303	0.081	n/a	10/17/2018	7.3	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-304	0.081	n/a	10/17/2018	1.6	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-308	0.081	n/a	10/17/2018	2.8	Yes	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-303	1.484	n/a	10/17/2018	93	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-304	1.484	n/a	10/17/2018	130	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-308	1.484	n/a	10/17/2018	60	Yes	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-300	6.799	n/a	10/18/2018	8.1	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-303	6.799	n/a	10/17/2018	110	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-304	6.799	n/a	10/17/2018	45	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-305	6.799	n/a	10/17/2018	6.8	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-308	6.799	n/a	10/17/2018	70	Yes	72	5.201	0.8748	0	None	No	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	MW-303	0.12	n/a	10/17/2018	0.29	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-308	0.12	n/a	10/17/2018	0.14	Yes	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-303	5	n/a	10/17/2018	250	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-304	5	n/a	10/17/2018	320	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-308	5	n/a	10/17/2018	140	Yes	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-303	44	n/a	10/17/2018	700	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-304	44	n/a	10/17/2018	770	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-305	44	n/a	10/17/2018	68	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	MW-308	44	n/a	10/17/2018	390	Yes	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...

Interwell Prediction Limit Summary - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:17 AM

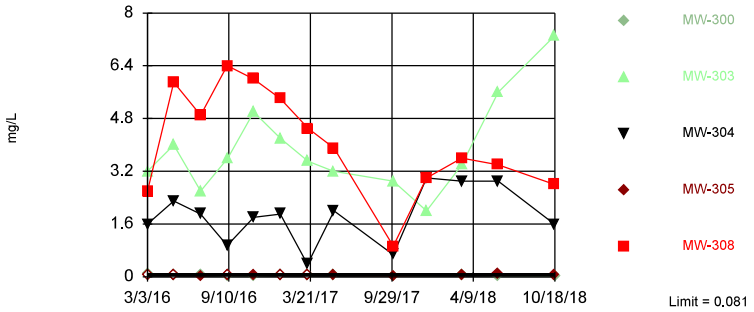
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Boron (mg/L)	MW-300	0.081	n/a	10/18/2018	0.022	No	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-303**	**0.081**	**n/a**	**10/17/2018**	**7.3**	**Yes**	**72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003703**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-304**	**0.081**	**n/a**	**10/17/2018**	**1.6**	**Yes**	**72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003703**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-305	0.081	n/a	10/17/2018	0.074	No	72	n/a	n/a	95.83	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-308**	**0.081**	**n/a**	**10/17/2018**	**2.8**	**Yes**	**72**	**n/a**	**n/a**	**95.83**	**n/a**	**n/a**	**0.0003703**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	MW-300	1.484	n/a	10/18/2018	0.48	No	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	**MW-303**	**1.484**	**n/a**	**10/17/2018**	**93**	**Yes**	**72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-304**	**1.484**	**n/a**	**10/17/2018**	**130**	**Yes**	**72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	MW-305	1.484	n/a	10/17/2018	0.73	No	72	-0.3534	0.4098	0	None	ln(x)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	**MW-308**	**1.484**	**n/a**	**10/17/2018**	**60**	**Yes**	**72**	**-0.3534**	**0.4098**	**0**	**None**	**ln(x)**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-300**	**6.799**	**n/a**	**10/18/2018**	**8.1**	**Yes**	**72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-303**	**6.799**	**n/a**	**10/17/2018**	**110**	**Yes**	**72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-304**	**6.799**	**n/a**	**10/17/2018**	**45**	**Yes**	**72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-305**	**6.799**	**n/a**	**10/17/2018**	**6.8**	**Yes**	**72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-308**	**6.799**	**n/a**	**10/17/2018**	**70**	**Yes**	**72**	**5.201**	**0.8748**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-300	0.12	n/a	10/18/2018	0.1ND	No	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-303**	**0.12**	**n/a**	**10/17/2018**	**0.29**	**Yes**	**72**	**n/a**	**n/a**	**97.22**	**n/a**	**n/a**	**0.0003703**	**NP Inter (NDs) 1 of 2**
Fluoride (mg/L)	MW-304	0.12	n/a	10/17/2018	0.06	No	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-305	0.12	n/a	10/17/2018	0.1ND	No	72	n/a	n/a	97.22	n/a	n/a	0.0003703	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-308**	**0.12**	**n/a**	**10/17/2018**	**0.14**	**Yes**	**72**	**n/a**	**n/a**	**97.22**	**n/a**	**n/a**	**0.0003703**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-300	5	n/a	10/18/2018	5ND	No	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-303**	**5**	**n/a**	**10/17/2018**	**250**	**Yes**	**71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003792**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-304**	**5**	**n/a**	**10/17/2018**	**320**	**Yes**	**71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003792**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-305	5	n/a	10/17/2018	5ND	No	71	n/a	n/a	74.65	n/a	n/a	0.0003792	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-308**	**5**	**n/a**	**10/17/2018**	**140**	**Yes**	**71**	**n/a**	**n/a**	**74.65**	**n/a**	**n/a**	**0.0003792**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	MW-300	44	n/a	10/18/2018	12	No	72	n/a	n/a	33.33	n/a	n/a	0.0003703	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	**MW-303**	**44**	**n/a**	**10/17/2018**	**700**	**Yes**	**72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003703**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-304**	**44**	**n/a**	**10/17/2018**	**770**	**Yes**	**72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003703**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-305**	**44**	**n/a**	**10/17/2018**	**68**	**Yes**	**72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003703**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	**MW-308**	**44**	**n/a**	**10/17/2018**	**390**	**Yes**	**72**	**n/a**	**n/a**	**33.33**	**n/a**	**n/a**	**0.0003703**	**NP Inter (normality) ...**

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-303, MW-304, MW-308

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 95.83% NDs. Annual per-constituent alpha = 0.003697. Individual comparison alpha = 0.0003703 (1 of 2). Comparing 5 points to limit.

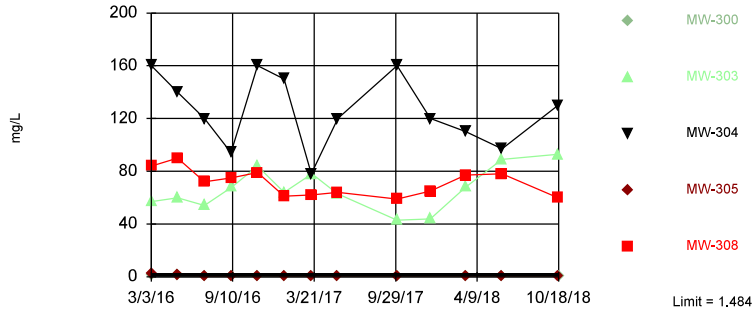
Constituent: Boron Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-303, MW-304, MW-308

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-0.3534, Std. Dev.=0.4098, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9696, critical = 0.954. Kappa = 1.826 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

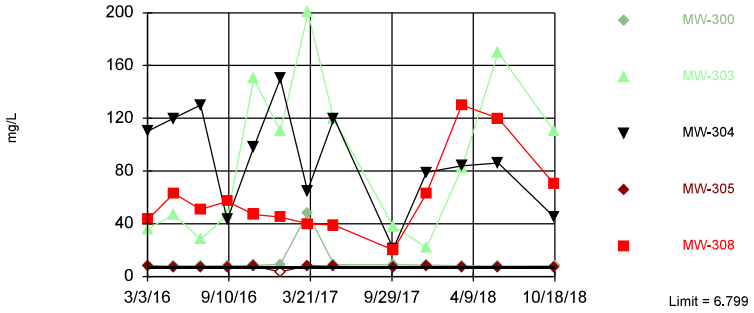
Constituent: Calcium Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-300, MW-303, MW-304, MW-305, MW-308

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.201, Std. Dev.=0.8748, n=72. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.963, critical = 0.954. Kappa = 1.826 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

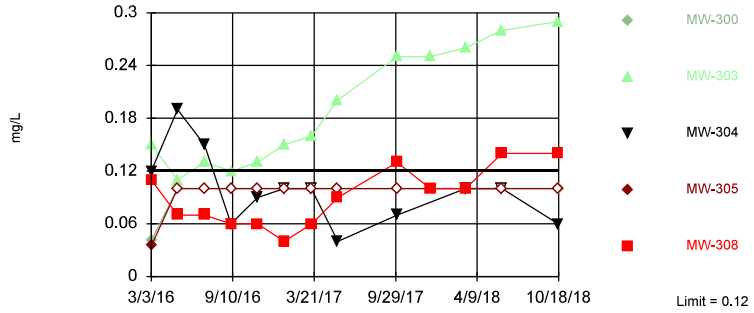
Constituent: Chloride Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-303, MW-308

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 72 background values. 97.22% NDs. Annual per-constituent alpha = 0.003697. Individual comparison alpha = 0.0003703 (1 of 2). Comparing 5 points to limit.

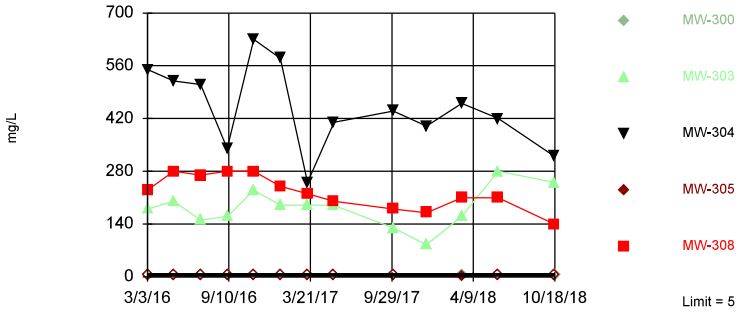
Constituent: Fluoride Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-303, MW-304, MW-308

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 71 background values. 74.65% NDs. Annual per-constituent alpha = 0.003785. Individual comparison alpha = 0.0003792 (1 of 2). Comparing 5 points to limit.

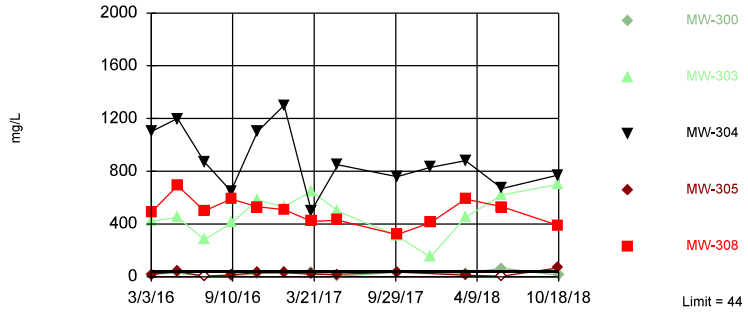
Constituent: Sulfate Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-303, MW-304, MW-305, MW-308

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 72 background values. 33.33% NDs. Annual per-constituent alpha = 0.003697. Individual comparison alpha = 0.0003703 (1 of 2). Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/6/2019 10:13 AM View: PL's Interwell 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-306 (bg)	MW-307 (bg)	MW-308	MW-305	MW-304
2/29/2016	<0.05	<0.05	<0.05	<0.05					
3/1/2016					<0.05	<0.05			
3/3/2016							2.6	<0.05	1.6
5/2/2016	<0.05	<0.05		<0.05		<0.05			
5/3/2016					<0.05				
5/4/2016			<0.05				5.9	<0.05 (*)	2.3
7/5/2016	<0.05	<0.05		<0.05	<0.05	<0.05			
7/6/2016							4.9		1.9
7/7/2016								0.034 (J)	
7/8/2016			<0.05						
9/6/2016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
9/7/2016							6.4	<0.05	0.95
9/8/2016									
11/7/2016	<0.05	<0.05		<0.05	<0.05	<0.05		0.045 (J)	
11/8/2016							6		1.8
11/10/2016			<0.05						
1/9/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
1/10/2017							5.4	<0.05 (*)	1.9
1/11/2017			<0.05						
3/13/2017	<0.05	0.022 (J)		<0.05	<0.05	<0.05			
3/14/2017			<0.05						
3/15/2017								<0.05	0.38
3/16/2017							4.5		
5/15/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
5/16/2017							3.9	0.043 (J)	2
5/18/2017			<0.05						
10/2/2017	<0.05	0.023 (J)		<0.05	<0.05	<0.05			
10/3/2017							0.93	0.026 (J)	0.67
10/5/2017			<0.05						
12/20/2017							3		3
3/12/2018	<0.05	<0.05		<0.05	<0.05	<0.05			
3/13/2018							3.6	0.07	2.9
3/14/2018			<0.05						
6/5/2018	<0.05	<0.05		<0.05					
6/6/2018					<0.05	<0.05			
6/7/2018							3.4	0.1	2.9
6/10/2018			<0.05						
10/16/2018	<0.05	<0.05		<0.05					
10/17/2018					<0.05	<0.05	2.8	0.074	1.6
10/18/2018			0.081						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-300	MW-303
2/29/2016		
3/1/2016		
3/3/2016	0.11 (J)	3.2
5/2/2016		
5/3/2016		
5/4/2016	<0.05	4
7/5/2016		
7/6/2016		2.6
7/7/2016	<0.05	
7/8/2016		
9/6/2016		
9/7/2016	0.028 (J)	
9/8/2016		3.6
11/7/2016		
11/8/2016	0.025 (J)	5
11/10/2016		
1/9/2017		
1/10/2017	<0.05 (*)	4.2
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017	<0.05	
3/16/2017		3.5
5/15/2017		3.2
5/16/2017	<0.05	
5/18/2017		
10/2/2017		
10/3/2017	0.03 (J)	2.9
10/5/2017		
12/20/2017		2
3/12/2018		
3/13/2018	<0.05	3.4
3/14/2018		
6/5/2018		
6/6/2018	0.024 (J)	
6/7/2018		5.6
6/10/2018		
10/16/2018		
10/17/2018		7.3
10/18/2018	0.022 (J)	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-306 (bg)	MW-307 (bg)	MW-308	MW-305	MW-304
2/29/2016	1	1.4	1 (J)	0.67					
3/1/2016					0.6	1.5			
3/3/2016							84	2.5	160
5/2/2016	0.78	1.1		0.58		0.83			
5/3/2016					0.55				
5/4/2016			0.62				90	1.1	140
7/5/2016	0.65	0.94		0.43	0.53	1.6			
7/6/2016							72		120
7/7/2016								0.71	
7/8/2016			0.4						
9/6/2016	0.7	1	0.45	0.48	0.5	1.6			
9/7/2016							75	0.78	94
9/8/2016									
11/7/2016	0.8	1.2		0.56	0.68	1.5		0.82	
11/8/2016							79		160
11/10/2016			0.44						
1/9/2017	0.74	1.2		0.43	0.56	0.98			
1/10/2017							61	0.58	150
1/11/2017			0.42						
3/13/2017	0.78	1.3		0.48	0.62	0.75			
3/14/2017			0.42						
3/15/2017								0.69	78
3/16/2017							62		
5/15/2017	0.76	1		0.37	0.58	0.83			
5/16/2017							64	0.66	120
5/18/2017			0.38						
10/2/2017	0.78	1.2		0.47	0.62	0.83			
10/3/2017							59	0.68	160
10/5/2017			0.39						
12/20/2017							65		120
3/12/2018	0.88	1.4		0.49	0.59	0.71			
3/13/2018							77	0.65	110
3/14/2018			0.49						
6/5/2018	0.9	1.2		0.49					
6/6/2018					0.59	0.68			
6/7/2018							78	0.6	97
6/10/2018			0.39						
10/16/2018	0.86	1.4		0.42					
10/17/2018					0.54	0.66	60	0.73	130
10/18/2018			0.41						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-300	MW-303
2/29/2016		
3/1/2016		
3/3/2016	1 (J)	57
5/2/2016		
5/3/2016		
5/4/2016	1	60
7/5/2016		
7/6/2016		54
7/7/2016	0.62	
7/8/2016		
9/6/2016		
9/7/2016	0.6	
9/8/2016		68
11/7/2016		
11/8/2016	0.53	84
11/10/2016		
1/9/2017		
1/10/2017	0.51	64
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017	0.53	
3/16/2017		78
5/15/2017		63
5/16/2017	0.48	
5/18/2017		
10/2/2017		
10/3/2017	0.46	43
10/5/2017		
12/20/2017		44
3/12/2018		
3/13/2018	0.46	68
3/14/2018		
6/5/2018		
6/6/2018	0.45	
6/7/2018		89
6/10/2018		
10/16/2018		
10/17/2018		93
10/18/2018	0.48	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-307 (bg)	MW-306 (bg)	MW-300	MW-304	MW-308
2/29/2016	5.3	8.1	5.4	7.4					
3/1/2016					4	5.6			
3/3/2016							8.2	110	43
5/2/2016	4.4	6		6.3	3.6				
5/3/2016						5.1			
5/4/2016			4.5				8.2	120	63
7/5/2016	4.2	5.2		4.8	3.6	4.7			
7/6/2016								130	51
7/7/2016							8.3		
7/8/2016			4.9						
9/6/2016	4.3	5.5	4.3	6	4	4.4			
9/7/2016							8.1	43	57
9/8/2016									
11/7/2016	4.2	5.4		5.7	4.4	4.6			
11/8/2016							8.5	98	47
11/10/2016			4.5						
1/9/2017	5.3	6.1		6.8	4.4	5.3			
1/10/2017							9.1	150	45
1/11/2017			5.3						
3/13/2017	5.2	5.5		6.8	4.1	5.6			
3/14/2017			5.5						
3/15/2017							48	65	
3/16/2017									40
5/15/2017	4.8	4.7		6.1	3.7	5.2			
5/16/2017							8.9	120	39
5/18/2017			5						
10/2/2017	5.5	6.1		6	4.8	5.5			
10/3/2017							8.9	21	20
10/5/2017			5.6						
12/20/2017							8.8	79	63
3/12/2018	5.3	6.1		5.9	4	5.6			
3/13/2018							8.3	84	130
3/14/2018			5.2						
6/5/2018	5.3	5.5		6.5					
6/6/2018					4.1	5.6	8		
6/7/2018								86	120
6/10/2018			5.2						
10/16/2018	5.5	5.1		5.9					
10/17/2018					3.7	5.5		45	70
10/18/2018			5.2				8.1		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-305
2/29/2016		
3/1/2016		
3/3/2016	36	7.9
5/2/2016		
5/3/2016		
5/4/2016	47	7
7/5/2016		
7/6/2016	28	
7/7/2016		7.1
7/8/2016		
9/6/2016		
9/7/2016		6.9
9/8/2016	47	
11/7/2016		8
11/8/2016	150	
11/10/2016		
1/9/2017		
1/10/2017	110	<7.4 (*)
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017		8.1
3/16/2017	200	
5/15/2017	120	
5/16/2017		7.8
5/18/2017		
10/2/2017		
10/3/2017	38	7.1
10/5/2017		
12/20/2017	22	7.6
3/12/2018		
3/13/2018	82	6.9
3/14/2018		
6/5/2018		
6/6/2018		
6/7/2018	170	7.3
6/10/2018		
10/16/2018		
10/17/2018	110	6.8
10/18/2018		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-306 (bg)	MW-307 (bg)	MW-304	MW-305	MW-308
2/29/2016	<0.1	<0.1	<0.1	<0.1					
3/1/2016					<0.1	0.033 (J)			
3/3/2016							0.12	0.035 (J)	0.11
5/2/2016	<0.1	<0.1	<0.1			<0.1			
5/3/2016					<0.1				
5/4/2016				<0.1			0.19	<0.1	0.07 (J)
7/5/2016	<0.1	<0.1	<0.1		<0.1	<0.1			
7/6/2016							0.15		0.07 (J)
7/7/2016								<0.1	
7/8/2016				<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
9/7/2016							0.06 (J)	<0.1	0.06 (J)
9/8/2016									
11/7/2016	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1	
11/8/2016							0.09 (J)		0.06 (J)
11/10/2016				<0.1					
1/9/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
1/10/2017							<0.1	<0.1	0.04 (J)
1/11/2017				<0.1					
3/13/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
3/14/2017				<0.1					
3/15/2017							<0.1	<0.1	
3/16/2017									0.06 (J)
5/15/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
5/16/2017							0.04 (J)	<0.1	0.09 (J)
5/18/2017				<0.1					
10/2/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
10/3/2017							0.07 (J)	<0.1	0.13
10/5/2017				<0.1					
12/20/2017									0.1
3/12/2018	<0.1	<0.1	<0.1		<0.1	<0.1			
3/13/2018							<0.1	<0.1	0.1
3/14/2018				0.12					
6/5/2018	<0.1	<0.1	<0.1						
6/6/2018					<0.1	<0.1			
6/7/2018							<0.1	<0.1	0.14
6/10/2018				<0.1					
10/16/2018	<0.1	<0.1	<0.1						
10/17/2018					<0.1	<0.1	0.06 (J)	<0.1	0.14
10/18/2018				<0.1					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-300	MW-303
2/29/2016		
3/1/2016		
3/3/2016	0.041 (J)	0.15
5/2/2016		
5/3/2016		
5/4/2016	<0.1	0.11
7/5/2016		
7/6/2016		0.13
7/7/2016	<0.1	
7/8/2016		
9/6/2016		
9/7/2016	<0.1	
9/8/2016		0.12
11/7/2016		
11/8/2016	<0.1	0.13
11/10/2016		
1/9/2017		
1/10/2017	<0.1	0.15
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017	<0.1	
3/16/2017		0.16
5/15/2017		0.2
5/16/2017	<0.1	
5/18/2017		
10/2/2017		
10/3/2017	<0.1	0.25
10/5/2017		
12/20/2017		0.25
3/12/2018		
3/13/2018	<0.1	0.26
3/14/2018		
6/5/2018		
6/6/2018	<0.1	
6/7/2018		0.28
6/10/2018		
10/16/2018		
10/17/2018		0.29
10/18/2018	<0.1	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-107 (bg)	MW-101 (bg)	MW-306 (bg)	MW-307 (bg)	MW-308	MW-304	MW-305
2/29/2016	<5	1.6 (J)	<5	<5					
3/1/2016					<5	<5			
3/3/2016							230	550	<5
5/2/2016	15 (o)	2.1 (J)	<5			<5			
5/3/2016					<5				
5/4/2016				<5			280	520	<5
7/5/2016	<5	2 (J)	<5		<5	<5			
7/6/2016							270	510	
7/7/2016									<5
7/8/2016				<5					
9/6/2016	<5	1.8 (J)	<5	<5	<5	3.7 (J)			
9/7/2016							280	340	<5
9/8/2016									
11/7/2016	<5	1.7 (J)	<5		<5	<5			<5
11/8/2016							280	630	
11/10/2016				<5					
1/9/2017	<5	1.5 (J)	2.6 (J)		<5	<5			
1/10/2017							240	580	<5
1/11/2017				<5					
3/13/2017	2.5 (J)	2.2 (J)	<5		<5	<5			
3/14/2017				<5					
3/15/2017								250	<5 (*)
3/16/2017							220		
5/15/2017	<5	1.9 (J)	<5		<5	<5			
5/16/2017							200	410	<5
5/18/2017				<5 (X)					
10/2/2017	<5	3.4 (J)	<5		1.5 (J)	1.7 (J)			
10/3/2017							180	440	<5
10/5/2017				<5					
12/20/2017							170	400	
3/12/2018	<5	2.6 (J)	<5		<5	<5			
3/13/2018							210	460	1.5 (J)
3/14/2018				<5					
6/5/2018	<5	2.6 (J)	<5						
6/6/2018					<5	<5			
6/7/2018							210	420	<5
6/10/2018				1.5 (J)					
10/16/2018	<5	2.8 (J)	<5						
10/17/2018					<5	<5	140	320	<5
10/18/2018				<5					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-300
2/29/2016		
3/1/2016		
3/3/2016	180	<5
5/2/2016		
5/3/2016		
5/4/2016	200	<5
7/5/2016		
7/6/2016	150	
7/7/2016		<5
7/8/2016		
9/6/2016		
9/7/2016		<5
9/8/2016	160	
11/7/2016		
11/8/2016	230	<5
11/10/2016		
1/9/2017		
1/10/2017	190	<5
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017		<5 (*)
3/16/2017	190	
5/15/2017	190	
5/16/2017		<5
5/18/2017		
10/2/2017		
10/3/2017	130	<5
10/5/2017		
12/20/2017	85	
3/12/2018		
3/13/2018	160	<5
3/14/2018		
6/5/2018		
6/6/2018		<5
6/7/2018	280	
6/10/2018		
10/16/2018		
10/17/2018	250	
10/18/2018		<5

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-306 (bg)	MW-307 (bg)	MW-308	MW-305	MW-304
2/29/2016	20	12	20	<5					
3/1/2016					10	<5			
3/3/2016							490	18	1100
5/2/2016	<5	6		<5		36			
5/3/2016					<5				
5/4/2016			6				690	38	1200
7/5/2016	12	<5		14	<5	<5			
7/6/2016							500		870
7/7/2016								<5	
7/8/2016			6						
9/6/2016	36	38	36	30	36	44			
9/7/2016							590	14	650
9/8/2016									
11/7/2016	18	<5		8	<5	30		32	
11/8/2016							530		1100
11/10/2016			16						
1/9/2017	4 (J)	14		<5	<5	12			
1/10/2017							510	32	1300
1/11/2017			38						
3/13/2017	6	8		<5	22	20			
3/14/2017			<5						
3/15/2017								20	500
3/16/2017							420		
5/15/2017	<5	<5		<5	6	4 (J)			
5/16/2017							430	18	850
5/18/2017			10						
10/2/2017	<5	6		<5	16	24			
10/3/2017							320	36	760
10/5/2017			<5						
12/20/2017							410		830
3/12/2018	18	<5		14	<5	<5			
3/13/2018							590	12	880
3/14/2018			8						
6/5/2018	10	14		<5					
6/6/2018					20	16			
6/7/2018							530	<5	670
6/10/2018			8						
10/16/2018	32	6		12					
10/17/2018					44	44	390	68	770
10/18/2018			28						

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 10:17 AM View: PL's Interwell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-300	MW-303
2/29/2016		
3/1/2016		
3/3/2016	18	420
5/2/2016		
5/3/2016		
5/4/2016	28	450
7/5/2016		
7/6/2016		280
7/7/2016	<5	
7/8/2016		
9/6/2016		
9/7/2016	8	
9/8/2016		410
11/7/2016		
11/8/2016	24	580
11/10/2016		
1/9/2017		
1/10/2017	30	530
1/11/2017		
3/13/2017		
3/14/2017		
3/15/2017	32	
3/16/2017		650
5/15/2017		500
5/16/2017	<5	
5/18/2017		
10/2/2017		
10/3/2017	34	310
10/5/2017		
12/20/2017		150
3/12/2018		
3/13/2018	26	450
3/14/2018		
6/5/2018		
6/6/2018	64	
6/7/2018		620
6/10/2018		
10/16/2018		
10/17/2018		700
10/18/2018	12	

Intrawell Prediction Limit Summary - 300 Series All Results (No Significant Results)

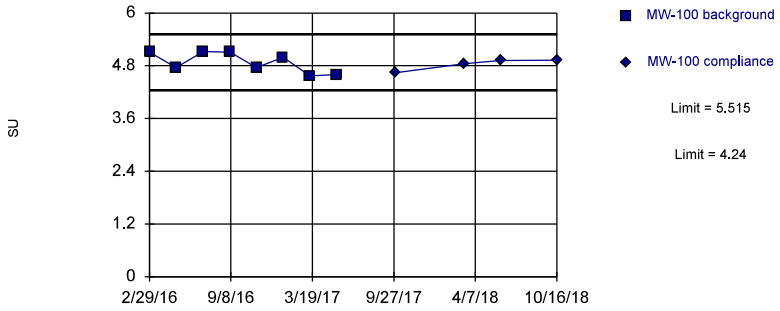
Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 10:35 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj	Transform	Alpha	Method
Field pH (SU)	MW-100	5.515	4.24	10/16/2018	4.93	No	8	4.878	0.2326	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-101	5.779	4.151	10/18/2018	4.97	No	8	4.965	0.297	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-107	5.726	4.169	10/16/2018	4.98	No	8	4.948	0.2841	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	10/16/2018	4.81	No	8	n/a	n/a	0	n/a	n/a	0.04288	NP Intra (normality) ...
Field pH (SU)	MW-306	5.716	4.409	10/17/2018	4.99	No	8	5.063	0.2384	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-307	6.977	4.934	10/17/2018	5.54	No	8	5.956	0.3728	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-300	5.47	4.23	10/18/2018	4.71	No	8	4.85	0.2264	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-303	7.387	5.656	10/17/2018	6.58	No	8	6.521	0.3159	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-304	6.101	4.415	10/17/2018	5.94	No	8	5.258	0.3078	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-305	5.654	4.273	10/17/2018	4.87	No	8	4.964	0.252	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-308	6.834	5.582	10/17/2018	6.18	No	8	6.208	0.2284	0	None	No	0.000752	Param Intra 1 of 2

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.878, Std. Dev.=0.2326, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

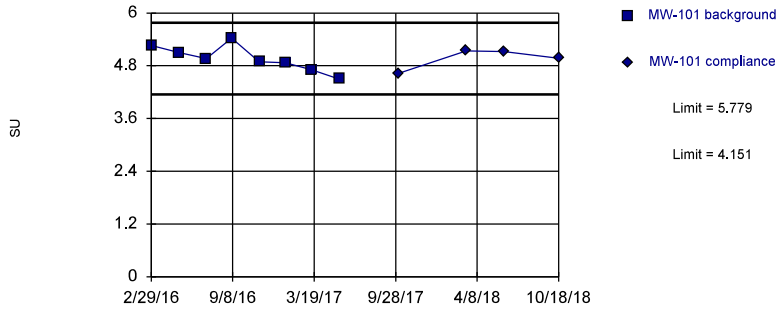
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.965, Std. Dev.=0.297, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9876, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

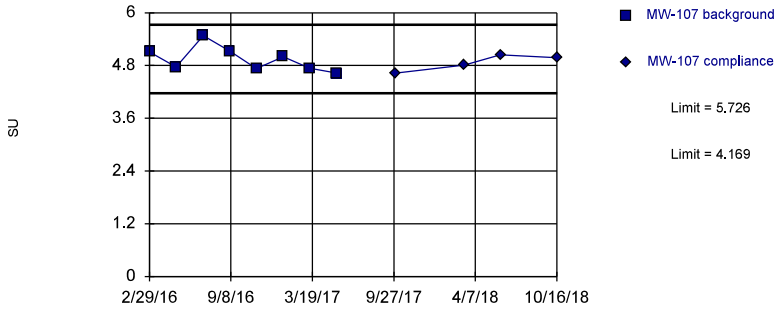
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.948, Std. Dev.=0.2841, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9051, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

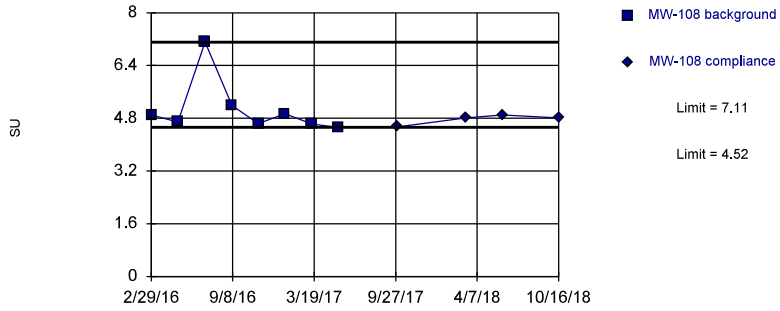
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2).

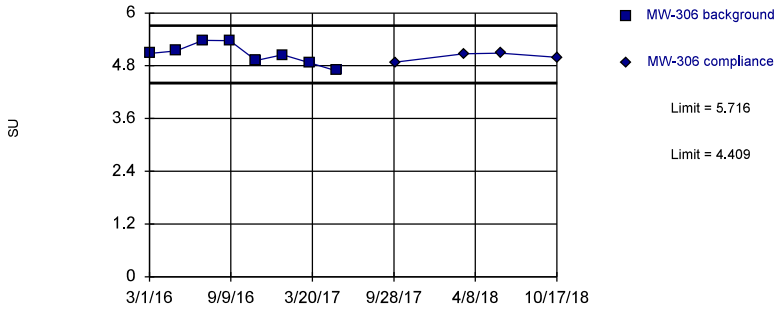
Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.063, Std. Dev.=0.2384, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

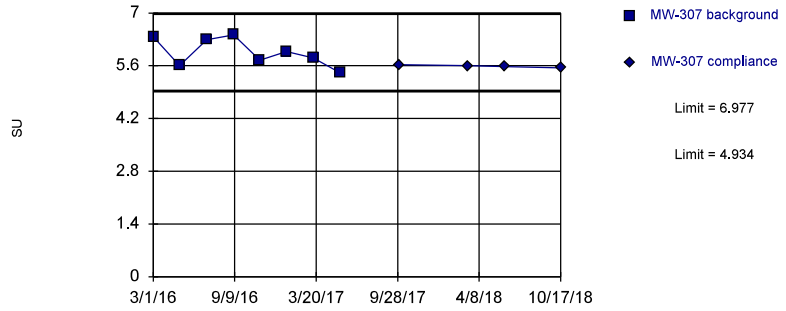
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.956, Std. Dev.=0.3728, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

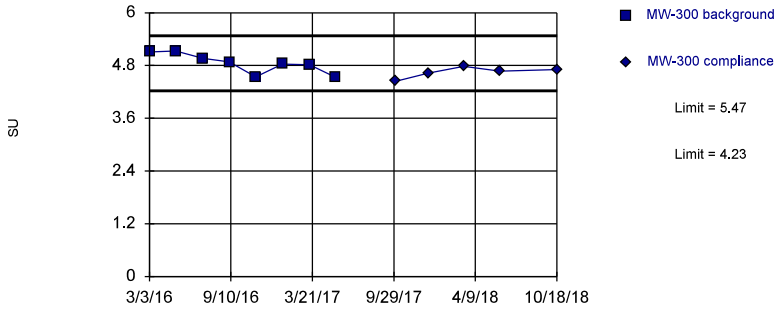
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.85, Std. Dev.=0.2264, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9077, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:18 AM View: PL's Intrawell 300 Series

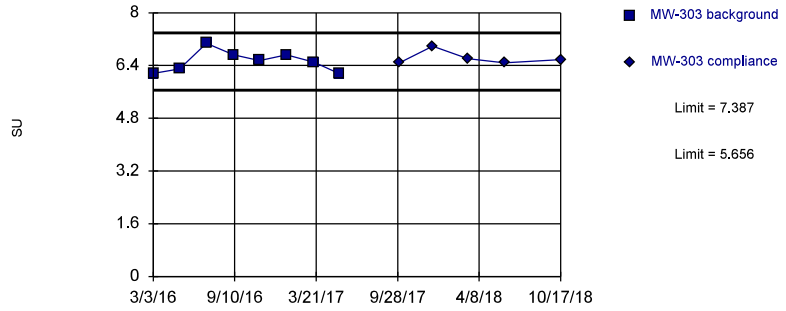
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.521, Std. Dev.=0.3159, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

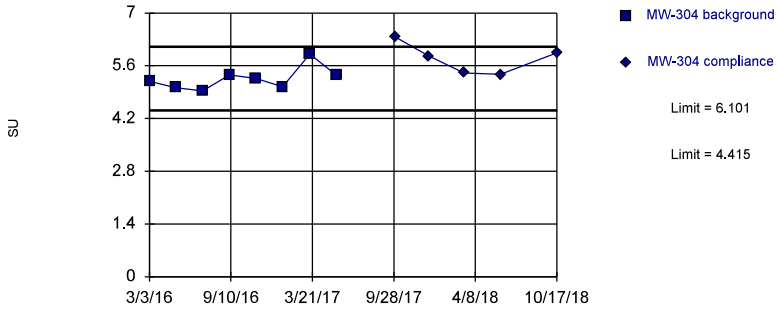
Constituent: Field pH Analysis Run 2/6/2019 10:19 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.258, Std. Dev.=0.3078, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8727, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:19 AM View: PL's Intrawell 300 Series

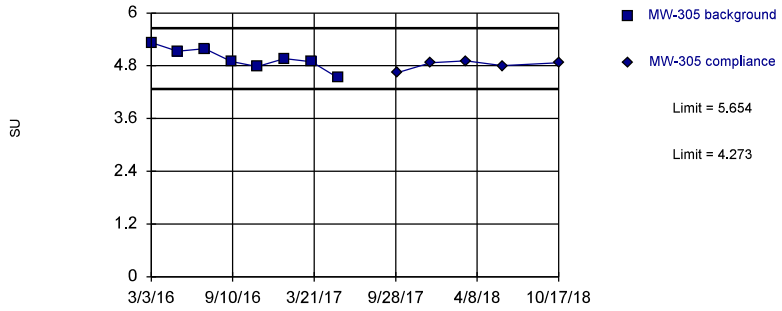
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.964, Std. Dev.=0.252, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9775, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:19 AM View: PL's Intrawell 300 Series

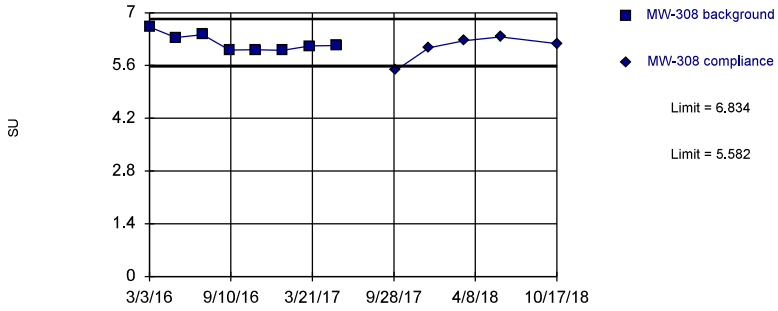
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.208, Std. Dev.=0.2284, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8656, critical = 0.749. Kappa = 2.74 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Field pH Analysis Run 2/6/2019 10:19 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100	MW-100
2/29/2016	5.11	
5/2/2016	4.76	
7/5/2016	5.12	
9/6/2016	5.11	
11/7/2016	4.76	
1/9/2017	4.99	
3/13/2017	4.57	
5/15/2017	4.6	
10/2/2017		4.64
3/12/2018		4.85
6/5/2018		4.92
10/16/2018		4.93

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-101	MW-101
2/29/2016	5.26	
5/4/2016	5.1	
7/8/2016	4.96	
9/6/2016	5.43	
11/10/2016	4.89	
1/11/2017	4.87	
3/14/2017	4.71	
5/18/2017	4.5	
10/5/2017		4.63
3/14/2018		5.14
6/10/2018		5.12
10/18/2018		4.97

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107	MW-107
2/29/2016	5.11	
5/2/2016	4.77	
7/5/2016	5.48	
9/6/2016	5.12	
11/7/2016	4.73	
1/9/2017	5	
3/13/2017	4.74	
5/15/2017	4.63	
10/2/2017		4.63
3/12/2018		4.81
6/5/2018		5.04
10/16/2018		4.98

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-108	MW-108
2/29/2016	4.9	
5/2/2016	4.69	
7/5/2016	7.11	
9/6/2016	5.19	
11/7/2016	4.64	
1/9/2017	4.94	
3/13/2017	4.63	
5/15/2017	4.52	
10/2/2017		4.54
3/12/2018		4.81
6/5/2018		4.9
10/16/2018		4.81

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-306	MW-306
3/1/2016	5.08	
5/3/2016	5.14	
7/5/2016	5.38	
9/6/2016	5.37	
11/7/2016	4.92	
1/9/2017	5.05	
3/13/2017	4.87	
5/15/2017	4.69	
10/2/2017		4.88
3/12/2018		5.07
6/6/2018		5.09
10/17/2018		4.99

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307	MW-307
3/1/2016	6.37	
5/2/2016	5.605 (D)	
7/5/2016	6.29	
9/6/2016	6.42	
11/7/2016	5.75	
1/9/2017	5.98	
3/13/2017	5.81	
5/15/2017	5.42	
10/2/2017		5.63
3/12/2018		5.6
6/6/2018		5.58
10/17/2018		5.54

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-300	MW-300
3/3/2016	5.11	
5/4/2016	5.13	
7/7/2016	4.96	
9/7/2016	4.88	
11/8/2016	4.54	
1/10/2017	4.83	
3/15/2017	4.82	
5/16/2017	4.53	
10/3/2017		4.44
12/20/2017		4.63
3/13/2018		4.78
6/6/2018		4.67
10/18/2018		4.71

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-303
3/3/2016	6.16	
5/4/2016	6.3	
7/6/2016	7.07	
9/8/2016	6.72	
11/8/2016	6.55	
1/10/2017	6.72	
3/16/2017	6.5	
5/15/2017	6.15	
10/3/2017		6.48
12/20/2017		6.99 (R)
3/13/2018		6.61
6/7/2018		6.48
10/17/2018		6.58

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-304	MW-304
3/3/2016	5.185 (D)	
5/4/2016	5.02 (D)	
7/6/2016	4.93	
9/7/2016	5.36	
11/8/2016	5.26	
1/10/2017	5.04	
3/15/2017	5.91	
5/16/2017	5.36	
10/3/2017		6.36
12/20/2017		5.86
3/13/2018		5.41
6/7/2018		5.37
10/17/2018		5.94

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-305	MW-305
3/3/2016	5.33	
5/4/2016	5.13	
7/7/2016	5.19	
9/7/2016	4.9	
11/7/2016	4.78	
1/10/2017	4.96	
3/15/2017	4.89	
5/16/2017	4.53	
10/3/2017		4.64
12/20/2017		4.87
3/13/2018		4.91
6/7/2018		4.8
10/17/2018		4.87

Prediction Limit

Constituent: Field pH (SU) Analysis Run 2/6/2019 10:35 AM View: PL's Intrawell 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-308	MW-308
3/3/2016	6.62 (D)	
5/4/2016	6.345 (D)	
7/6/2016	6.42	
9/7/2016	6.01	
11/8/2016	6.02	
1/10/2017	6	
3/16/2017	6.12	
5/16/2017	6.13	
10/3/2017		5.47
12/20/2017		6.07 (R)
3/13/2018		6.26
6/7/2018		6.36
10/17/2018		6.18

Confidence Intervals - 100, 200 & 300 Series

100 Series

Confidence Interval Summary Table - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**MW-104**	**0.02336**	**0.01427**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-103**	**7.526**	**5.511**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-104**	**19.15**	**11.78**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-110**	**8.01**	**5.999**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Mercury (mg/L)	**MW-110**	**0.006789**	**0.0034**	**0.002**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-102	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-103	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-104	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-105	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-106	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-109	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-110	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-102	0.0013	0.0005	0.01	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-103	0.0013	0.00051	0.01	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-104	0.009227	0.004463	0.01	No	11	0	No	0.01	Param.
Arsenic (mg/L)	MW-105	0.003984	0.003453	0.01	No	11	0	No	0.01	Param.
Arsenic (mg/L)	MW-106	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-109	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-110	0.0013	0.00047	0.01	No	11	54.55	No	0.006	NP (normality)
Barium (mg/L)	MW-102	0.01081	0.008424	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-103	0.06471	0.05329	2	No	11	0	ln(x)	0.01	Param.
Barium (mg/L)	MW-104	0.02637	0.01944	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-105	0.04782	0.03691	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-106	0.015	0.0089	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	MW-109	0.02118	0.01773	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-110	0.0508	0.03902	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	MW-102	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-103	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-104	0.001348	0.0009249	0.004	No	11	0	No	0.01	Param.
Beryllium (mg/L)	MW-105	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-106	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-109	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-110	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-102	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-103	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-104	0.0025	0.00044	0.005	No	11	63.64	No	0.006	NP (normality)
Cadmium (mg/L)	MW-105	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-106	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-109	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-110	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-102	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-103	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-104	0.002376	0.001788	0.1	No	11	9.091	x^3	0.01	Param.
Chromium (mg/L)	MW-105	0.002633	0.002058	0.1	No	11	9.091	No	0.01	Param.
Chromium (mg/L)	MW-106	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-109	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-110	0.0025	0.0025	0.1	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-102	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-103	0.0025	0.00044	0.006	No	11	72.73	No	0.006	NP (normality)
Cobalt (mg/L)	**MW-104**	**0.02336**	**0.01427**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-105	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-106	0.001	0.0004	0.006	No	11	9.091	No	0.006	NP (normality)
Cobalt (mg/L)	MW-109	0.004709	0.003357	0.006	No	11	0	x^2	0.01	Param.
Cobalt (mg/L)	MW-110	0.012	0.0041	0.006	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-102	1.928	1.156	5	No	11	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-103**	**7.526**	**5.511**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-104**	**19.15**	**11.78**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-105	4.511	2.517	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-106	1.17	0.338	5	No	11	9.091	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-109	2.27	1.663	5	No	11	0	No	0.01	Param.

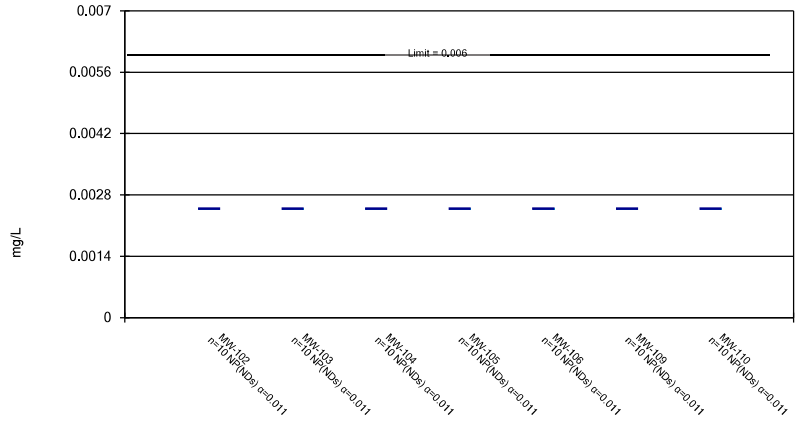
Confidence Interval Summary Table - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 2:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	**MW-110**	**8.01**	**5.999**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-102	0.1	0.1	4	No	12	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-103	0.1	0.037	4	No	12	91.67	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-104	0.3895	0.2705	4	No	13	0	No	0.01	Param.
Fluoride (mg/L)	MW-105	0.1	0.041	4	No	12	83.33	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-106	0.1	0.1	4	No	12	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-109	0.1	0.1	4	No	12	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-110	0.1	0.04	4	No	12	75	No	0.01	NP (normality)
Lead (mg/L)	MW-102	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-103	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-104	0.002573	0.001881	0.015	No	11	0	No	0.01	Param.
Lead (mg/L)	MW-105	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-106	0.0013	0.00039	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	MW-109	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-110	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-102	0.005	0.0012	0.04	No	11	90.91	No	0.006	NP (NDs)
Lithium (mg/L)	MW-103	0.005	0.0015	0.04	No	11	63.64	No	0.006	NP (normality)
Lithium (mg/L)	MW-104	0.04254	0.02419	0.04	No	11	0	No	0.01	Param.
Lithium (mg/L)	MW-105	0.005	0.005	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-106	0.005	0.0012	0.04	No	11	72.73	No	0.006	NP (normality)
Lithium (mg/L)	MW-109	0.007094	0.004724	0.04	No	11	0	No	0.01	Param.
Lithium (mg/L)	MW-110	0.01062	0.006784	0.04	No	11	0	No	0.01	Param.
Mercury (mg/L)	MW-102	0.0002	0.000094	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	MW-103	0.0002	0.00012	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-104	0.001694	0.0007898	0.002	No	11	0	No	0.01	Param.
Mercury (mg/L)	MW-105	0.0002	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	MW-106	0.0002	0.00008	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-109	0.0002	0.000097	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	**MW-110**	**0.006789**	**0.0034**	**0.002**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	MW-102	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-103	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-104	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-105	0.0054	0.0032	0.1	No	11	0	No	0.006	NP (normality)
Molybdenum (mg/L)	MW-106	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-109	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-110	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-102	0.0013	0.00028	0.05	No	11	72.73	No	0.006	NP (normality)
Selenium (mg/L)	MW-103	0.003208	0.002373	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-104	0.01528	0.005084	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-105	0.0013	0.00026	0.05	No	11	54.55	No	0.006	NP (normality)
Selenium (mg/L)	MW-106	0.0013	0.0013	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-109	0.0013	0.0013	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-110	0.00366	0.003049	0.05	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-102	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-103	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-104	0.0003632	0.0002514	0.002	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-105	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-106	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-109	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-110	0.0002923	0.0002223	0.002	No	11	0	No	0.01	Param.

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

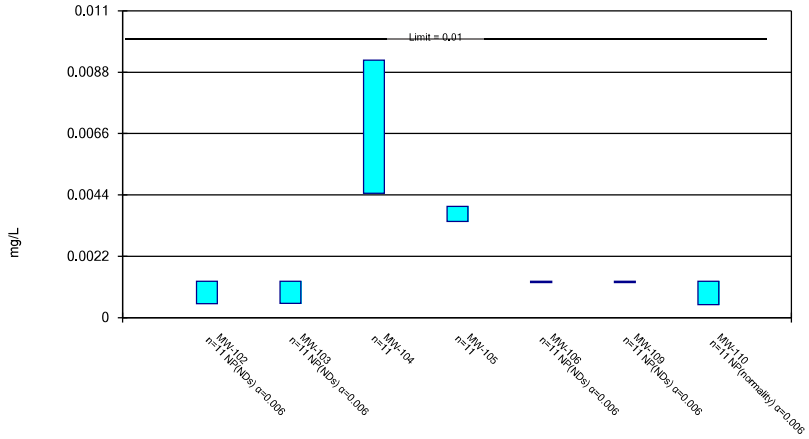


Constituent: Antimony Analysis Run 2/6/2019 2:23 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

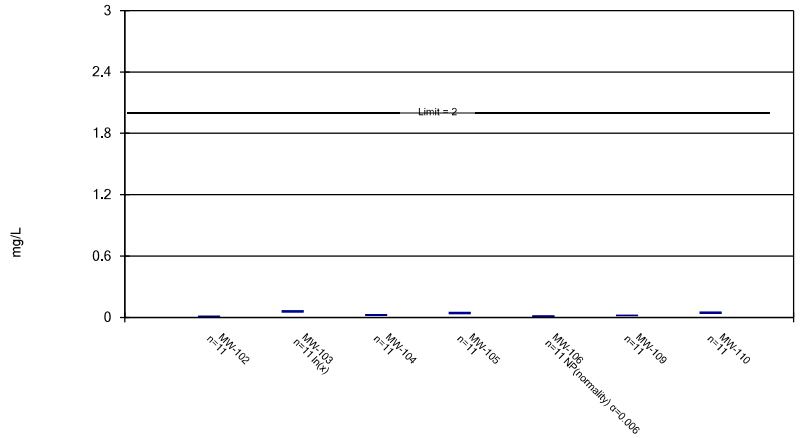


Constituent: Arsenic Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

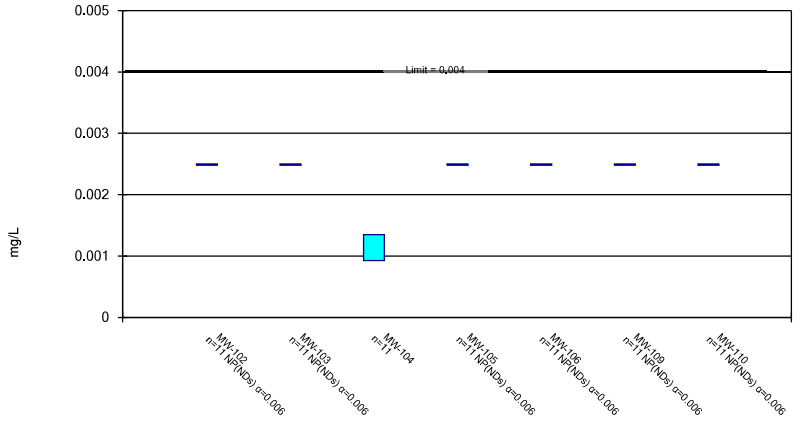


Constituent: Barium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

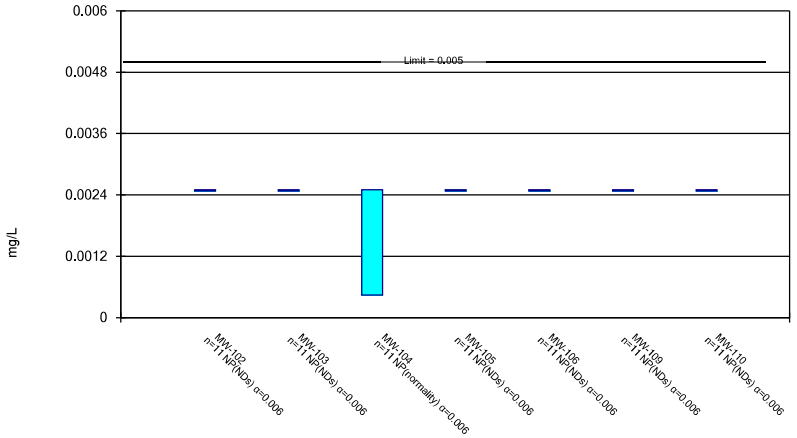
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

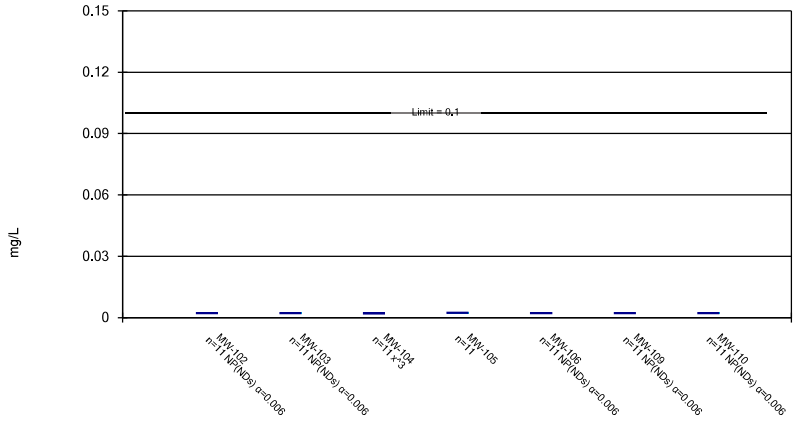


Constituent: Cadmium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

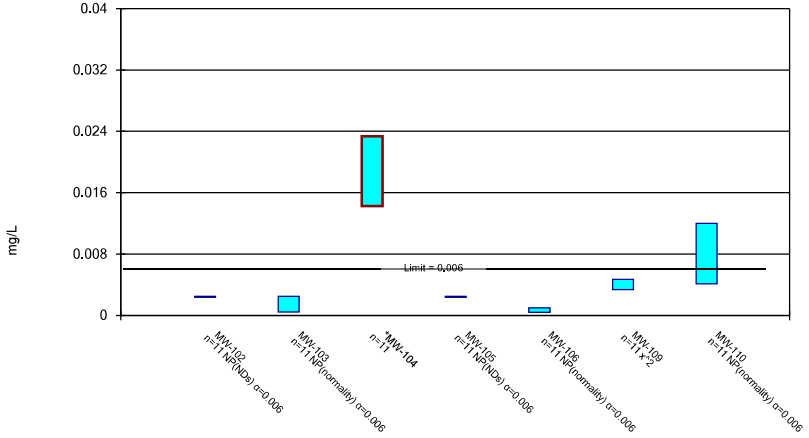


Constituent: Chromium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

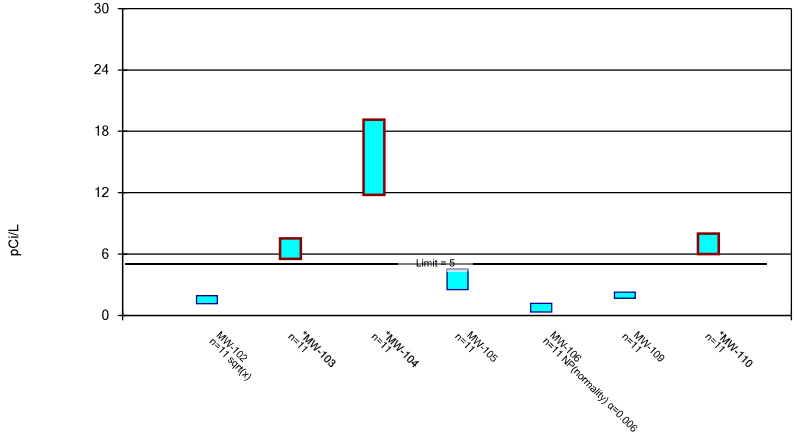


Constituent: Cobalt Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

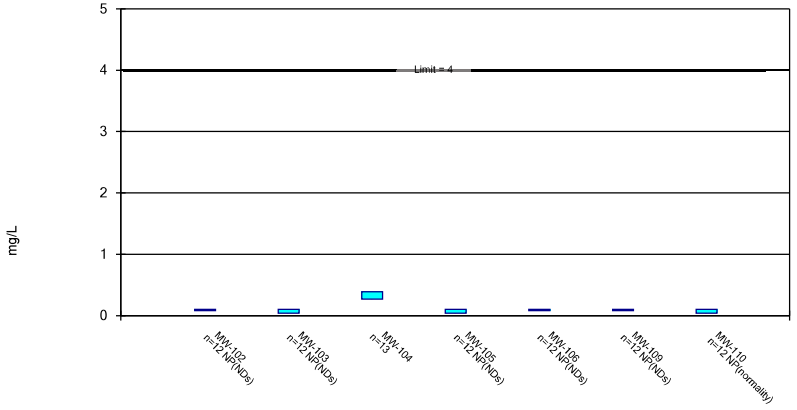


Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 10
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



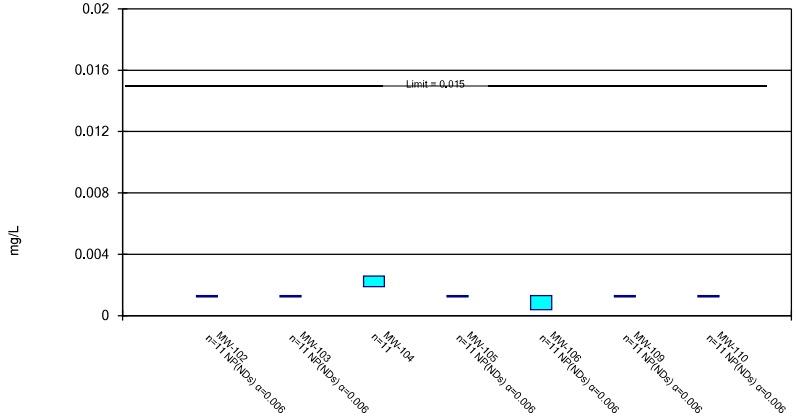
Constituent: Fluoride Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



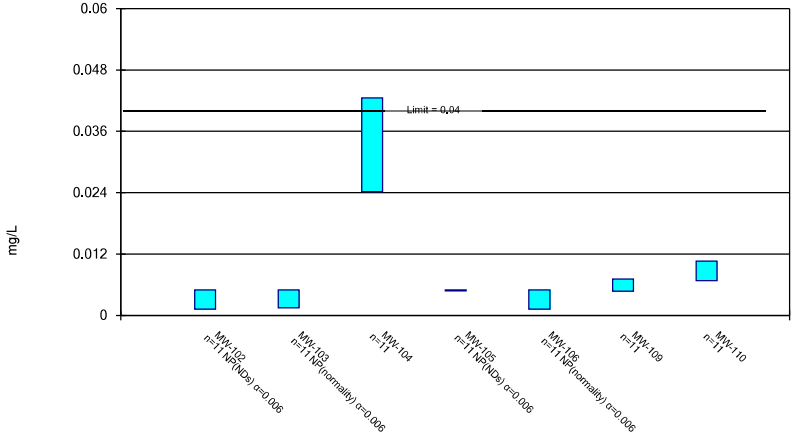
Constituent: Lead Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



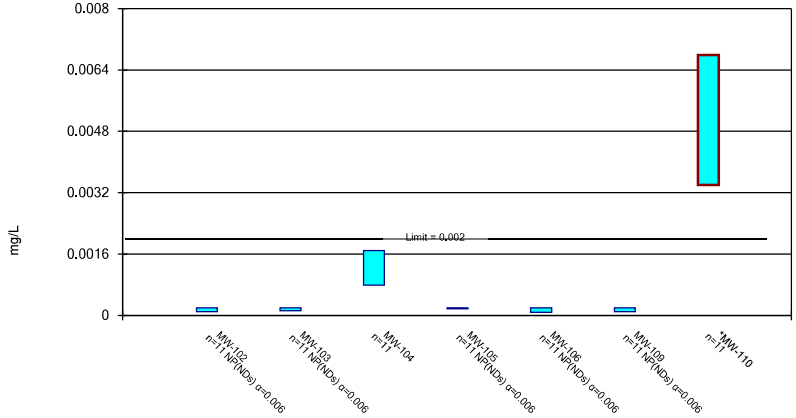
Constituent: Lithium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

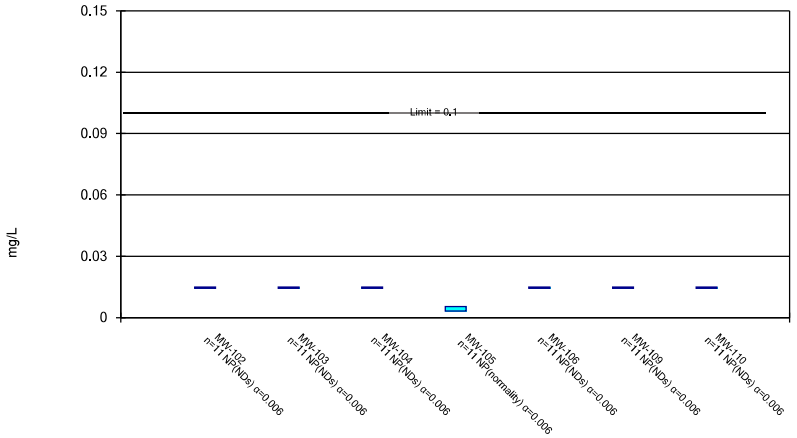


Constituent: Mercury Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

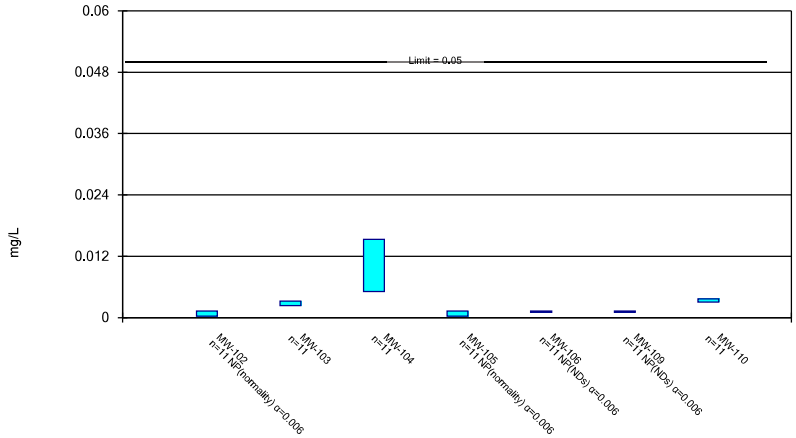
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

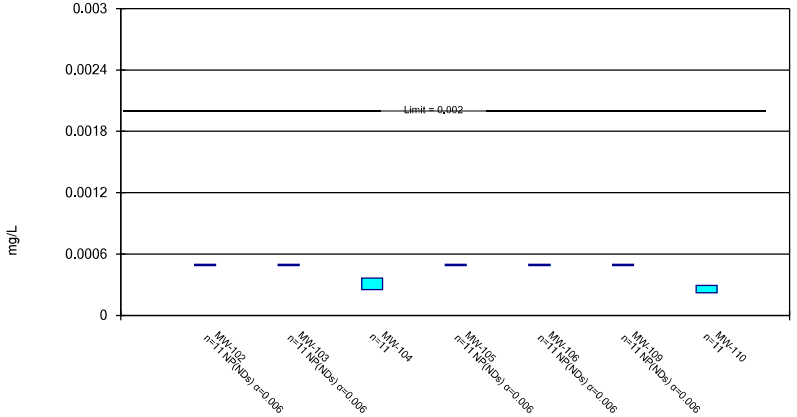
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 2/6/2019 2:24 PM View: Confidence Intervals - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

200 Series

Confidence Interval Summary Table - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 3:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**MW-204**	**0.02003**	**0.01579**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-200**	**20.76**	**10.39**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-201**	**23.1**	**8.969**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-203**	**6.89**	**5.561**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-204**	**16.2**	**12.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-206**	**35.47**	**19.71**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 200 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 3:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-200	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-201	0.0025	0.001	0.006	No	11	81.82	No	0.006	NP (NDs)
Antimony (mg/L)	MW-202	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-203	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-204	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-205	0.0025	0.0025	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-206	0.0025	0.0011	0.006	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-200	0.004196	0.001167	0.01	No	11	9.091	No	0.01	Param.
Arsenic (mg/L)	MW-201	0.006725	0.001066	0.01	No	11	9.091	No	0.01	Param.
Arsenic (mg/L)	MW-202	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-203	0.0013	0.00053	0.01	No	11	36.36	No	0.006	NP (normality)
Arsenic (mg/L)	MW-204	0.006608	0.003247	0.01	No	11	0	No	0.01	Param.
Arsenic (mg/L)	MW-205	0.0013	0.00051	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-206	0.01471	0.004257	0.01	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-200	0.07412	0.04716	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-201	0.08015	0.03894	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-202	0.03277	0.01371	2	No	11	0	ln(x)	0.01	Param.
Barium (mg/L)	MW-203	0.04413	0.03859	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-204	0.02656	0.02453	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-205	0.02274	0.005666	2	No	11	0	ln(x)	0.01	Param.
Barium (mg/L)	MW-206	0.1248	0.08393	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	MW-200	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-201	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-202	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-203	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-204	0.0006868	0.0005695	0.004	No	11	0	No	0.01	Param.
Beryllium (mg/L)	MW-205	0.0025	0.0025	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-206	0.0025	0.00042	0.004	No	11	72.73	No	0.006	NP (normality)
Cadmium (mg/L)	MW-200	0.0025	0.00039	0.005	No	10	90	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-201	0.015	0.0021	0.005	No	10	0	No	0.011	NP (normality)
Cadmium (mg/L)	MW-202	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-203	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-204	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-205	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-206	0.003003	0.001703	0.005	No	11	0	No	0.01	Param.
Chromium (mg/L)	MW-200	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-201	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-202	0.0025	0.0013	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	MW-203	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-204	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-205	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-206	0.0025	0.0025	0.1	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	MW-200	0.002537	0.001139	0.006	No	11	18.18	No	0.01	Param.
Cobalt (mg/L)	MW-201	0.003868	0.001605	0.006	No	11	0	No	0.01	Param.
Cobalt (mg/L)	MW-202	0.001354	0.0007373	0.006	No	11	0	No	0.01	Param.
Cobalt (mg/L)	MW-203	0.003383	0.002581	0.006	No	11	0	No	0.01	Param.
Cobalt (mg/L)	**MW-204**	**0.02003**	**0.01579**	**0.006**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-205	0.0023	0.00099	0.006	No	11	72.73	No	0.006	NP (normality)
Cobalt (mg/L)	MW-206	0.005714	0.00305	0.006	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-200**	**20.76**	**10.39**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-201**	**23.1**	**8.969**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-202	2.065	0.9882	5	No	11	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-203**	**6.89**	**5.561**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-204**	**16.2**	**12.3**	**5**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	MW-205	2.336	0.4206	5	No	11	9.091	ln(x)	0.01	Param.

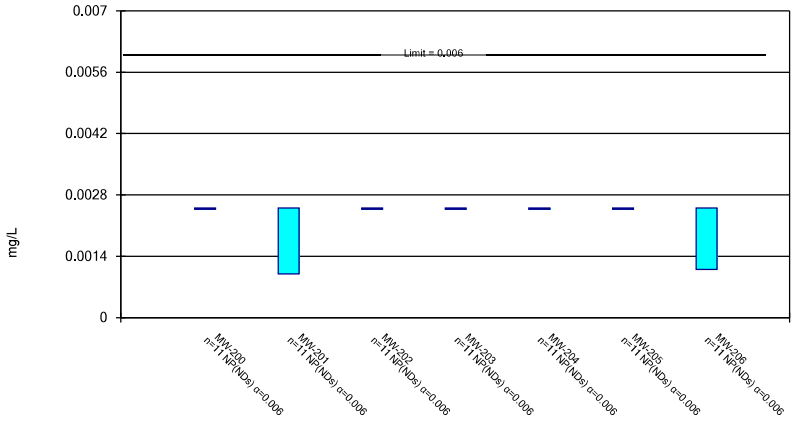
Confidence Interval Summary Table - 200 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 3:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	**MW-206**	**35.47**	**19.71**	**5**	**Yes**	**11**	**0**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-200	0.09523	0.0561	4	No	12	8.333	No	0.01	Param.
Fluoride (mg/L)	MW-201	0.8311	0.5581	4	No	13	0	No	0.01	Param.
Fluoride (mg/L)	MW-202	0.1	0.042	4	No	12	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	MW-203	0.1	0.04	4	No	12	16.67	No	0.01	NP (normality)
Fluoride (mg/L)	MW-204	0.2853	0.2362	4	No	13	0	No	0.01	Param.
Fluoride (mg/L)	MW-205	0.1	0.07	4	No	12	75	No	0.01	NP (normality)
Fluoride (mg/L)	MW-206	0.08935	0.04818	4	No	13	0	No	0.01	Param.
Lead (mg/L)	MW-200	0.00165	0.0008374	0.015	No	11	18.18	No	0.01	Param.
Lead (mg/L)	MW-201	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-202	0.0013	0.00037	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	MW-203	0.0013	0.0013	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-204	0.002277	0.001452	0.015	No	11	9.091	No	0.01	Param.
Lead (mg/L)	MW-205	0.0013	0.0004	0.015	No	11	72.73	No	0.006	NP (normality)
Lead (mg/L)	MW-206	0.01021	0.005213	0.015	No	11	0	No	0.01	Param.
Lithium (mg/L)	MW-200	0.005	0.0024	0.04	No	11	81.82	No	0.006	NP (NDs)
Lithium (mg/L)	MW-201	0.0086	0.0042	0.04	No	11	18.18	No	0.006	NP (normality)
Lithium (mg/L)	MW-202	0.005	0.0013	0.04	No	11	81.82	No	0.006	NP (NDs)
Lithium (mg/L)	MW-203	0.005	0.0019	0.04	No	11	90.91	No	0.006	NP (NDs)
Lithium (mg/L)	MW-204	0.005	0.0015	0.04	No	11	72.73	No	0.006	NP (normality)
Lithium (mg/L)	MW-205	0.005	0.0029	0.04	No	11	90.91	No	0.006	NP (NDs)
Lithium (mg/L)	MW-206	0.005	0.0012	0.04	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	MW-200	0.002707	0.001511	0.002	No	11	0	No	0.01	Param.
Mercury (mg/L)	MW-201	0.0026	0.000082	0.002	No	11	0	No	0.006	NP (normality)
Mercury (mg/L)	MW-202	0.00028	0.000087	0.002	No	11	63.64	No	0.006	NP (normality)
Mercury (mg/L)	MW-203	0.0002	0.000074	0.002	No	11	63.64	No	0.006	NP (normality)
Mercury (mg/L)	MW-204	0.0002	0.00013	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-205	0.0002	0.000096	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	MW-206	0.000688	0.0002047	0.002	No	11	0	No	0.01	Param.
Molybdenum (mg/L)	MW-200	0.015	0.0078	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-201	0.015	0.0015	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-202	0.015	0.0016	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-203	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-204	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-205	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-206	0.015	0.00092	0.1	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	MW-200	0.01613	0.007538	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-201	0.01532	0.007062	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-202	0.0013	0.00029	0.05	No	11	45.45	No	0.006	NP (normality)
Selenium (mg/L)	MW-203	0.00206	0.001038	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-204	0.00533	0.003361	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-205	0.0021	0.00035	0.05	No	11	63.64	No	0.006	NP (normality)
Selenium (mg/L)	MW-206	0.02085	0.01496	0.05	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-200	0.0005197	0.0002173	0.002	No	11	18.18	No	0.01	Param.
Thallium (mg/L)	MW-201	0.0005086	0.000266	0.002	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-202	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-203	0.0005	0.000085	0.002	No	11	36.36	No	0.006	NP (normality)
Thallium (mg/L)	MW-204	0.0003643	0.0003175	0.002	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-205	0.0005	0.00009	0.002	No	11	81.82	No	0.006	NP (NDs)
Thallium (mg/L)	MW-206	0.0009306	0.0005657	0.002	No	11	0	No	0.01	Param.

Non-Parametric Confidence Interval

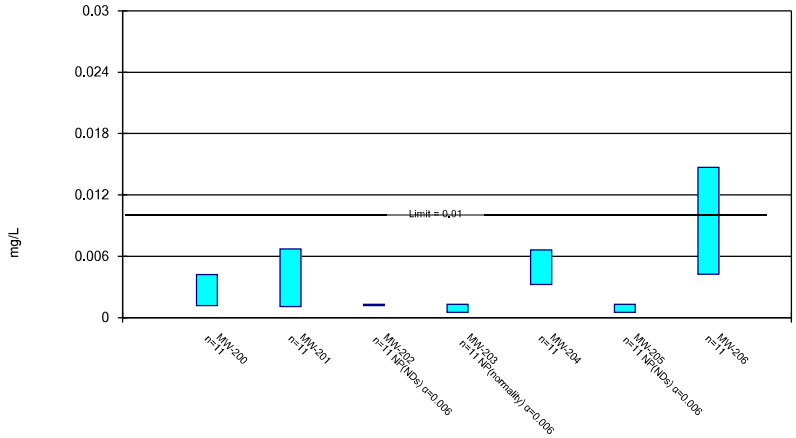
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

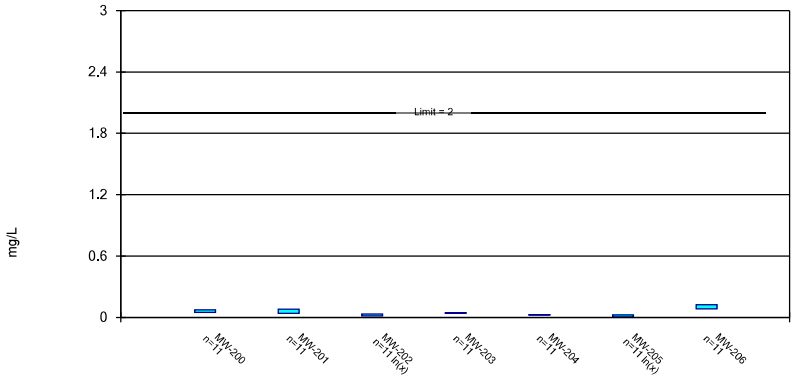
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric Confidence Interval

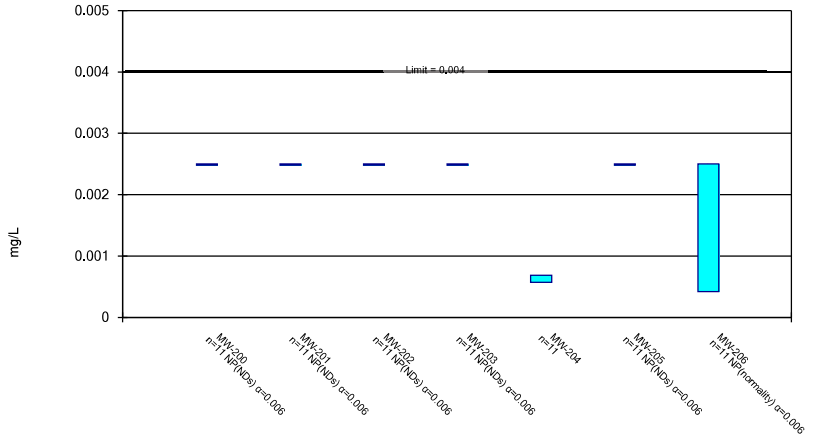
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

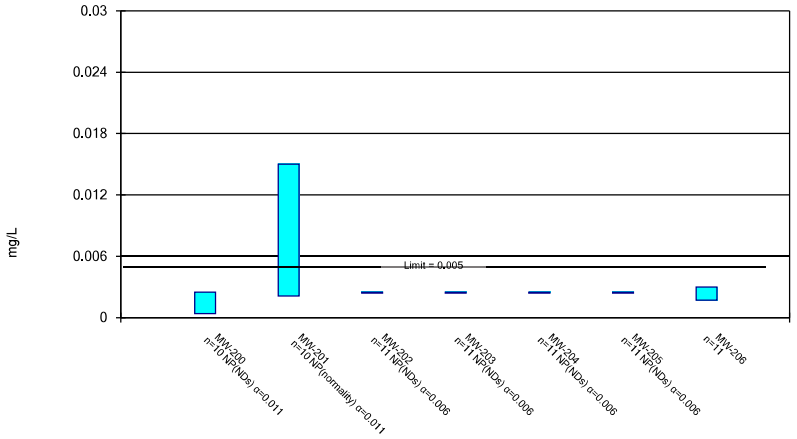


Constituent: Beryllium Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

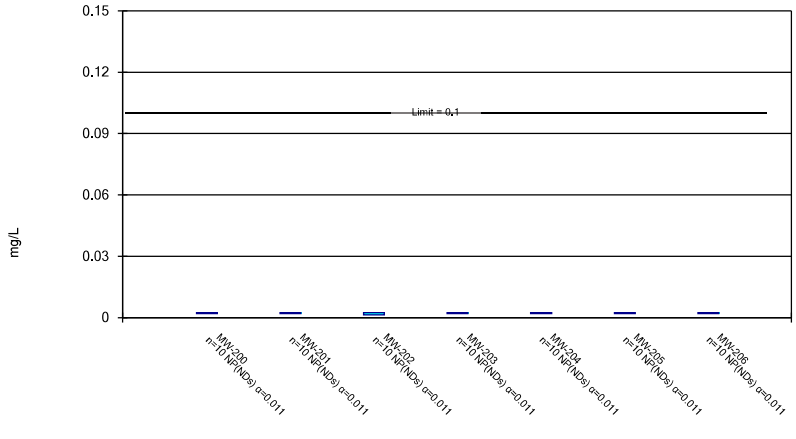


Constituent: Cadmium Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

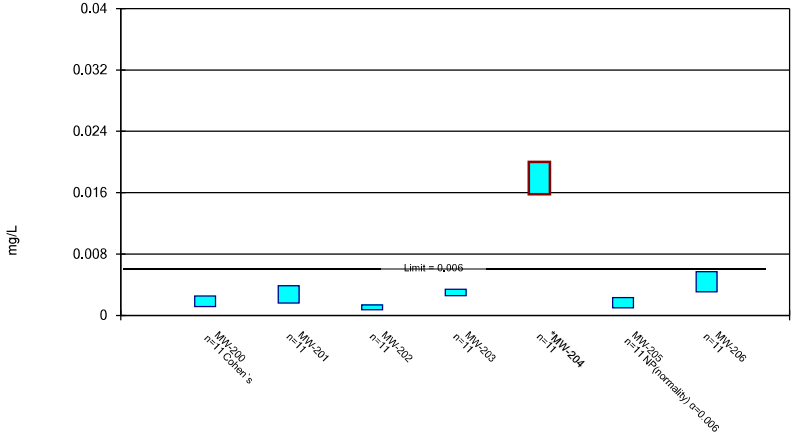


Constituent: Chromium Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

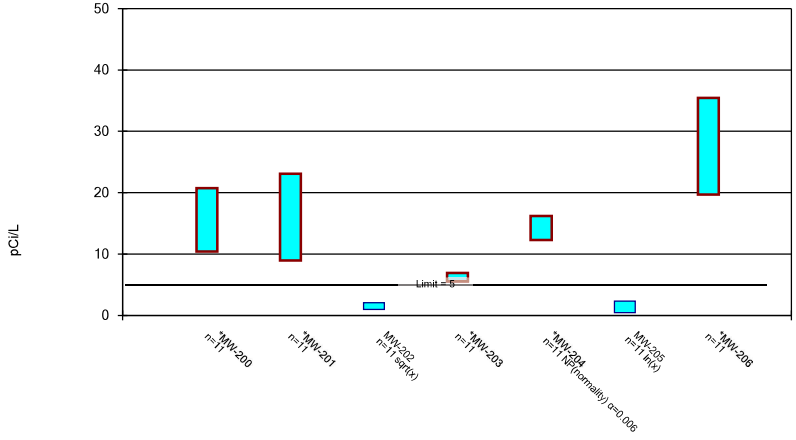


Constituent: Cobalt Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

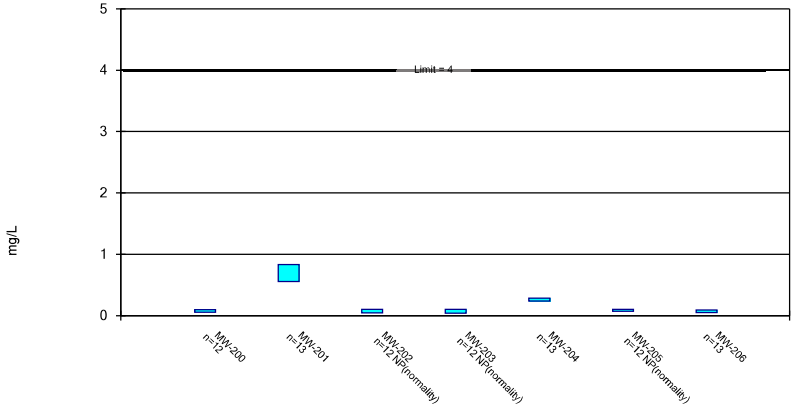
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 3:34 PM View: Confidence Intervals - 20
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



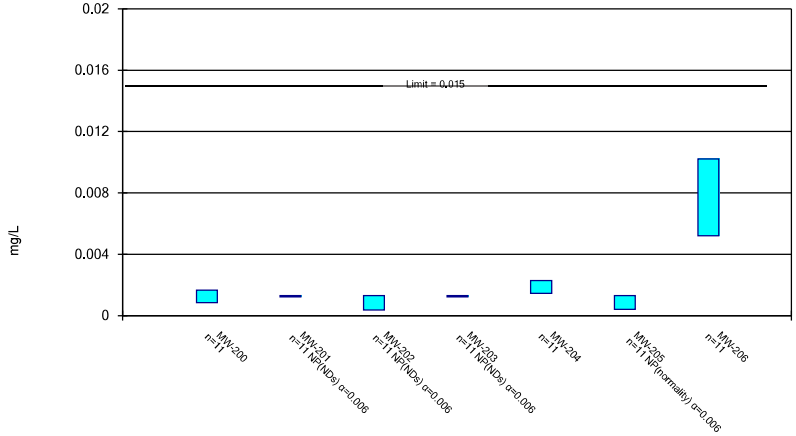
Constituent: Fluoride Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



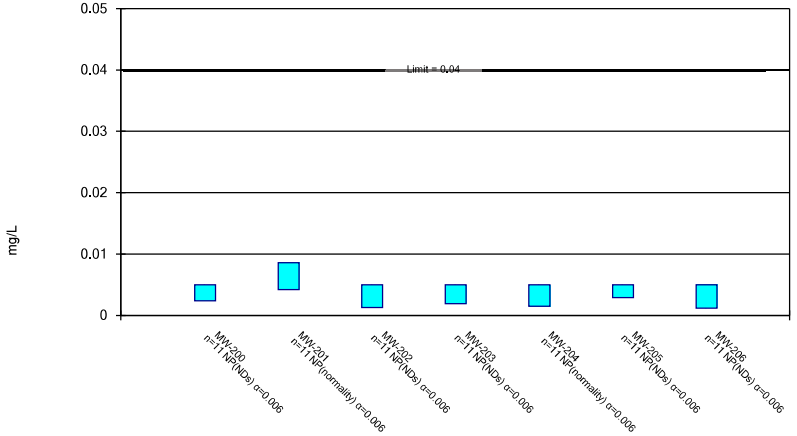
Constituent: Lead Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



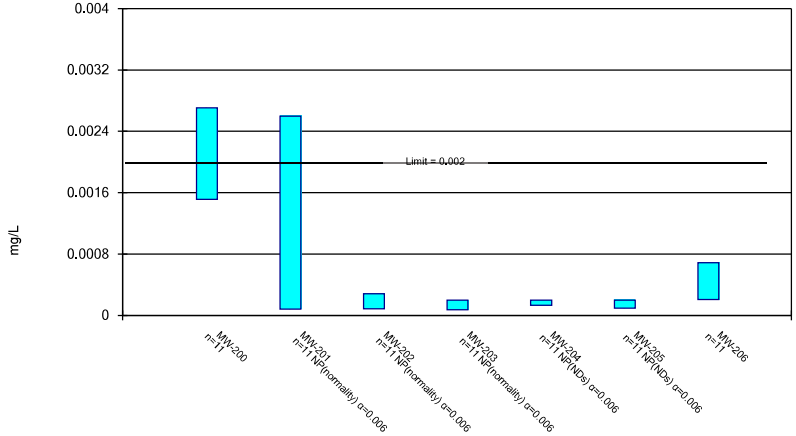
Constituent: Lithium Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

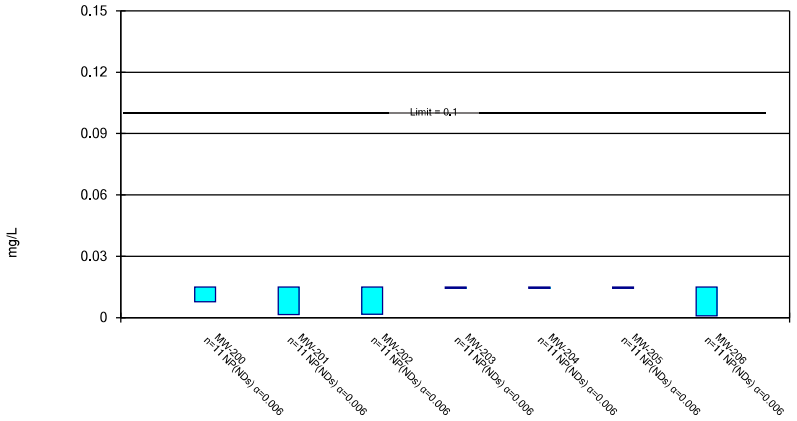


Constituent: Mercury Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

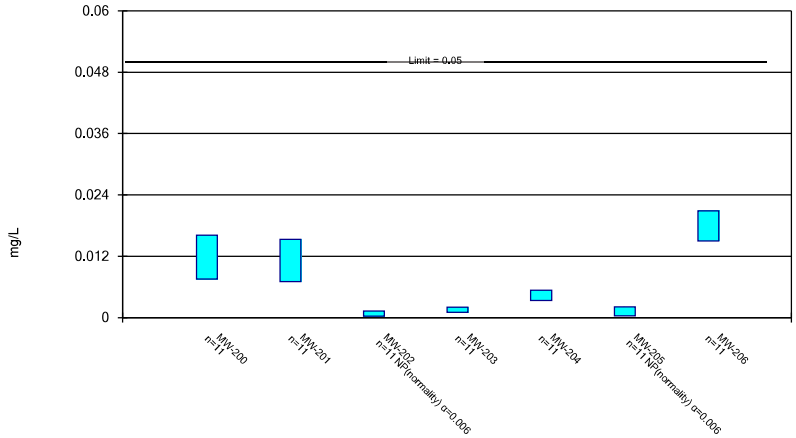


Constituent: Molybdenum Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

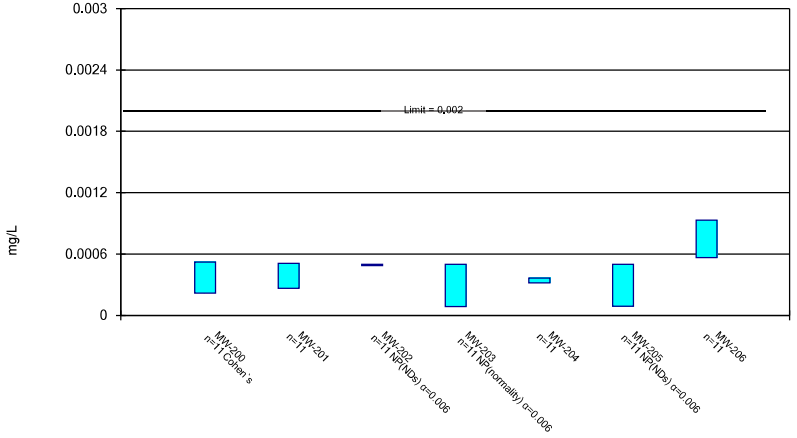


Constituent: Selenium Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 2/6/2019 3:35 PM View: Confidence Intervals - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

300 Series

Confidence Interval Summary Table - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	**MW-303**	**2.2**	**0.99**	**0.1**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**

Confidence Interval Summary Table - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-300	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-303	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-304	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-305	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	MW-308	0.0025	0.0025	0.006	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	MW-300	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-303	0.00172	0.0008476	0.01	No	11	36.36	No	0.01	Param.
Arsenic (mg/L)	MW-304	0.009239	0.0007979	0.01	No	11	0	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MW-305	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-308	0.0013	0.0013	0.01	No	11	100	No	0.006	NP (NDs)
Barium (mg/L)	MW-300	0.01203	0.01052	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-303	0.04141	0.02513	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-304	0.04483	0.02553	2	No	11	0	No	0.01	Param.
Barium (mg/L)	MW-305	0.018	0.016	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	MW-308	0.02855	0.02127	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	MW-300	0.0025	0.0025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	MW-303	0.0025	0.0025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	MW-304	0.0025	0.0025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	MW-305	0.0025	0.0025	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	MW-308	0.0025	0.0025	0.004	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	MW-300	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-303	0.0025	0.00036	0.005	No	11	18.18	No	0.006	NP (normality)
Cadmium (mg/L)	MW-304	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-305	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-308	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-300	0.0025	0.0025	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	MW-303	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	MW-304	0.0025	0.0012	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	MW-305	0.0025	0.0025	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	MW-308	0.0025	0.0025	0.1	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	MW-300	0.0025	0.00093	0.006	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-303	0.0025	0.0004	0.006	No	11	45.45	No	0.006	NP (normality)
Cobalt (mg/L)	MW-304	0.05689	0.005596	0.006	No	8	0	ln(x)	0.01	Param.
Cobalt (mg/L)	MW-305	0.0025	0.00042	0.006	No	11	36.36	No	0.006	NP (normality)
Cobalt (mg/L)	MW-308	0.0025	0.00056	0.006	No	11	81.82	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	MW-300	5.835	4.781	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-303	6.34	3.73	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-304	8.041	3.256	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-305	1.67	1.14	5	No	11	0	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-308	3.164	2.278	5	No	11	0	No	0.01	Param.
Fluoride (mg/L)	MW-300	0.1	0.041	4	No	12	91.67	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-303	0.2401	0.1414	4	No	13	0	No	0.01	Param.
Fluoride (mg/L)	MW-304	0.1307	0.06592	4	No	12	33.33	No	0.01	Param.
Fluoride (mg/L)	MW-305	0.1	0.035	4	No	12	91.67	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-308	0.1147	0.06534	4	No	13	0	No	0.01	Param.
Lead (mg/L)	MW-300	0.0013	0.0013	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	MW-303	0.0013	0.0013	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	MW-304	0.0013	0.00041	0.015	No	10	50	No	0.011	NP (normality)
Lead (mg/L)	MW-305	0.0013	0.0013	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	MW-308	0.0013	0.0013	0.015	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	MW-300	0.005	0.005	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-303	0.03033	0.02331	0.04	No	11	0	No	0.01	Param.
Lithium (mg/L)	MW-304	0.005	0.0012	0.04	No	11	81.82	No	0.006	NP (NDs)
Lithium (mg/L)	MW-305	0.005	0.0014	0.04	No	11	90.91	No	0.006	NP (NDs)
Lithium (mg/L)	MW-308	0.005	0.0011	0.04	No	11	90.91	No	0.006	NP (NDs)

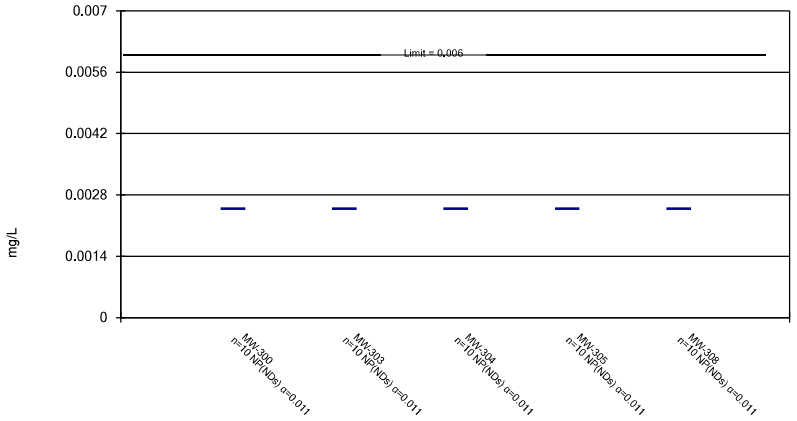
Confidence Interval Summary Table - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 2/6/2019, 4:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Mercury (mg/L)	MW-300	0.0002	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	MW-303	0.0002	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	MW-304	0.00065	0.000086	0.002	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Mercury (mg/L)	MW-305	0.0002	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	MW-308	0.0002	0.0002	0.002	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-300	0.015	0.015	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	**MW-303**	**2.2**	**0.99**	**0.1**	**Yes**	**11**	**0**	**No**	**0.006**	**NP (normality)**
Molybdenum (mg/L)	MW-304	0.015	0.0018	0.1	No	11	54.55	No	0.006	NP (normality)
Molybdenum (mg/L)	MW-305	0.015	0.0016	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	MW-308	0.015	0.00098	0.1	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	MW-300	0.0013	0.0013	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-303	0.0071	0.004263	0.05	No	11	0	No	0.01	Param.
Selenium (mg/L)	MW-304	0.0088	0.0029	0.05	No	11	0	No	0.006	NP (normality)
Selenium (mg/L)	MW-305	0.0013	0.0013	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	MW-308	0.006573	0.004427	0.05	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-300	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-303	0.0002245	0.0001737	0.002	No	11	0	No	0.01	Param.
Thallium (mg/L)	MW-304	0.000244	0.0001129	0.002	No	11	9.091	ln(x)	0.01	Param.
Thallium (mg/L)	MW-305	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	MW-308	0.0003217	0.0002493	0.002	No	11	0	No	0.01	Param.

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

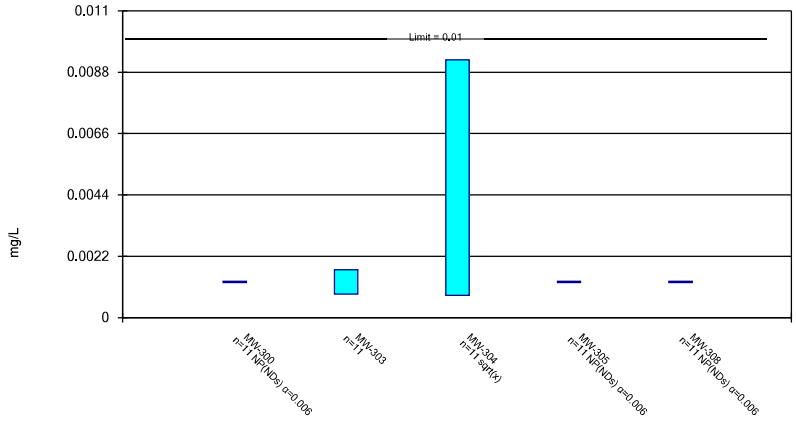


Constituent: Antimony Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

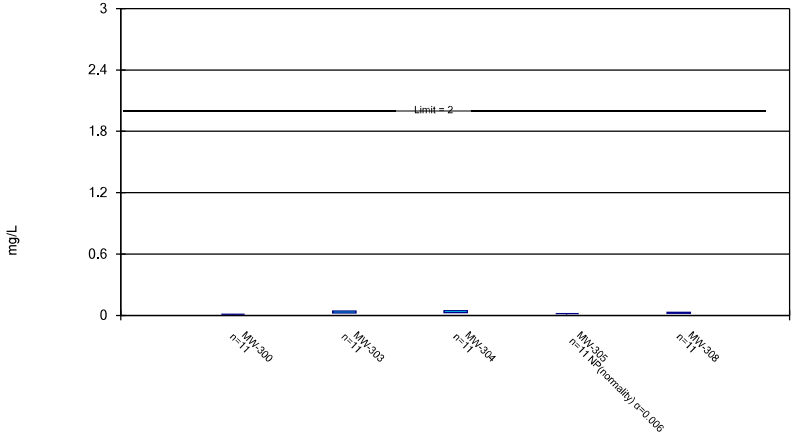


Constituent: Arsenic Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

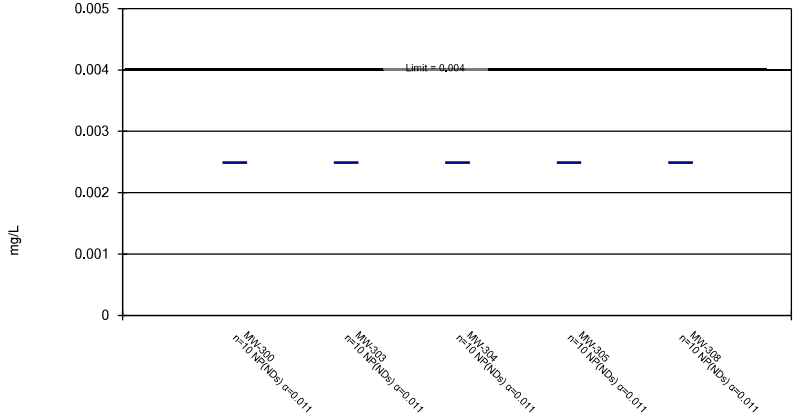


Constituent: Barium Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

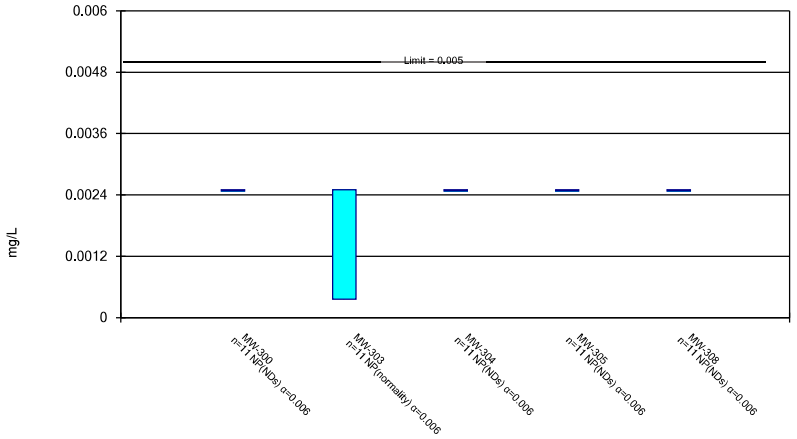
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

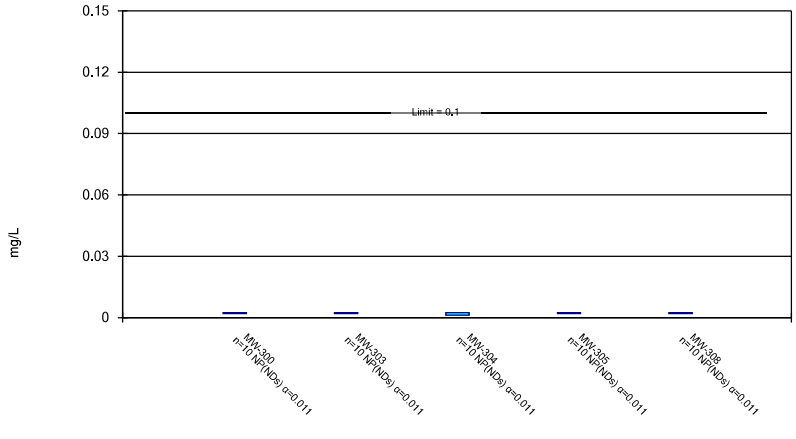


Constituent: Cadmium Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

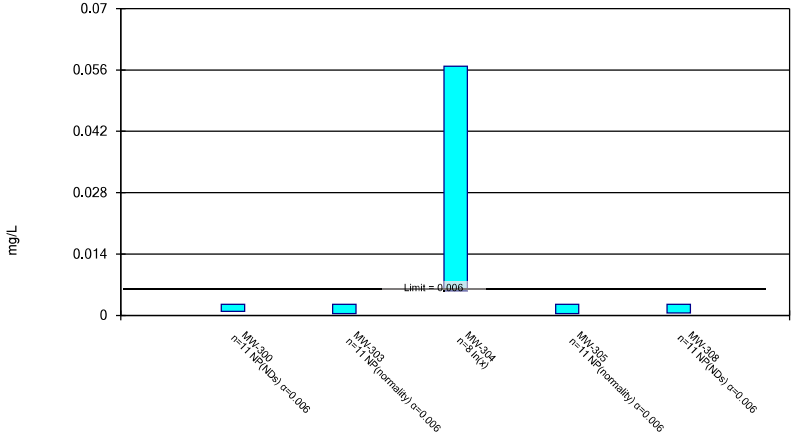


Constituent: Chromium Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

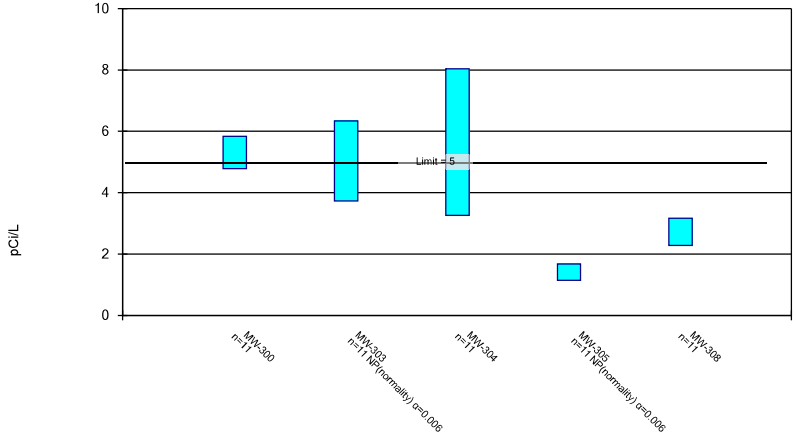


Constituent: Cobalt Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

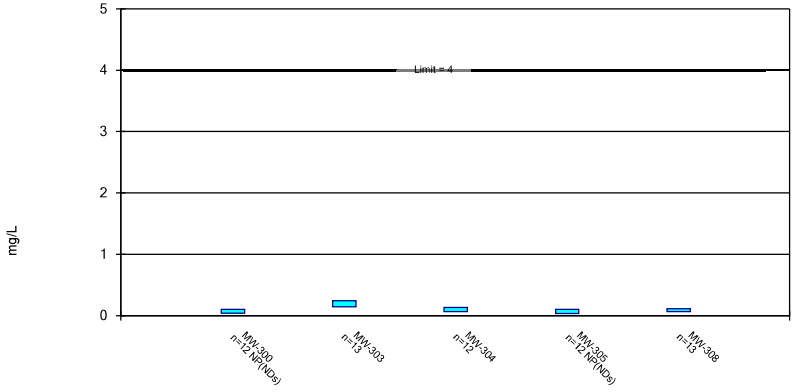
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 30
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

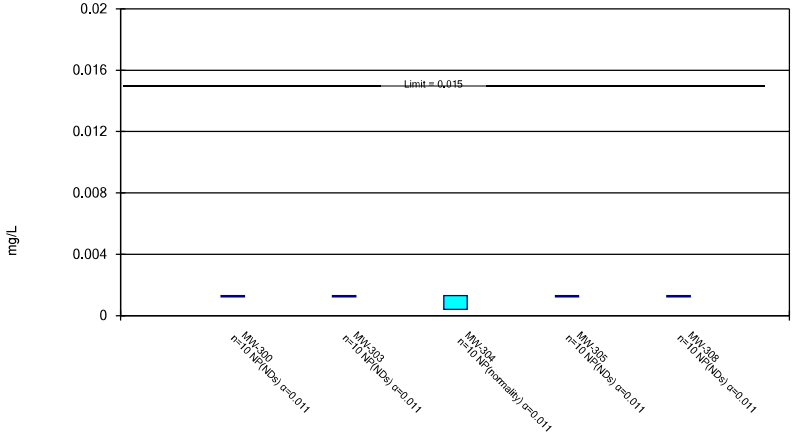
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

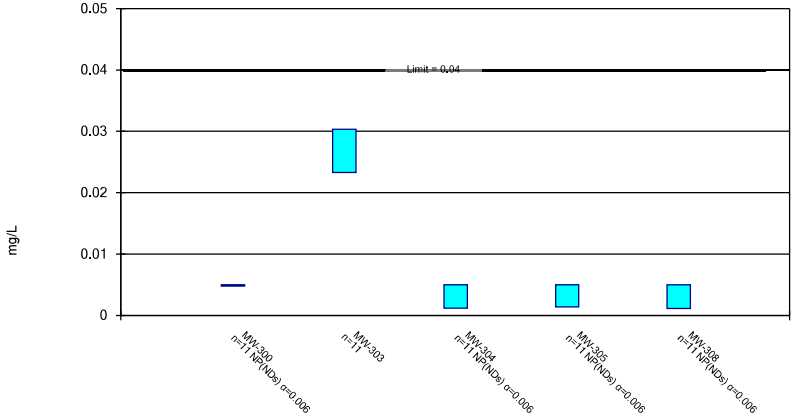
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Parametric and Non-Parametric (NP) Confidence Interval

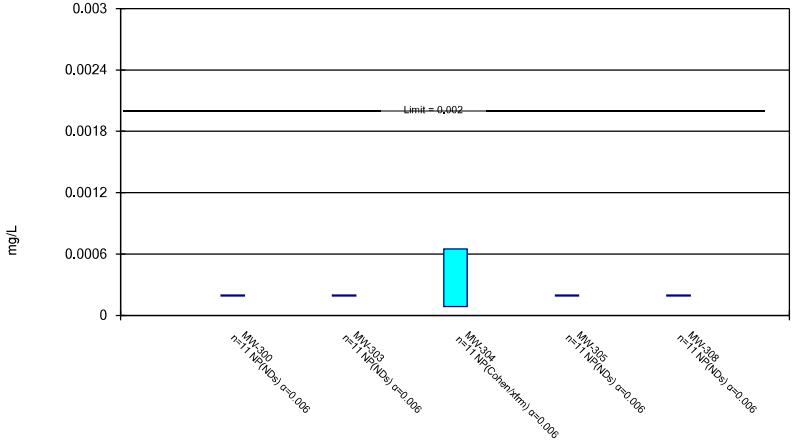
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

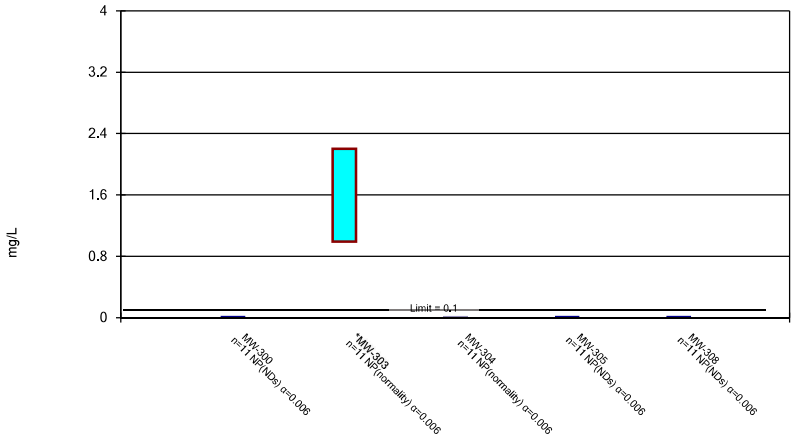


Constituent: Mercury Analysis Run 2/6/2019 4:00 PM View: Confidence Intervals - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance limit is exceeded.*



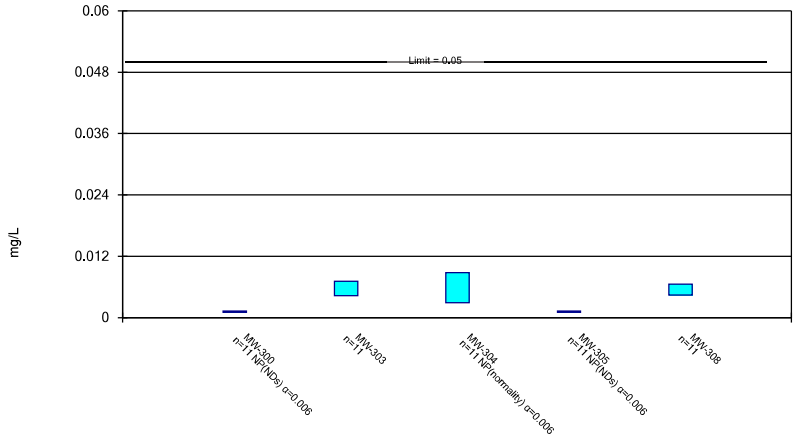
Constituent: Molybdenum Analysis Run 2/6/2019 4:01 PM View: Confidence Intervals - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



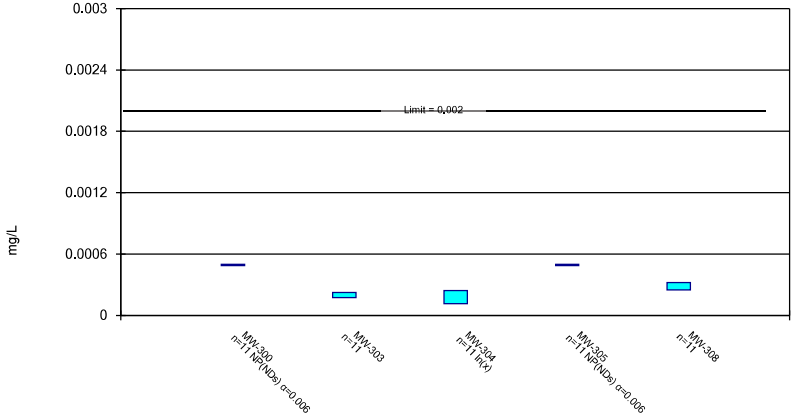
Constituent: Selenium Analysis Run 2/6/2019 4:01 PM View: Confidence Intervals - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 2/6/2019 4:01 PM View: Confidence Intervals - 300 Series

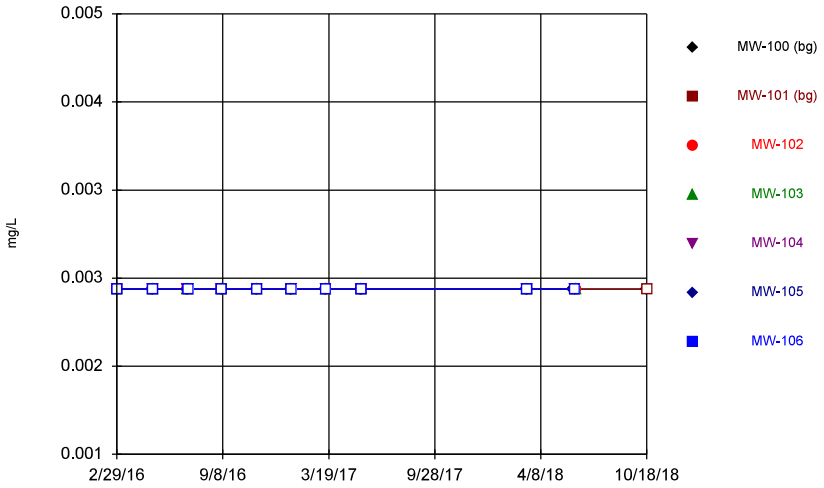
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series - 100, 200 & 300 Series

100 Series

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

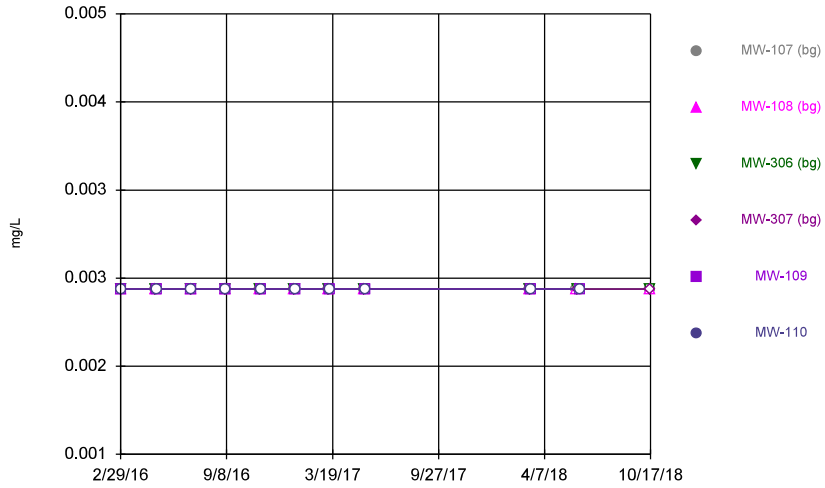
Time Series



Constituent: Antimony Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

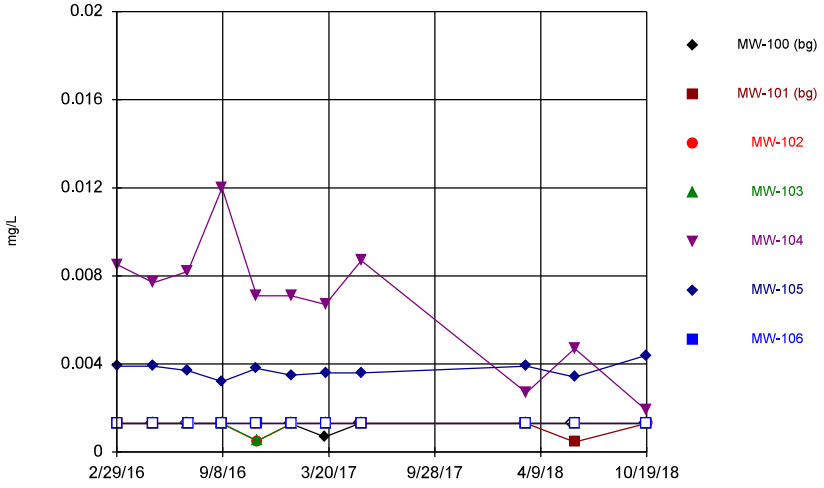
Time Series



Constituent: Antimony Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

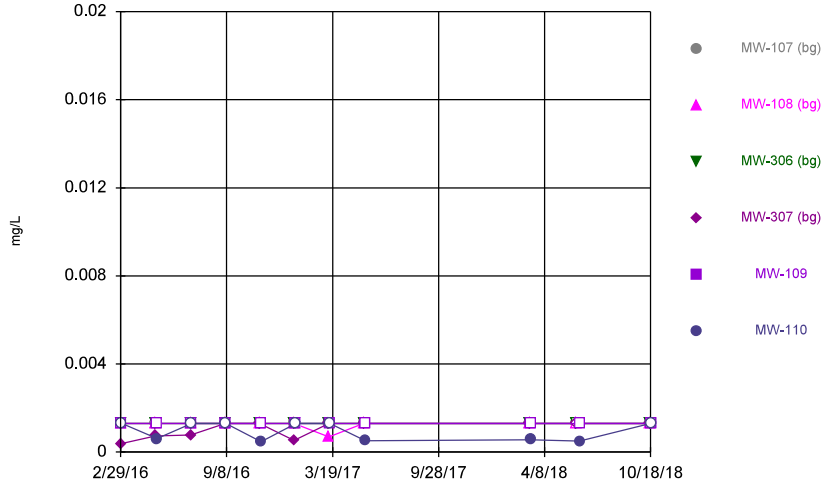
Time Series



Constituent: Arsenic Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0025	<0.0025					
3/1/2016			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/2/2016	<0.0025						
5/4/2016		<0.0025					<0.0025
5/5/2016			<0.0025	<0.0025	<0.0025	<0.0025	
7/5/2016	<0.0025						
7/7/2016			<0.0025	<0.0025	<0.0025	<0.0025	
7/8/2016		<0.0025					<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025				
9/7/2016				<0.0025	<0.0025	<0.0025	<0.0025
11/7/2016	<0.0025						
11/9/2016					<0.0025	<0.0025	<0.0025
11/10/2016		<0.0025	<0.0025	<0.0025			
1/9/2017	<0.0025						
1/11/2017		<0.0025			<0.0025	<0.0025	<0.0025
1/12/2017			<0.0025	<0.0025			
3/13/2017	<0.0025						
3/14/2017		<0.0025			<0.0025	<0.0025	<0.0025
3/15/2017			<0.0025	<0.0025			
5/15/2017	<0.0025						
5/18/2017		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/12/2018	<0.0025						
3/14/2018		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
6/5/2018	<0.0025						
6/10/2018		<0.0025			<0.0025	<0.0025	<0.0025
6/11/2018			<0.0025	<0.0025			
10/16/2018	<0.0025						
10/18/2018		<0.0025					

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0025	<0.0025				
3/1/2016			<0.0025	<0.0025		
3/2/2016					<0.0025	<0.0025
5/2/2016	<0.0025	<0.0025		<0.0025		
5/3/2016			<0.0025			
5/5/2016					<0.0025	<0.0025
7/5/2016	<0.0025	<0.0025	<0.0025	<0.0025		
7/7/2016					<0.0025	<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025		
9/7/2016					<0.0025	<0.0025
11/7/2016	<0.0025	<0.0025	<0.0025	<0.0025		
11/10/2016					<0.0025	<0.0025
1/9/2017	<0.0025	<0.0025	<0.0025	<0.0025		
1/12/2017					<0.0025	<0.0025
3/13/2017	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2017					<0.0025	
3/15/2017						<0.0025
5/15/2017	<0.0025	<0.0025	<0.0025	<0.0025		
5/18/2017					<0.0025	<0.0025
3/12/2018	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2018					<0.0025	<0.0025
6/5/2018	<0.0025	<0.0025				
6/6/2018			<0.0025	<0.0025		
6/11/2018					<0.0025	<0.0025
10/16/2018	<0.0025	<0.0025				
10/17/2018			<0.0025	<0.0025		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0013	<0.0013					
3/1/2016			<0.0013	<0.0013	0.0085	0.0039 (J)	<0.0013
5/2/2016	<0.0013						
5/4/2016		<0.0013					<0.0013
5/5/2016			<0.0013	<0.0013	0.0077	0.0039	
7/5/2016	<0.0013						
7/7/2016			<0.0013	<0.0013	0.0082	0.0037	
7/8/2016		<0.0013					<0.0013
9/6/2016	<0.0013	<0.0013	<0.0013				
9/7/2016				<0.0013	0.012	0.0032	<0.0013
11/7/2016	<0.0013						
11/9/2016					0.0071	0.0038	<0.0013
11/10/2016		<0.0013	0.0005 (J)	0.00051 (J)			
1/9/2017	<0.0013						
1/11/2017		<0.0013			0.0071	0.0035	<0.0013
1/12/2017			<0.0013	<0.0013			
3/13/2017	0.00069 (J)						
3/14/2017		<0.0013			0.0067	0.0036	<0.0013
3/15/2017			<0.0013	<0.0013			
5/15/2017	<0.0013						
5/18/2017		<0.0013	<0.0013	<0.0013	0.0087	0.0036	<0.0013
3/12/2018	<0.0013						
3/14/2018		<0.0013	<0.0013	<0.0013	0.0027	0.0039	<0.0013
6/5/2018	<0.0013						
6/10/2018		0.00046 (J)			0.0047	0.0034	<0.0013
6/11/2018			<0.0013	<0.0013			
10/16/2018	<0.0013						
10/18/2018		<0.0013		<0.0013	0.0019	0.0044	<0.0013
10/19/2018			<0.0013				

Time Series

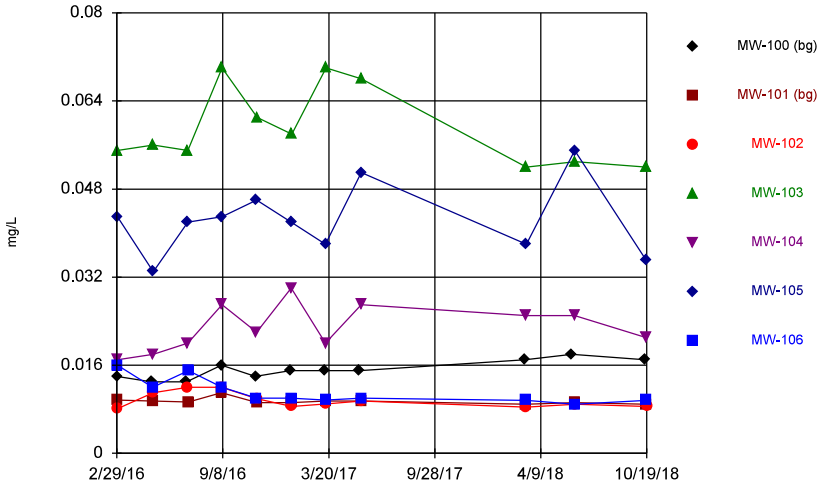
Constituent: Arsenic (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0013	<0.0013				
3/1/2016			<0.0013	0.00038 (J)		
3/2/2016					<0.0013	<0.0013
5/2/2016	<0.0013	<0.0013		0.00073 (J)		
5/3/2016			<0.0013			
5/5/2016					<0.0013	0.00061 (J)
7/5/2016	<0.0013	<0.0013	<0.0013	0.00077 (J)		
7/7/2016					<0.0013	<0.0013
9/6/2016	<0.0013	<0.0013	<0.0013	0.0013		
9/7/2016					<0.0013	<0.0013
11/7/2016	<0.0013	<0.0013	<0.0013	<0.0013		
11/10/2016					<0.0013	0.00047 (J)
1/9/2017	<0.0013	<0.0013	<0.0013	0.00053 (J)		
1/12/2017					<0.0013	<0.0013
3/13/2017	<0.0013	0.00069 (J)	<0.0013	<0.0013		
3/14/2017					<0.0013	
3/15/2017						<0.0013
5/15/2017	<0.0013	<0.0013	<0.0013	<0.0013		
5/18/2017					<0.0013	0.00051 (J)
3/12/2018	<0.0013	<0.0013	<0.0013	<0.0013		
3/14/2018					<0.0013	0.00056 (J)
6/5/2018	<0.0013	<0.0013				
6/6/2018			<0.0013	<0.0013		
6/11/2018					<0.0013	0.0005 (J)
10/16/2018	<0.0013	<0.0013				
10/17/2018			<0.0013	<0.0013		
10/18/2018					<0.0013	<0.0013

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

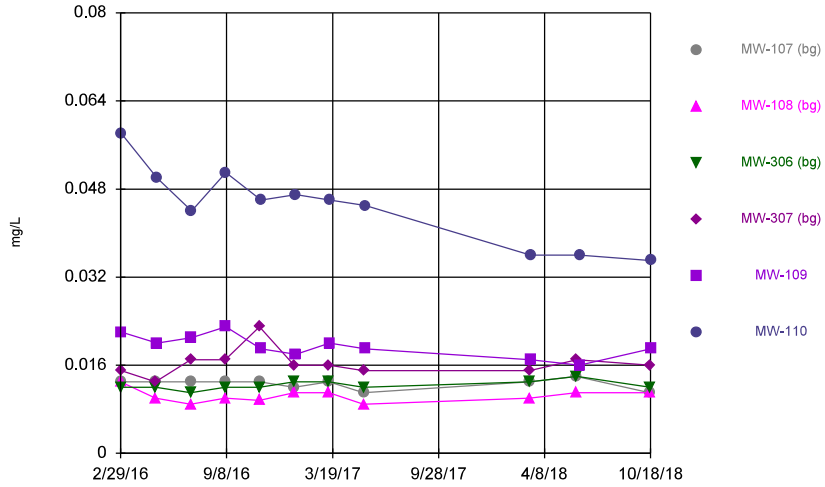


Constituent: Barium Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



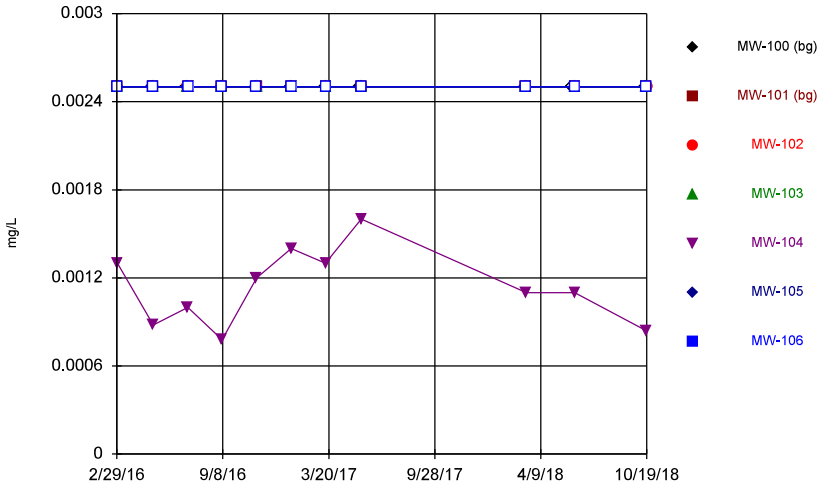
Constituent: Barium Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



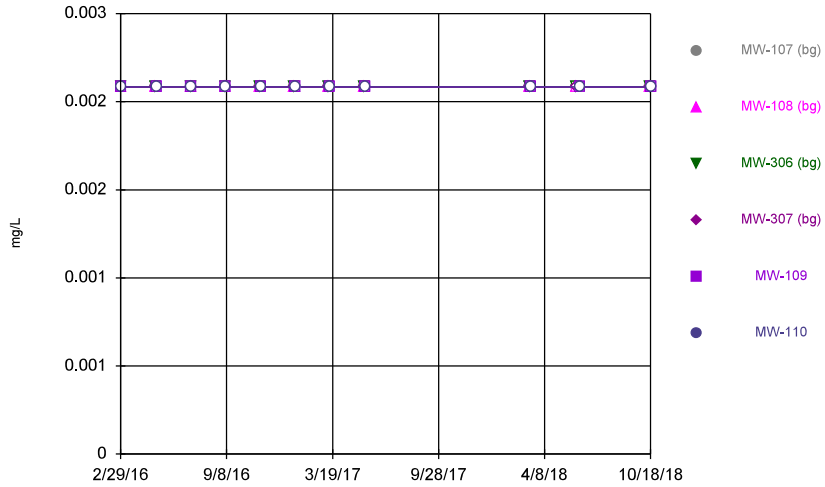
Constituent: Beryllium Analysis Run 2/6/2019 4:11 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	0.014	0.0097 (J)					
3/1/2016			0.0081 (J)	0.055	0.017	0.043	0.016
5/2/2016	0.013						
5/4/2016		0.0095					0.012
5/5/2016			0.011	0.056	0.018	0.033	
7/5/2016	0.013						
7/7/2016			0.012	0.055	0.02	0.042	
7/8/2016		0.0093					0.015
9/6/2016	0.016	0.011	0.012				
9/7/2016				0.07	0.027	0.043	0.012
11/7/2016	0.014						
11/9/2016					0.022	0.046	0.01
11/10/2016		0.0092	0.0099	0.061			
1/9/2017	0.015						
1/11/2017		0.0092			0.03	0.042	0.01
1/12/2017			0.0085	0.058			
3/13/2017	0.015						
3/14/2017		0.0095			0.02	0.038	0.0097
3/15/2017			0.009	0.07			
5/15/2017	0.015						
5/18/2017		0.0095	0.0095	0.068	0.027	0.051	0.01
3/12/2018	0.017						
3/14/2018		0.0089	0.0084	0.052	0.025	0.038	0.0096
6/5/2018	0.018						
6/10/2018		0.0092			0.025	0.055	0.0089
6/11/2018			0.0089	0.053			
10/16/2018	0.017						
10/18/2018		0.0089		0.052	0.021	0.035	0.0096
10/19/2018			0.0085				

Time Series

Constituent: Barium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	0.013	0.013				
3/1/2016			0.012	0.015		
3/2/2016					0.022	0.058
5/2/2016	0.013	0.01		0.013		
5/3/2016			0.012			
5/5/2016					0.02	0.05
7/5/2016	0.013	0.0089	0.011	0.017		
7/7/2016					0.021	0.044
9/6/2016	0.013	0.01	0.012	0.017		
9/7/2016					0.023	0.051
11/7/2016	0.013	0.0096	0.012	0.023		
11/10/2016					0.019	0.046
1/9/2017	0.012	0.011	0.013	0.016		
1/12/2017					0.018	0.047
3/13/2017	0.013	0.011	0.013	0.016		
3/14/2017					0.02	
3/15/2017						0.046
5/15/2017	0.011	0.0089	0.012	0.015		
5/18/2017					0.019	0.045
3/12/2018	0.013	0.01	0.013	0.015		
3/14/2018					0.017	0.036
6/5/2018	0.014	0.011				
6/6/2018			0.014	0.017		
6/11/2018					0.016	0.036
10/16/2018	0.011	0.011				
10/17/2018			0.012	0.016		
10/18/2018					0.019	0.035

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0025	<0.0025					
3/1/2016			<0.0025	<0.0025	0.0013 (J)	<0.0025	<0.0025
5/2/2016	<0.0025						
5/4/2016		<0.0025					<0.0025
5/5/2016			<0.0025	<0.0025	0.00088 (J)	<0.0025	
7/5/2016	<0.0025						
7/7/2016			<0.0025	<0.0025	0.001 (J)	<0.0025	
7/8/2016		<0.0025					<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025				
9/7/2016				<0.0025	0.00078 (J)	<0.0025	<0.0025
11/7/2016	<0.0025						
11/9/2016					0.0012 (J)	<0.0025	<0.0025
11/10/2016		<0.0025	<0.0025	<0.0025			
1/9/2017	<0.0025						
1/11/2017		<0.0025			0.0014 (J)	<0.0025	<0.0025
1/12/2017			<0.0025	<0.0025			
3/13/2017	<0.0025						
3/14/2017		<0.0025			0.0013 (J)	<0.0025	<0.0025
3/15/2017			<0.0025	<0.0025			
5/15/2017	<0.0025						
5/18/2017		<0.0025	<0.0025	<0.0025	0.0016 (J)	<0.0025	<0.0025
3/12/2018	<0.0025						
3/14/2018		<0.0025	<0.0025	<0.0025	0.0011 (J)	<0.0025	<0.0025
6/5/2018	<0.0025						
6/10/2018		<0.0025			0.0011 (J)	<0.0025	<0.0025
6/11/2018			<0.0025	<0.0025			
10/16/2018	<0.0025						
10/18/2018		<0.0025		<0.0025	0.00084 (J)	<0.0025	<0.0025
10/19/2018			<0.0025				

Time Series

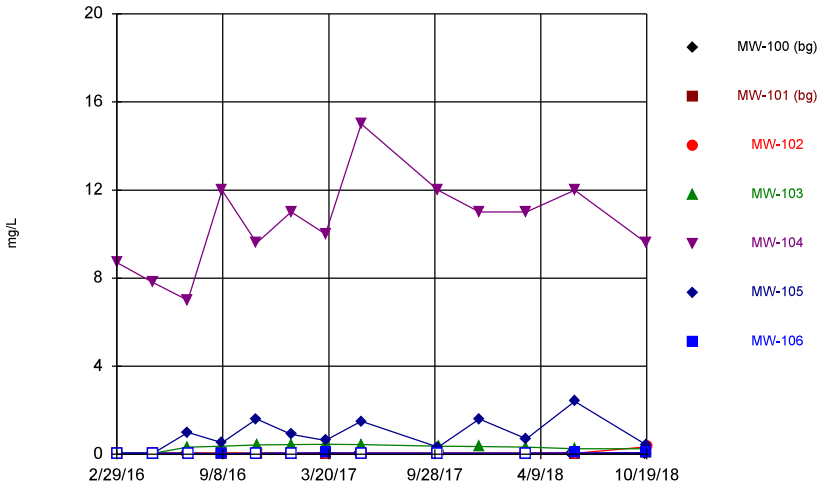
Constituent: Beryllium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0025	<0.0025				
3/1/2016			<0.0025	<0.0025		
3/2/2016					<0.0025	<0.0025
5/2/2016	<0.0025	<0.0025		<0.0025		
5/3/2016			<0.0025			
5/5/2016					<0.0025	<0.0025
7/5/2016	<0.0025	<0.0025	<0.0025	<0.0025		
7/7/2016					<0.0025	<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025		
9/7/2016					<0.0025	<0.0025
11/7/2016	<0.0025	<0.0025	<0.0025	<0.0025		
11/10/2016					<0.0025	<0.0025
1/9/2017	<0.0025	<0.0025	<0.0025	<0.0025		
1/12/2017					<0.0025	<0.0025
3/13/2017	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2017					<0.0025	
3/15/2017						<0.0025
5/15/2017	<0.0025	<0.0025	<0.0025	<0.0025		
5/18/2017					<0.0025	<0.0025
3/12/2018	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2018					<0.0025	<0.0025
6/5/2018	<0.0025	<0.0025				
6/6/2018			<0.0025	<0.0025		
6/11/2018					<0.0025	<0.0025
10/16/2018	<0.0025	<0.0025				
10/17/2018			<0.0025	<0.0025		
10/18/2018					<0.0025	<0.0025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

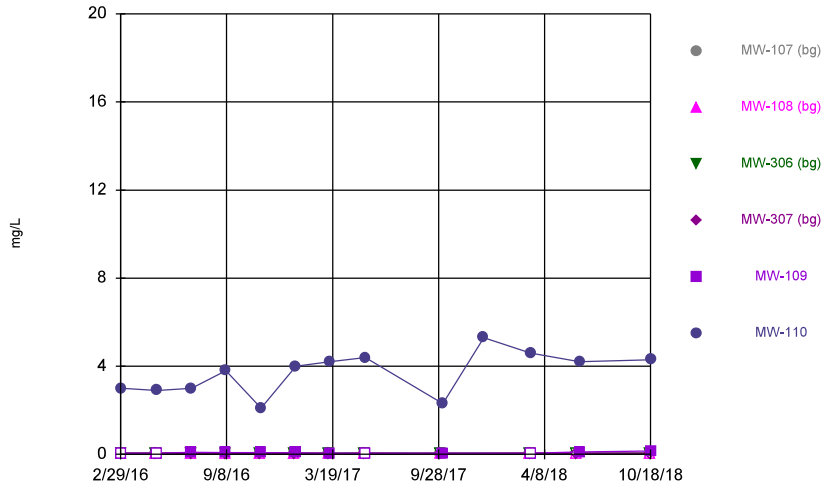
Time Series



Constituent: Boron Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

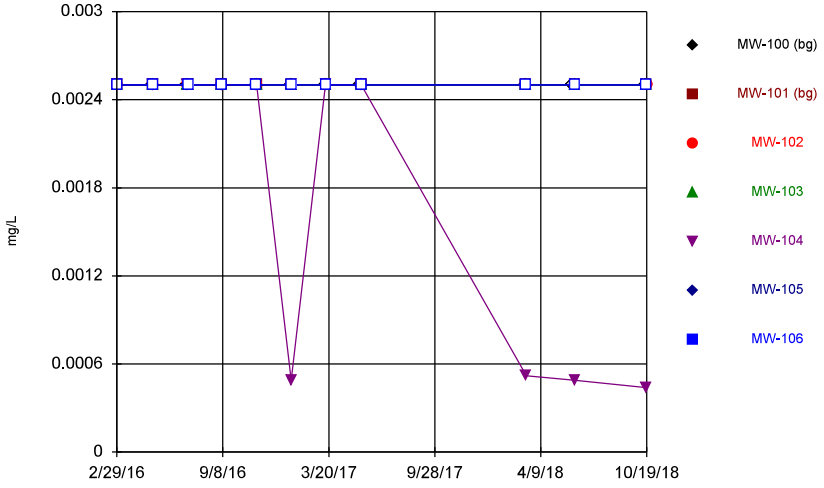
Time Series



Constituent: Boron Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

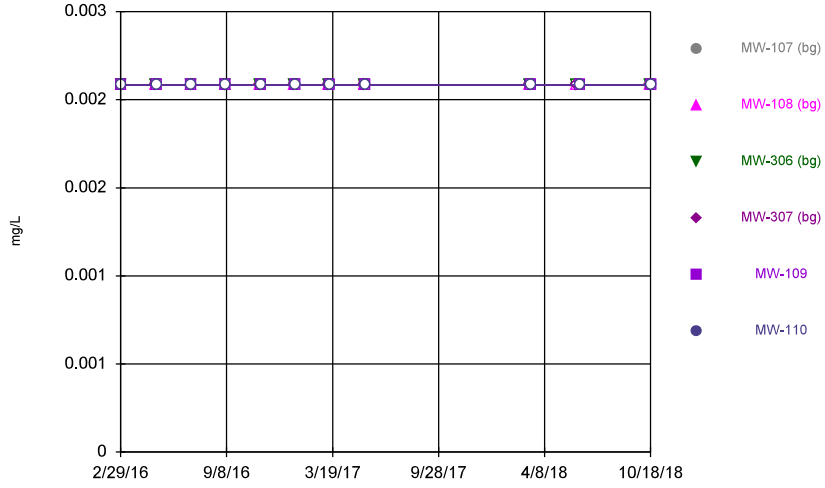
Time Series



Constituent: Cadmium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.05	<0.05					
3/1/2016			<0.05	<0.05 (*)	8.7	<0.05 (*)	<0.05
5/2/2016	<0.05						
5/4/2016		<0.05					<0.05 (*)
5/5/2016			<0.05	<0.05 (*)	7.8	<0.05 (*)	
7/5/2016	<0.05						
7/7/2016			<0.05	0.33	7	1	
7/8/2016		<0.05					<0.05
9/6/2016	<0.05	<0.05	<0.05				
9/7/2016				0.37	12	0.53	0.022 (J)
11/7/2016	<0.05						
11/9/2016					9.6	1.6	<0.05
11/10/2016		<0.05	<0.05	0.43			
1/9/2017	<0.05						
1/11/2017		<0.05			11	0.9	<0.05
1/12/2017			<0.05	0.44			
3/13/2017	<0.05						
3/14/2017		<0.05			10	0.63	0.071
3/15/2017			<0.05	0.46			
5/15/2017	<0.05						
5/18/2017		<0.05	<0.05	0.44	15	1.5	<0.05 (*)
10/2/2017	<0.05						
10/5/2017		<0.05			12	0.32	<0.05
10/6/2017			<0.05	0.37			
12/19/2017				0.35 (R)	11 (R)	1.6 (R)	
3/12/2018	<0.05						
3/14/2018		<0.05	<0.05	0.32	11	0.7	<0.05
6/5/2018	<0.05						
6/10/2018		<0.05			12	2.4	0.066
6/11/2018			<0.05	0.26			
10/16/2018	<0.05						
10/18/2018		0.081		0.25	9.6	0.43	0.067
10/19/2018			0.34				

Time Series

Constituent: Boron (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.05	<0.05				
3/1/2016			<0.05	<0.05		
3/2/2016					<0.05 (*)	3
5/2/2016	<0.05	<0.05		<0.05		
5/3/2016			<0.05			
5/5/2016					<0.05 (*)	2.9
7/5/2016	<0.05	<0.05	<0.05	<0.05		
7/7/2016					0.1	3
9/6/2016	<0.05	<0.05	<0.05	<0.05		
9/7/2016					0.073	3.8
11/7/2016	<0.05	<0.05	<0.05	<0.05		
11/10/2016					0.073	2.1
1/9/2017	<0.05	<0.05	<0.05	<0.05		
1/12/2017					0.059	4
3/13/2017	<0.05	0.022 (J)	<0.05	<0.05		
3/14/2017					0.044 (J)	
3/15/2017						4.2
5/15/2017	<0.05	<0.05	<0.05	<0.05		
5/18/2017					<0.05 (*)	4.4
10/2/2017	<0.05	0.023 (J)	<0.05	<0.05		
10/5/2017					0.047 (J)	
10/6/2017						2.3
12/19/2017						5.3 (R)
3/12/2018	<0.05	<0.05	<0.05	<0.05		
3/14/2018					<0.05	4.6
6/5/2018	<0.05	<0.05				
6/6/2018			<0.05	<0.05		
6/11/2018					0.11	4.2
10/16/2018	<0.05	<0.05				
10/17/2018			<0.05	<0.05		
10/18/2018					0.15	4.3

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0025	<0.0025					
3/1/2016			<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/2/2016	<0.0025						
5/4/2016		<0.0025					<0.0025
5/5/2016			<0.0025	<0.0025	<0.0025	<0.0025	
7/5/2016	<0.0025						
7/7/2016			<0.0025	<0.0025	<0.0025	<0.0025	
7/8/2016		<0.0025					<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025				
9/7/2016				<0.0025	<0.0025	<0.0025	<0.0025
11/7/2016	<0.0025						
11/9/2016					<0.0025	<0.0025	<0.0025
11/10/2016		<0.0025	<0.0025	<0.0025			
1/9/2017	<0.0025						
1/11/2017		<0.0025			0.00049 (J)	<0.0025	<0.0025
1/12/2017			<0.0025	<0.0025			
3/13/2017	<0.0025						
3/14/2017		<0.0025			<0.0025	<0.0025	<0.0025
3/15/2017			<0.0025	<0.0025			
5/15/2017	<0.0025						
5/18/2017		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/12/2018	<0.0025						
3/14/2018		<0.0025	<0.0025	<0.0025	0.00052 (J)	<0.0025	<0.0025
6/5/2018	<0.0025						
6/10/2018		<0.0025			0.00049 (J)	<0.0025	<0.0025
6/11/2018			<0.0025	<0.0025			
10/16/2018	<0.0025						
10/18/2018		<0.0025		<0.0025	0.00044 (J)	<0.0025	<0.0025
10/19/2018			<0.0025				

Time Series

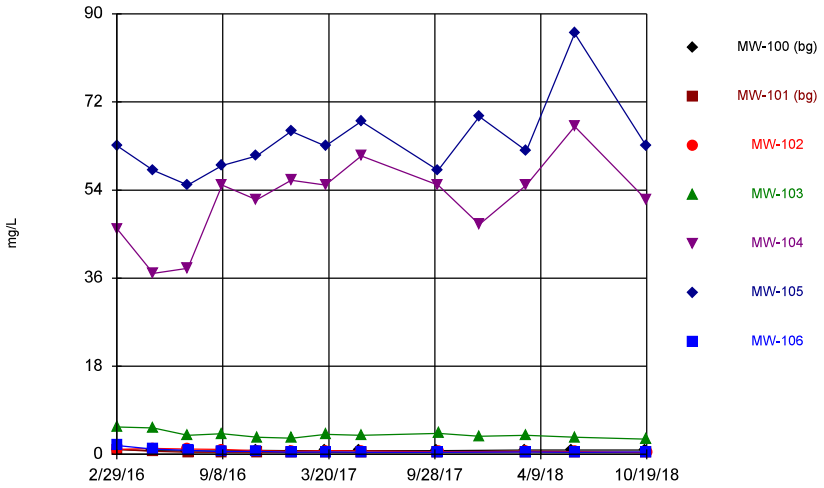
Constituent: Cadmium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0025	<0.0025				
3/1/2016			<0.0025	<0.0025		
3/2/2016					<0.0025	<0.0025
5/2/2016	<0.0025	<0.0025		<0.0025		
5/3/2016			<0.0025			
5/5/2016					<0.0025	<0.0025
7/5/2016	<0.0025	<0.0025	<0.0025	<0.0025		
7/7/2016					<0.0025	<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025		
9/7/2016					<0.0025	<0.0025
11/7/2016	<0.0025	<0.0025	<0.0025	<0.0025		
11/10/2016					<0.0025	<0.0025
1/9/2017	<0.0025	<0.0025	<0.0025	<0.0025		
1/12/2017					<0.0025	<0.0025
3/13/2017	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2017					<0.0025	
3/15/2017						<0.0025
5/15/2017	<0.0025	<0.0025	<0.0025	<0.0025		
5/18/2017					<0.0025	<0.0025
3/12/2018	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2018					<0.0025	<0.0025
6/5/2018	<0.0025	<0.0025				
6/6/2018			<0.0025	<0.0025		
6/11/2018					<0.0025	<0.0025
10/16/2018	<0.0025	<0.0025				
10/17/2018			<0.0025	<0.0025		
10/18/2018					<0.0025	<0.0025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

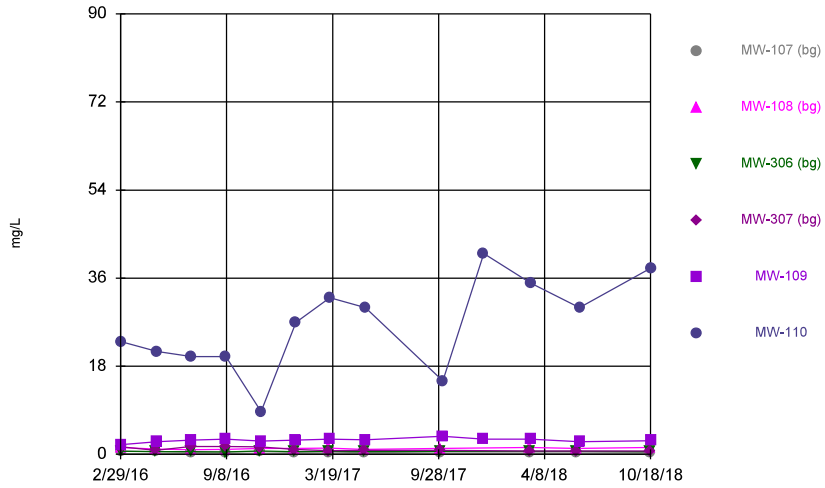


Constituent: Calcium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

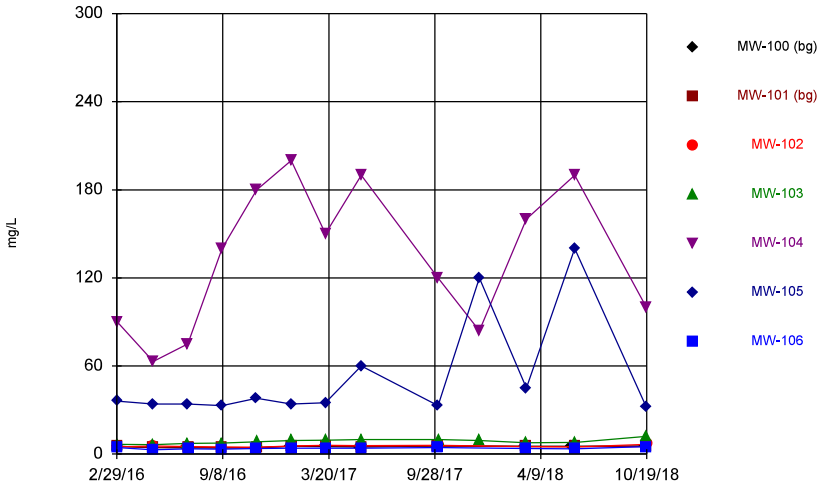


Constituent: Calcium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

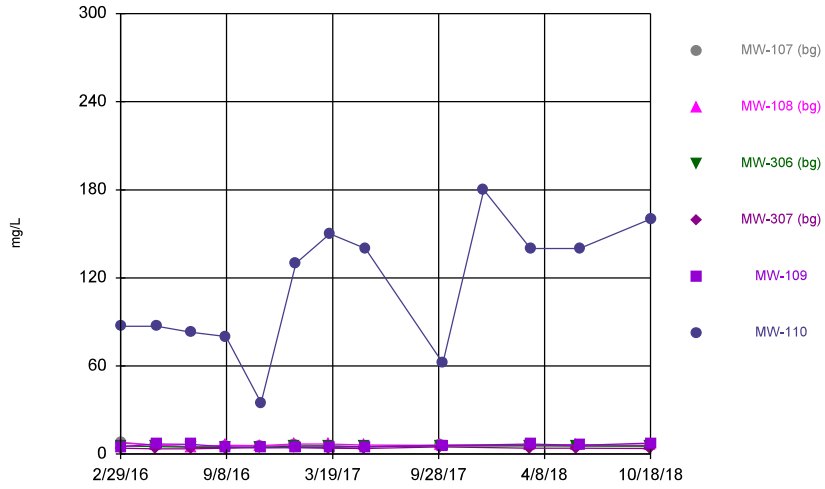


Constituent: Chloride Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Chloride Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	1	1 (J)					
3/1/2016			0.99 (J)	5.6	46	63	1.8
5/2/2016	0.78						
5/4/2016		0.62					1.1
5/5/2016			1.2	5.4	37	58	
7/5/2016	0.65						
7/7/2016			1.1	3.9	38	55	
7/8/2016		0.4					0.82
9/6/2016	0.7	0.45	1				
9/7/2016				4.2	55	59	0.57
11/7/2016	0.8						
11/9/2016					52	61	0.62
11/10/2016		0.44	0.73	3.5			
1/9/2017	0.74						
1/11/2017		0.42			56	66	0.44
1/12/2017			0.63	3.3			
3/13/2017	0.78						
3/14/2017		0.42			55	63	0.46
3/15/2017			0.72	4.1			
5/15/2017	0.76						
5/18/2017		0.38	0.71	3.9	61	68	0.41
10/2/2017	0.78						
10/5/2017		0.39			55	58	0.39
10/6/2017			0.56	4.3			
12/19/2017				3.7 (R)	47 (R)	69 (R)	
3/12/2018	0.88						
3/14/2018		0.49	0.63	3.9	55	62	0.47
6/5/2018	0.9						
6/10/2018		0.39			67	86	0.39
6/11/2018			0.55	3.5			
10/16/2018	0.86						
10/18/2018		0.41		3.1	52	63	0.47
10/19/2018			0.37				

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	0.67	1.4				
3/1/2016			0.6	1.5		
3/2/2016					2	23
5/2/2016	0.58	1.1		0.83		
5/3/2016			0.55			
5/5/2016					2.6	21
7/5/2016	0.43	0.94	0.53	1.6		
7/7/2016					2.9	20
9/6/2016	0.48	1	0.5	1.6		
9/7/2016					3.1	20
11/7/2016	0.56	1.2	0.68	1.5		
11/10/2016					2.7	8.7
1/9/2017	0.43	1.2	0.56	0.98		
1/12/2017					2.9	27
3/13/2017	0.48	1.3	0.62	0.75		
3/14/2017					3.1	
3/15/2017						32
5/15/2017	0.37	1	0.58	0.83		
5/18/2017					3	30
10/2/2017	0.47	1.2	0.62	0.83		
10/5/2017					3.7	
10/6/2017						15
12/19/2017					3.1 (R)	41 (R)
3/12/2018	0.49	1.4	0.59	0.71		
3/14/2018					3.1	35
6/5/2018	0.49	1.2				
6/6/2018			0.59	0.68		
6/11/2018					2.6	30
10/16/2018	0.42	1.4				
10/17/2018			0.54	0.66		
10/18/2018					2.8	38

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	5.3	5.4					
3/1/2016			4.8	6.6	90	36	4.4
5/2/2016	4.4						
5/4/2016		4.5					3
5/5/2016			5.6	6.5	63	34	
7/5/2016	4.2						
7/7/2016			5	7.3	75	34	
7/8/2016		4.9					3.5
9/6/2016	4.3	4.3	4.8				
9/7/2016				7.4	140	33	3.3
11/7/2016	4.2						
11/9/2016					180	38	3.9
11/10/2016		4.5	4.7	8.4			
1/9/2017	5.3						
1/11/2017		5.3			200	34	4.1
1/12/2017			5.6	9.2			
3/13/2017	5.2						
3/14/2017		5.5			150	35	4
3/15/2017			5.9	9.5			
5/15/2017	4.8						
5/18/2017		5	5.7	9.9	190	60	4
10/2/2017	5.5						
10/5/2017		5.6			120	33	4.5
10/6/2017			6	10			
12/19/2017				9.3 (R)	84 (R)	120 (R)	
3/12/2018	5.3						
3/14/2018		5.2	5.2	7.7	160	45	3.7
6/5/2018	5.3						
6/10/2018		5.2			190	140	3.6
6/11/2018			4.9	8			
10/16/2018	5.5						
10/18/2018		5.2		12	100	32	5
10/19/2018			6.7				

Time Series

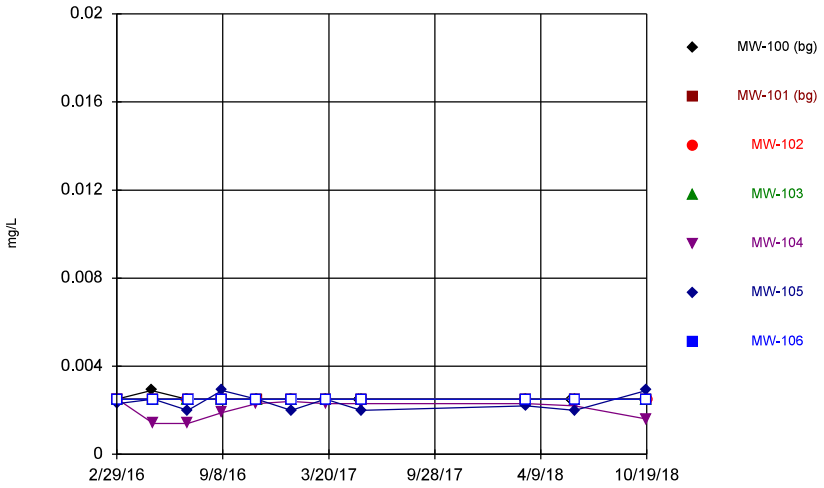
Constituent: Chloride (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	8.1	7.4				
3/1/2016			5.6	4		
3/2/2016					5	87
5/2/2016	6	6.3		3.6		
5/3/2016			5.1			
5/5/2016					6.8	87
7/5/2016	5.2	4.8	4.7	3.6		
7/7/2016					6.7	83
9/6/2016	5.5	6	4.4	4		
9/7/2016					4.8	80
11/7/2016	5.4	5.7	4.6	4.4		
11/10/2016					4.2	35
1/9/2017	6.1	6.8	5.3	4.4		
1/12/2017					4.4	130
3/13/2017	5.5	6.8	5.6	4.1		
3/14/2017					4.4	
3/15/2017						150
5/15/2017	4.7	6.1	5.2	3.7		
5/18/2017					5	140
10/2/2017	6.1	6	5.5	4.8		
10/5/2017					5.8	
10/6/2017						62
12/19/2017						180 (R)
3/12/2018	6.1	5.9	5.6	4		
3/14/2018					6.9	140
6/5/2018	5.5	6.5				
6/6/2018			5.6	4.1		
6/11/2018					6	140
10/16/2018	5.1	5.9				
10/17/2018			5.5	3.7		
10/18/2018					7.5	160

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

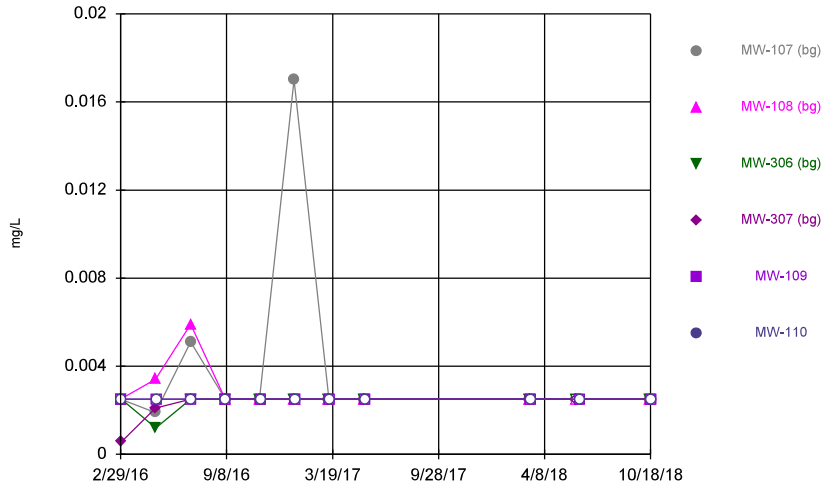
Time Series



Constituent: Chromium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

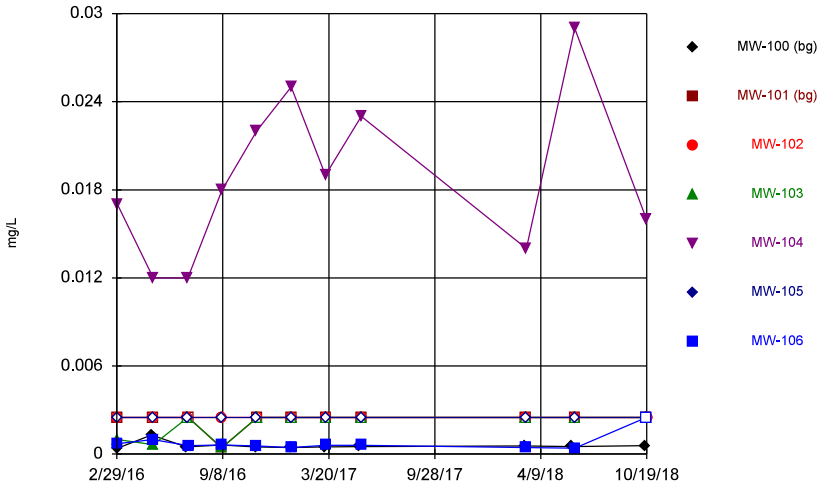
Time Series



Constituent: Chromium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

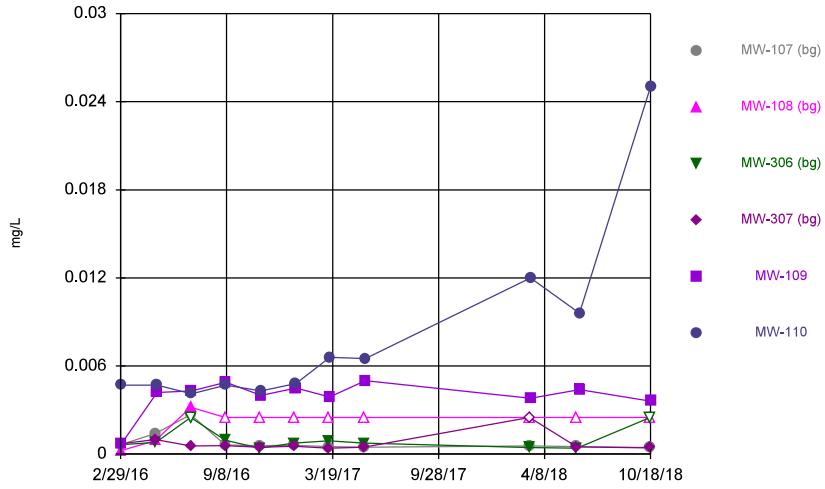
Time Series



Constituent: Cobalt Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0025	<0.0025					
3/1/2016			<0.0025	<0.0025	<0.0025	0.0023 (J)	<0.0025
5/2/2016	0.0029						
5/4/2016		<0.0025					<0.0025
5/5/2016			<0.0025	<0.0025	0.0014 (J)	<0.0025	
7/5/2016	<0.0025						
7/7/2016			<0.0025	<0.0025	0.0014 (J)	0.002 (J)	
7/8/2016		<0.0025					<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025				
9/7/2016				<0.0025	0.0019 (J)	0.0029	<0.0025
11/7/2016	<0.0025						
11/9/2016					0.0023 (J)	0.0025	<0.0025
11/10/2016		<0.0025	<0.0025	<0.0025			
1/9/2017	<0.0025						
1/11/2017		<0.0025			0.0024 (J)	0.002 (J)	<0.0025
1/12/2017			<0.0025	<0.0025			
3/13/2017	<0.0025						
3/14/2017		<0.0025			0.0023 (J)	0.0025	<0.0025
3/15/2017			<0.0025	<0.0025			
5/15/2017	<0.0025						
5/18/2017		<0.0025	<0.0025	<0.0025	0.0023 (J)	0.002 (J)	<0.0025
3/12/2018	<0.0025						
3/14/2018		<0.0025	<0.0025	<0.0025	0.0023 (J)	0.0022 (J)	<0.0025
6/5/2018	<0.0025						
6/10/2018		<0.0025			0.0022 (J)	0.002 (J)	<0.0025
6/11/2018			<0.0025	<0.0025			
10/16/2018	<0.0025						
10/18/2018		<0.0025		<0.0025	0.0016 (J)	0.0029	<0.0025
10/19/2018			<0.0025				

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0025	<0.0025				
3/1/2016			<0.0025	0.00056 (J)		
3/2/2016					<0.0025	<0.0025
5/2/2016	0.0019 (J)	0.0034		0.0021 (J)		
5/3/2016			0.0012 (J)			
5/5/2016					<0.0025	<0.0025
7/5/2016	0.0051	0.0059	<0.0025	<0.0025		
7/7/2016					<0.0025	<0.0025
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025		
9/7/2016					<0.0025	<0.0025
11/7/2016	<0.0025	<0.0025	<0.0025	<0.0025		
11/10/2016					<0.0025	<0.0025
1/9/2017	0.017	<0.0025	<0.0025	<0.0025		
1/12/2017					<0.0025	<0.0025
3/13/2017	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2017					<0.0025	
3/15/2017						<0.0025
5/15/2017	<0.0025	<0.0025	<0.0025	<0.0025		
5/18/2017					<0.0025	<0.0025
3/12/2018	<0.0025	<0.0025	<0.0025	<0.0025		
3/14/2018					<0.0025	<0.0025
6/5/2018	<0.0025	<0.0025				
6/6/2018			<0.0025	<0.0025		
6/11/2018					<0.0025	<0.0025
10/16/2018	<0.0025	<0.0025				
10/17/2018			<0.0025	<0.0025		
10/18/2018					<0.0025	<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	0.00039 (J)	<0.0025					
3/1/2016			<0.0025	0.001 (J)	0.017	<0.0025	0.0007 (J)
5/2/2016	0.0013 (J)						
5/4/2016		<0.0025					0.001 (J)
5/5/2016			<0.0025	0.00064 (J)	0.012	<0.0025	
7/5/2016	0.00049 (J)						
7/7/2016			<0.0025	<0.0025	0.012	<0.0025	
7/8/2016		<0.0025					0.00057 (J)
9/6/2016	0.00062 (J)	0.00042 (J)	<0.0025				
9/7/2016				0.00044 (J)	0.018	<0.0025	0.00061 (J)
11/7/2016	0.00049 (J)						
11/9/2016					0.022	<0.0025	0.00055 (J)
11/10/2016		<0.0025	<0.0025	<0.0025			
1/9/2017	0.00045 (J)						
1/11/2017		<0.0025			0.025	<0.0025	0.00045 (J)
1/12/2017			<0.0025	<0.0025			
3/13/2017	0.00048 (J)						
3/14/2017		<0.0025			0.019	<0.0025	0.00059 (J)
3/15/2017			<0.0025	<0.0025			
5/15/2017	0.00052 (J)						
5/18/2017		<0.0025	<0.0025	<0.0025	0.023	<0.0025	0.00059 (J)
3/12/2018	0.00055 (J)						
3/14/2018		<0.0025	<0.0025	<0.0025	0.014	<0.0025	0.00044 (J)
6/5/2018	0.00051 (J)						
6/10/2018		<0.0025			0.029	<0.0025	0.0004 (J)
6/11/2018			<0.0025	<0.0025			
10/16/2018	0.00058 (J)						
10/18/2018		<0.0025		<0.0025	0.016	<0.0025	<0.0025
10/19/2018			<0.0025				

Time Series

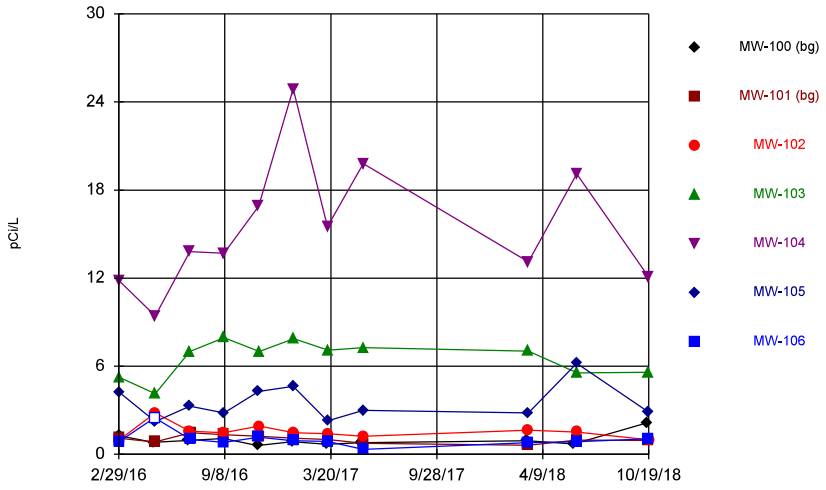
Constituent: Cobalt (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	0.00064 (J)	0.00023 (J)				
3/1/2016			0.00064 (J)	0.00071 (J)		
3/2/2016					0.00075 (J)	0.0047 (J)
5/2/2016	0.0014 (J)	0.00092 (J)		0.001 (J)		
5/3/2016			0.00079 (J)			
5/5/2016					0.0042	0.0047
7/5/2016	0.0027	0.0032	<0.0025	0.00055 (J)		
7/7/2016					0.0043	0.0041
9/6/2016	0.00062 (J)	<0.0025	0.00094 (J)	0.00057 (J)		
9/7/2016					0.0049	0.0047
11/7/2016	0.00058 (J)	<0.0025	0.00041 (J)	0.00047 (J)		
11/10/2016					0.004	0.0043
1/9/2017	0.00059 (J)	<0.0025	0.00074 (J)	0.00054 (J)		
1/12/2017					0.0045	0.0048
3/13/2017	0.0005 (J)	<0.0025	0.00091 (J)	0.0004 (J)		
3/14/2017					0.0039	
3/15/2017						0.0066
5/15/2017	0.00046 (J)	<0.0025	0.00075 (J)	0.00046 (J)		
5/18/2017					0.005	0.0065
3/12/2018	0.00055 (J)	<0.0025	0.00044 (J)	<0.0025		
3/14/2018					0.0038	0.012
6/5/2018	0.00052 (J)	<0.0025				
6/6/2018			0.0004 (J)	0.00048 (J)		
6/11/2018					0.0044	0.0096
10/16/2018	0.00045 (J)	<0.0025				
10/17/2018			<0.0025	0.00043 (J)		
10/18/2018					0.0036	0.025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

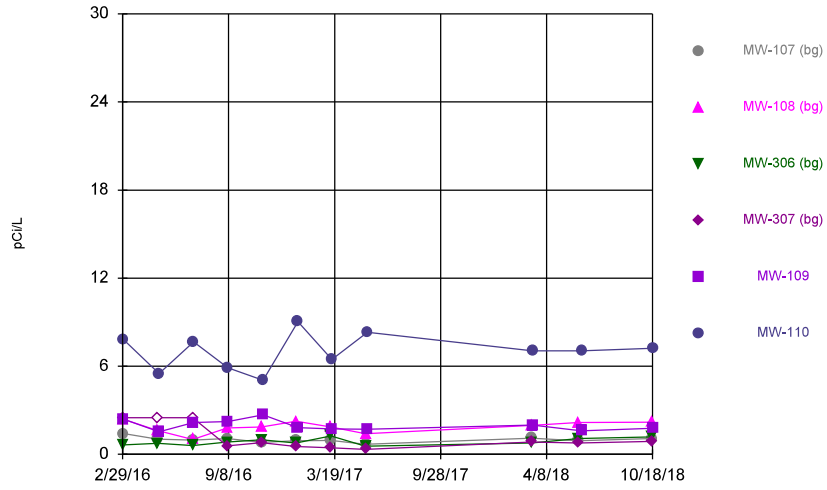
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

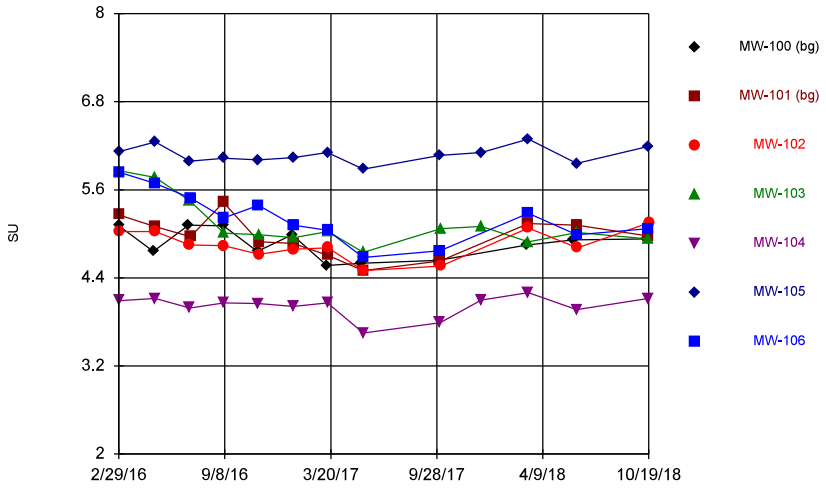
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

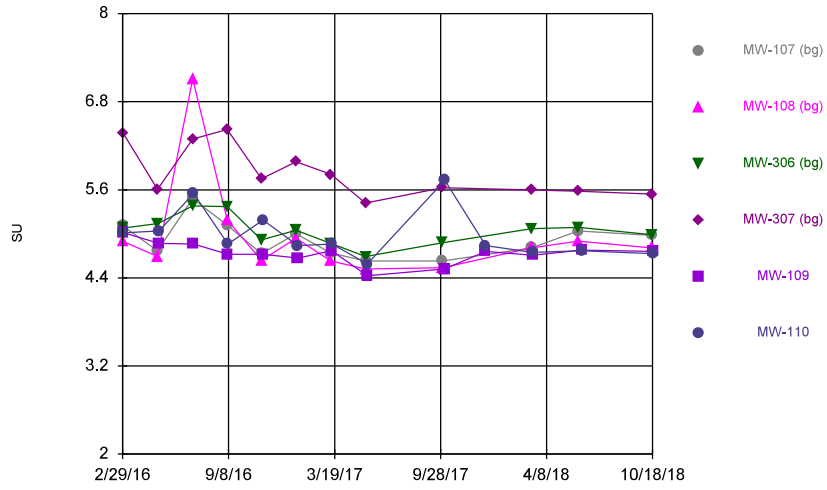
Time Series



Constituent: Field pH Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Field pH Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	1.27	1.09					
3/1/2016			0.996	5.24	11.8	4.21	0.872
5/2/2016	0.808						
5/4/2016		0.848					<5
5/5/2016			2.82	4.13	9.43	2.24	
7/5/2016	0.947						
7/7/2016			1.58	7.01	13.8	3.28	
7/8/2016		1.46					1.02
9/6/2016	1.07	1.34	1.46				
9/7/2016				7.94	13.7	2.83	0.826
11/7/2016	0.602						
11/9/2016					16.9	4.28	1.17
11/10/2016		1.23	1.92	7			
1/9/2017	0.865						
1/11/2017		1.11			24.9	4.62	0.924
1/12/2017			1.48	7.87			
3/13/2017	0.693						
3/14/2017		1.01			15.5	2.28	0.889
3/15/2017			1.41	7.1			
5/15/2017	0.786						
5/18/2017		0.745	1.23	7.26	19.8	3	0.338
3/12/2018	0.933						
3/14/2018		0.614	1.64	7.02	13.1	2.82	0.789
6/5/2018	0.713						
6/10/2018		0.959			19.1	6.2	0.852
6/11/2018			1.51	5.54			
10/16/2018	2.14						
10/18/2018		0.944		5.59	12.1	2.89	1.05
10/19/2018			1				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	1.42	2.4				
3/1/2016			0.647	<5		
3/2/2016					2.39	7.8
5/2/2016	1.03	1.62		<5		
5/3/2016			0.748			
5/5/2016					1.54	5.51
7/5/2016	0.961	1.01	0.591	<5		
7/7/2016					2.17	7.65
9/6/2016	1.07	1.8	0.831	0.566		
9/7/2016					2.24	5.9
11/7/2016	0.818	1.86	0.983	0.784		
11/10/2016					2.69	5.04
1/9/2017	0.934	2.25	0.767	0.541		
1/12/2017					1.81	9.04
3/13/2017	0.937	1.87	1.26	0.442		
3/14/2017					1.74	
3/15/2017						6.46
5/15/2017	0.685	1.4	0.553	0.345		
5/18/2017					1.7	8.31
3/12/2018	1.09	1.97	0.783	0.848		
3/14/2018					1.99	7.06
6/5/2018	0.927	2.17				
6/6/2018			1.08	0.78		
6/11/2018					1.59	7.06
10/16/2018	1.07	2.2				
10/17/2018			1.19	0.88		
10/18/2018					1.77	7.22

Time Series

Constituent: Field pH (SU) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	5.11	5.26					
3/1/2016			5.03	5.86	4.09	6.12	5.84
5/2/2016	4.76						
5/4/2016		5.1					5.69
5/5/2016			5.03	5.77	4.12	6.25	
7/5/2016	5.12						
7/7/2016			4.85	5.45	3.99	5.99	
7/8/2016		4.96					5.49
9/6/2016	5.11	5.43	4.84				
9/7/2016				5.01	4.06	6.03	5.22
11/7/2016	4.76						
11/9/2016					4.05	6.01	5.39
11/10/2016		4.89	4.72	4.99			
1/9/2017	4.99						
1/11/2017		4.87			4.01	6.04	5.12
1/12/2017			4.79	4.95			
3/13/2017	4.57						
3/14/2017		4.71			4.06	6.11	5.05
3/15/2017			4.81	5.03			
5/15/2017	4.6						
5/18/2017		4.5	4.5	4.75	3.65	5.88	4.68
10/2/2017	4.64						
10/5/2017		4.63			3.79	6.07	4.77
10/6/2017			4.56	5.07			
12/19/2017				5.1 (R)	4.1 (R)	6.11 (R)	
3/12/2018	4.85						
3/14/2018		5.14	5.08	4.89	4.2	6.29	5.28
6/5/2018	4.92						
6/10/2018		5.12			3.97	5.96	4.99
6/11/2018			4.81	5.02			
10/16/2018	4.93						
10/18/2018		4.97		4.93	4.12	6.19	5.07
10/19/2018			5.15				

Time Series

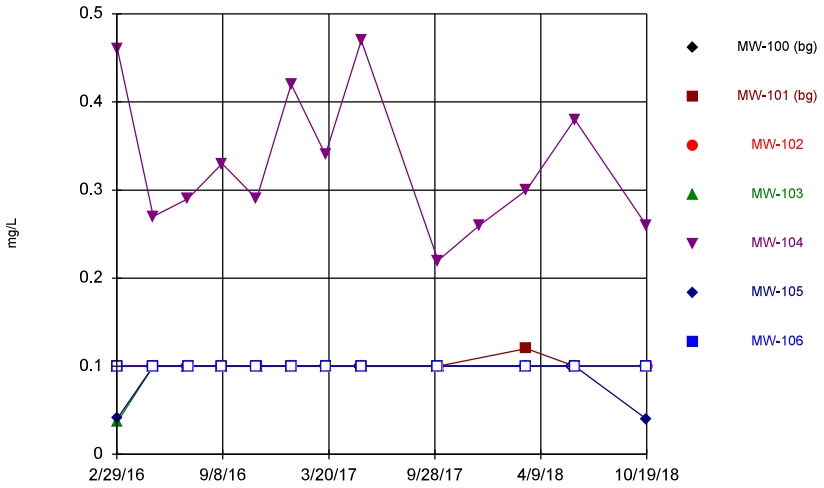
Constituent: Field pH (SU) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	5.11	4.9				
3/1/2016			5.08	6.37		
3/2/2016					5.015 (D)	5.015 (D)
5/2/2016	4.77	4.69		5.605 (D)		
5/3/2016			5.14			
5/5/2016					4.87	5.04
7/5/2016	5.48	7.11	5.38	6.29		
7/7/2016					4.86	5.55
9/6/2016	5.12	5.19	5.37	6.42		
9/7/2016					4.72	4.86
11/7/2016	4.73	4.64	4.92	5.75		
11/10/2016					4.72	5.19
1/9/2017	5	4.94	5.05	5.98		
1/12/2017					4.67	4.84
3/13/2017	4.74	4.63	4.87	5.81		
3/14/2017					4.77	
3/15/2017						4.86
5/15/2017	4.63	4.52	4.69	5.42		
5/18/2017					4.43	4.59
10/2/2017	4.63	4.54	4.88	5.63		
10/5/2017					4.52	
10/6/2017						5.73
12/19/2017					4.76 (R)	4.84 (R)
3/12/2018	4.81	4.81	5.07	5.6		
3/14/2018					4.71	4.75
6/5/2018	5.04	4.9				
6/6/2018			5.09	5.58		
6/11/2018					4.78	4.77
10/16/2018	4.98	4.81				
10/17/2018			4.99	5.54		
10/18/2018					4.76	4.73

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

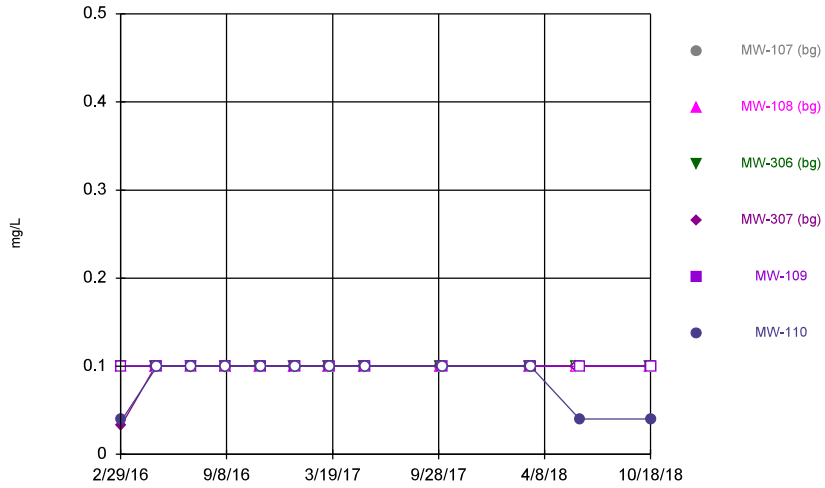
Time Series



Constituent: Fluoride Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

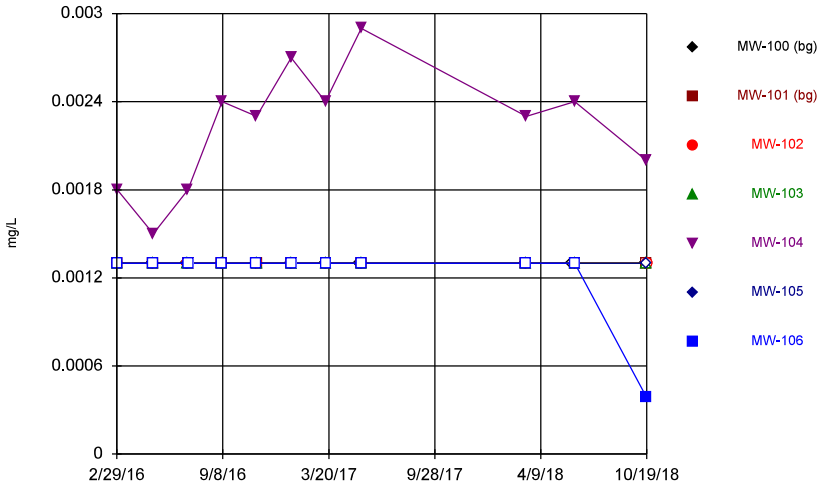
Time Series



Constituent: Fluoride Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

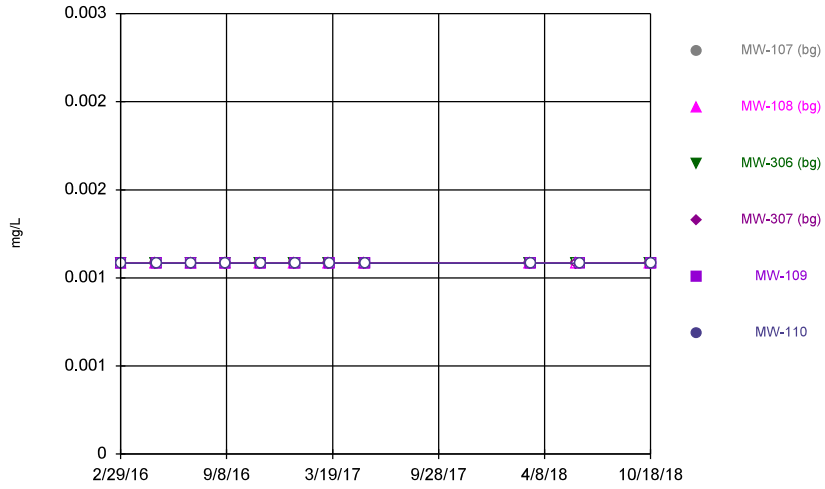
Time Series



Constituent: Lead Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.1	<0.1					
3/1/2016			<0.1	0.037 (J)	0.46	0.041 (J)	<0.1
5/2/2016	<0.1						
5/4/2016		<0.1					<0.1
5/5/2016			<0.1	<0.1	0.27	<0.1	
7/5/2016	<0.1						
7/7/2016			<0.1	<0.1	0.29	<0.1	
7/8/2016		<0.1					<0.1
9/6/2016	<0.1	<0.1	<0.1				
9/7/2016				<0.1	0.33	<0.1	<0.1
11/7/2016	<0.1						
11/9/2016					0.29	<0.1	<0.1
11/10/2016		<0.1	<0.1	<0.1			
1/9/2017	<0.1						
1/11/2017		<0.1			0.42	<0.1	<0.1
1/12/2017			<0.1	<0.1			
3/13/2017	<0.1						
3/14/2017		<0.1			0.34	<0.1	<0.1
3/15/2017			<0.1	<0.1			
5/15/2017	<0.1						
5/18/2017		<0.1	<0.1	<0.1	0.47	<0.1	<0.1
10/2/2017	<0.1						
10/5/2017		<0.1			0.22	<0.1	<0.1
10/6/2017			<0.1	<0.1			
12/19/2017					0.26 (R)		
3/12/2018	<0.1						
3/14/2018		0.12	<0.1	<0.1	0.3	<0.1	<0.1
6/5/2018	<0.1						
6/10/2018		<0.1			0.38	<0.1	<0.1
6/11/2018			<0.1	<0.1			
10/16/2018	<0.1						
10/18/2018		<0.1		<0.1	0.26	0.04 (J)	<0.1
10/19/2018			<0.1				

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.1	<0.1				
3/1/2016			<0.1	0.033 (J)		
3/2/2016					<0.1	0.039 (J)
5/2/2016	<0.1	<0.1		<0.1		
5/3/2016			<0.1			
5/5/2016					<0.1	<0.1
7/5/2016	<0.1	<0.1	<0.1	<0.1		
7/7/2016					<0.1	<0.1
9/6/2016	<0.1	<0.1	<0.1	<0.1		
9/7/2016					<0.1	<0.1
11/7/2016	<0.1	<0.1	<0.1	<0.1		
11/10/2016					<0.1	<0.1
1/9/2017	<0.1	<0.1	<0.1	<0.1		
1/12/2017					<0.1	<0.1
3/13/2017	<0.1	<0.1	<0.1	<0.1		
3/14/2017					<0.1	
3/15/2017						<0.1
5/15/2017	<0.1	<0.1	<0.1	<0.1		
5/18/2017					<0.1	<0.1
10/2/2017	<0.1	<0.1	<0.1	<0.1		
10/5/2017					<0.1	
10/6/2017						<0.1
3/12/2018	<0.1	<0.1	<0.1	<0.1		
3/14/2018					<0.1	<0.1
6/5/2018	<0.1	<0.1				
6/6/2018			<0.1	<0.1		
6/11/2018					<0.1	0.04 (J)
10/16/2018	<0.1	<0.1				
10/17/2018			<0.1	<0.1		
10/18/2018					<0.1	0.04 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0013	<0.0013					
3/1/2016			<0.0013	<0.0013	0.0018 (J)	<0.0013	<0.0013
5/2/2016	<0.0013						
5/4/2016		<0.0013					<0.0013
5/5/2016			<0.0013	<0.0013	0.0015	<0.0013	
7/5/2016	<0.0013						
7/7/2016			<0.0013	<0.0013	0.0018	<0.0013	
7/8/2016		<0.0013					<0.0013
9/6/2016	<0.0013	<0.0013	<0.0013				
9/7/2016				<0.0013	0.0024	<0.0013	<0.0013
11/7/2016	<0.0013						
11/9/2016					0.0023	<0.0013	<0.0013
11/10/2016		<0.0013	<0.0013	<0.0013			
1/9/2017	<0.0013						
1/11/2017		<0.0013			0.0027	<0.0013	<0.0013
1/12/2017			<0.0013	<0.0013			
3/13/2017	<0.0013						
3/14/2017		<0.0013			0.0024	<0.0013	<0.0013
3/15/2017			<0.0013	<0.0013			
5/15/2017	<0.0013						
5/18/2017		<0.0013	<0.0013	<0.0013	0.0029	<0.0013	<0.0013
3/12/2018	<0.0013						
3/14/2018		<0.0013	<0.0013	<0.0013	0.0023	<0.0013	<0.0013
6/5/2018	<0.0013						
6/10/2018		<0.0013			0.0024	<0.0013	<0.0013
6/11/2018			<0.0013	<0.0013			
10/16/2018	<0.0013						
10/18/2018		<0.0013		<0.0013	0.002	<0.0013	0.00039 (J)
10/19/2018			<0.0013				

Time Series

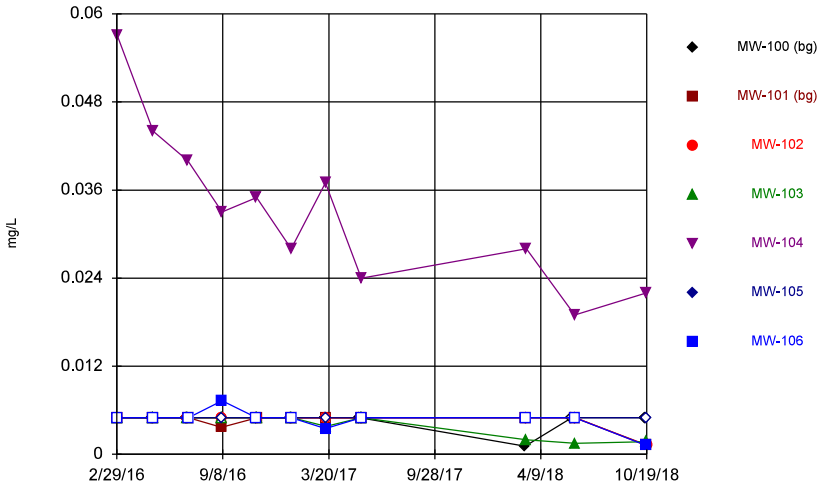
Constituent: Lead (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0013	<0.0013				
3/1/2016			<0.0013	<0.0013		
3/2/2016					<0.0013	<0.0013
5/2/2016	<0.0013	<0.0013		<0.0013		
5/3/2016			<0.0013			
5/5/2016					<0.0013	<0.0013
7/5/2016	<0.0013	<0.0013	<0.0013	<0.0013		
7/7/2016					<0.0013	<0.0013
9/6/2016	<0.0013	<0.0013	<0.0013	<0.0013		
9/7/2016					<0.0013	<0.0013
11/7/2016	<0.0013	<0.0013	<0.0013	<0.0013		
11/10/2016					<0.0013	<0.0013
1/9/2017	<0.0013	<0.0013	<0.0013	<0.0013		
1/12/2017					<0.0013	<0.0013
3/13/2017	<0.0013	<0.0013	<0.0013	<0.0013		
3/14/2017					<0.0013	
3/15/2017						<0.0013
5/15/2017	<0.0013	<0.0013	<0.0013	<0.0013		
5/18/2017					<0.0013	<0.0013
3/12/2018	<0.0013	<0.0013	<0.0013	<0.0013		
3/14/2018					<0.0013	<0.0013
6/5/2018	<0.0013	<0.0013				
6/6/2018			<0.0013	<0.0013		
6/11/2018					<0.0013	<0.0013
10/16/2018	<0.0013	<0.0013				
10/17/2018			<0.0013	<0.0013		
10/18/2018					<0.0013	<0.0013

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

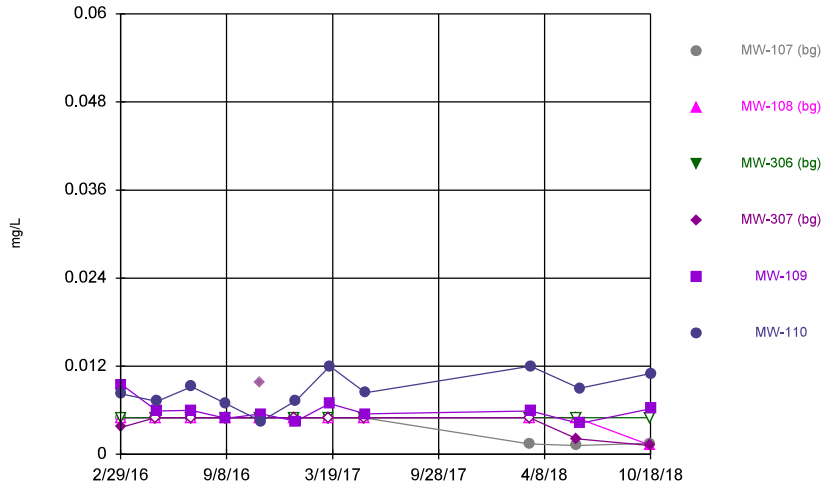
Time Series



Constituent: Lithium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

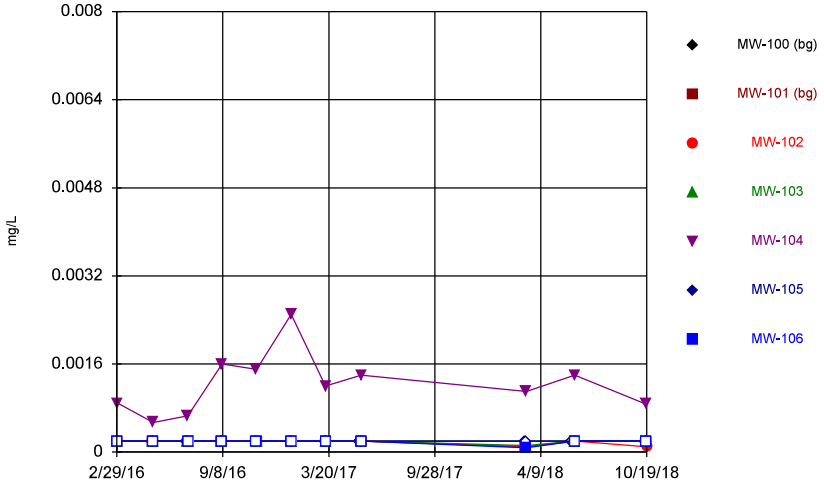
Time Series



Constituent: Lithium Analysis Run 2/6/2019 4:12 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

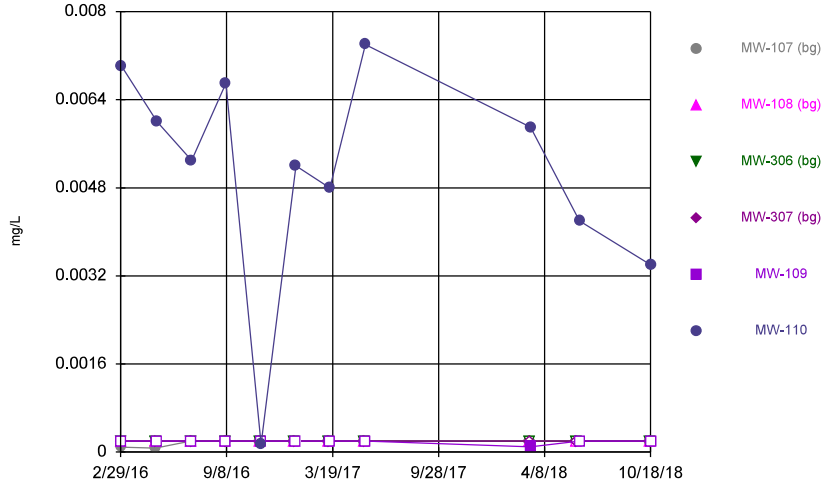
Time Series



Constituent: Mercury Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.005	<0.005					
3/1/2016			<0.005	<0.005	0.057	<0.005	<0.005
5/2/2016	<0.005						
5/4/2016		<0.005					<0.005
5/5/2016			<0.005	<0.005	0.044	<0.005	
7/5/2016	<0.005						
7/7/2016			<0.005	<0.005	0.04	<0.005	
7/8/2016		<0.005					<0.005
9/6/2016	<0.005	0.0037 (J)	<0.005				
9/7/2016				<0.005	0.033	<0.005	0.0073
11/7/2016	<0.005						
11/9/2016					0.035	<0.005	<0.005
11/10/2016		<0.005	<0.005	<0.005			
1/9/2017	<0.005						
1/11/2017		<0.005			0.028	<0.005	<0.005
1/12/2017			<0.005	<0.005			
3/13/2017	<0.005						
3/14/2017		<0.005			0.037	<0.005	0.0035 (J)
3/15/2017			<0.005	0.0038 (J)			
5/15/2017	<0.005						
5/18/2017		<0.005	<0.005	<0.005	0.024	<0.005	<0.005
3/12/2018	0.0011 (J)						
3/14/2018		<0.005	<0.005	0.002 (J)	0.028	<0.005	<0.005
6/5/2018	<0.005						
6/10/2018		<0.005			0.019	<0.005	<0.005
6/11/2018			<0.005	0.0015 (J)			
10/16/2018	<0.005						
10/18/2018		0.0013 (J)		0.0017 (J)	0.022	<0.005	0.0012 (J)
10/19/2018			0.0012 (J)				

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.005	<0.005				
3/1/2016			<0.005	0.0037		
3/2/2016					0.0095 (J)	0.0082 (J)
5/2/2016	<0.005	<0.005		<0.005		
5/3/2016			<0.005			
5/5/2016					0.0059	0.0072
7/5/2016	<0.005	<0.005	<0.005	<0.005		
7/7/2016					0.006	0.0092
9/6/2016	<0.005	<0.005	<0.005	<0.005		
9/7/2016					0.0049 (J)	0.0069
11/7/2016	<0.005	<0.005	<0.005	0.0097 (o)		
11/10/2016					0.0055	0.0045 (J)
1/9/2017	<0.005	<0.005	<0.005	<0.005		
1/12/2017					0.0045 (J)	0.0073
3/13/2017	<0.005	<0.005	<0.005	<0.005		
3/14/2017					0.0069	
3/15/2017						0.012
5/15/2017	<0.005	<0.005	<0.005	<0.005		
5/18/2017					0.0055	0.0084
3/12/2018	0.0014 (J)	<0.005	<0.005	<0.005		
3/14/2018					0.0059	0.012
6/5/2018	0.0012 (J)	<0.005				
6/6/2018			<0.005	0.0021 (J)		
6/11/2018					0.0042 (J)	0.009
10/16/2018	0.0015 (J)	0.0013 (J)				
10/17/2018			<0.005	0.0012 (J)		
10/18/2018					0.0062	0.011

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0002	<0.0002					
3/1/2016			<0.0002	<0.0002	0.00089	<0.0002	<0.0002
5/2/2016	<0.0002						
5/4/2016		<0.0002					<0.0002
5/5/2016			<0.0002	<0.0002	0.00054	<0.0002	
7/5/2016	<0.0002						
7/7/2016			<0.0002	<0.0002 (*)	0.00066 (V)	<0.0002	
7/8/2016		<0.0002 (*)					<0.0002 (*)
9/6/2016	<0.0002 (*)	<0.0002	<0.0002				
9/7/2016				<0.0002	0.0016	<0.0002	<0.0002
11/7/2016	<0.0002						
11/9/2016					0.0015	<0.0002	<0.0002
11/10/2016		<0.0002	<0.0002	<0.0002			
1/9/2017	<0.0002 (*)						
1/11/2017		<0.0002			0.0025	<0.0002	<0.0002
1/12/2017			<0.0002	<0.0002			
3/13/2017	<0.0002						
3/14/2017		<0.0002 (*)			0.0012	<0.0002	<0.0002
3/15/2017			<0.0002	<0.0002 (*)			
5/15/2017	<0.0002						
5/18/2017		<0.0002	<0.0002	<0.0002	0.0014	<0.0002	<0.0002
3/12/2018	<0.0002						
3/14/2018		9.3E-05 (J)	9.4E-05 (J)	0.00012 (J)	0.0011	<0.0002	8E-05 (J)
6/5/2018	<0.0002						
6/10/2018		<0.0002			0.0014	<0.0002	<0.0002
6/11/2018			<0.0002	<0.0002			
10/16/2018	<0.0002						
10/18/2018		<0.0002		<0.0002	0.00087	<0.0002	<0.0002
10/19/2018			9.4E-05 (J)				

Time Series

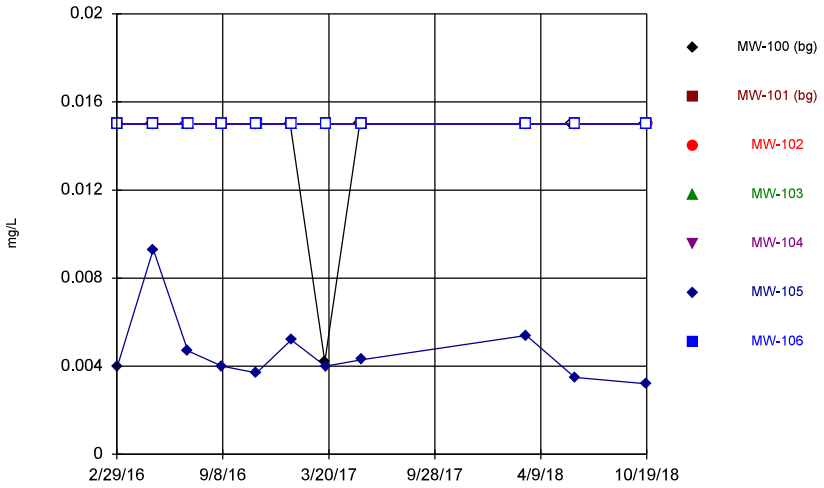
Constituent: Mercury (mg/L) Analysis Run 2/6/2019 4:14 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	9.1E-05 (J)	<0.0002				
3/1/2016			<0.0002	<0.0002		
3/2/2016					<0.0002	0.007
5/2/2016	7.4E-05 (J)	<0.0002		<0.0002		
5/3/2016			<0.0002			
5/5/2016					<0.0002	0.006
7/5/2016	<0.0002	<0.0002	<0.0002	<0.0002		
7/7/2016					<0.0002 (*)	0.0053
9/6/2016	<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002 (*)		
9/7/2016					<0.0002	0.0067
11/7/2016	<0.0002	<0.0002	<0.0002	<0.0002		
11/10/2016					<0.0002	0.00014 (J)
1/9/2017	<0.0002 (*)	<0.0002 (*)	<0.0002 (*)	<0.0002 (*)		
1/12/2017					<0.0002	0.0052
3/13/2017	<0.0002	<0.0002	<0.0002	<0.0002		
3/14/2017					<0.0002	
3/15/2017						0.0048
5/15/2017	<0.0002	<0.0002	<0.0002	<0.0002		
5/18/2017					<0.0002	0.0074
3/12/2018	<0.0002	<0.0002	<0.0002	<0.0002		
3/14/2018					9.7E-05 (J)	0.0059
6/5/2018	<0.0002	<0.0002				
6/6/2018			<0.0002	<0.0002		
6/11/2018					<0.0002	0.0042
10/16/2018	<0.0002	<0.0002				
10/17/2018			<0.0002	<0.0002		
10/18/2018					<0.0002	0.0034

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

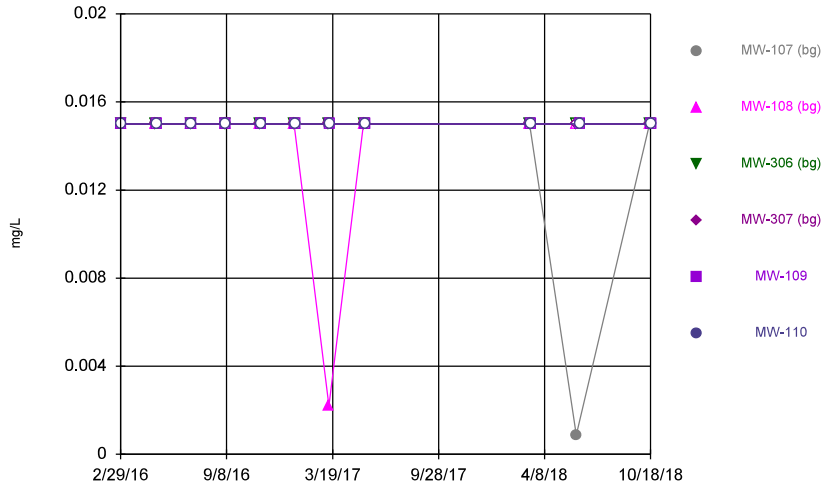
Time Series



Constituent: Molybdenum Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

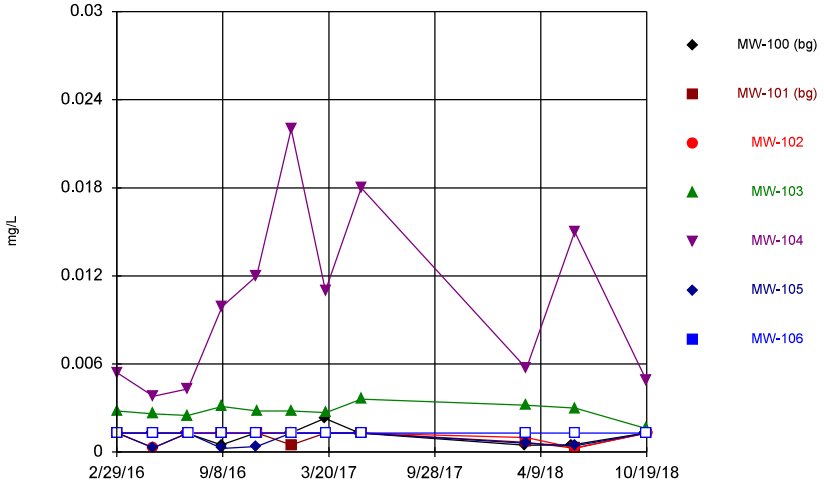
Time Series



Constituent: Molybdenum Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

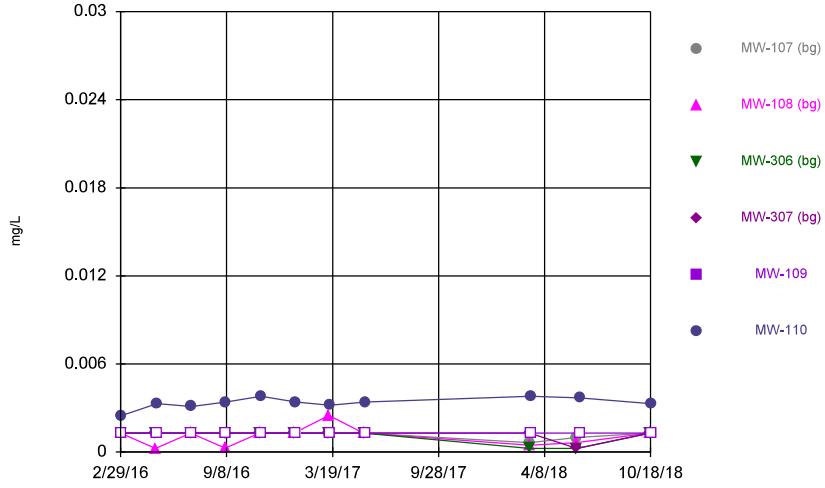
Time Series



Constituent: Selenium Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.015	<0.015					
3/1/2016			<0.015	<0.015	<0.015	0.004 (J)	<0.015
5/2/2016	<0.015						
5/4/2016		<0.015					<0.015
5/5/2016			<0.015	<0.015	<0.015	0.0093 (J)	
7/5/2016	<0.015						
7/7/2016			<0.015	<0.015	<0.015	0.0047 (J)	
7/8/2016		<0.015					<0.015
9/6/2016	<0.015	<0.015	<0.015				
9/7/2016				<0.015	<0.015	0.004 (J)	<0.015
11/7/2016	<0.015						
11/9/2016					<0.015	0.0037 (J)	<0.015
11/10/2016		<0.015	<0.015	<0.015			
1/9/2017	<0.015						
1/11/2017		<0.015			<0.015	0.0052 (J)	<0.015
1/12/2017			<0.015	<0.015			
3/13/2017	0.0042 (J)						
3/14/2017		<0.015			<0.015	0.004 (J)	<0.015
3/15/2017			<0.015	<0.015			
5/15/2017	<0.015						
5/18/2017		<0.015	<0.015	<0.015	<0.015	0.0043 (J)	<0.015
3/12/2018	<0.015						
3/14/2018		<0.015	<0.015	<0.015	<0.015	0.0054 (J)	<0.015
6/5/2018	<0.015						
6/10/2018		<0.015			<0.015	0.0035 (J)	<0.015
6/11/2018			<0.015	<0.015			
10/16/2018	<0.015						
10/18/2018		<0.015		<0.015	<0.015	0.0032 (J)	<0.015
10/19/2018			<0.015				

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.015	<0.015				
3/1/2016			<0.015	<0.015		
3/2/2016					<0.015	<0.015
5/2/2016	<0.015	<0.015		<0.015		
5/3/2016			<0.015			
5/5/2016					<0.015	<0.015
7/5/2016	<0.015	<0.015	<0.015	<0.015		
7/7/2016					<0.015	<0.015
9/6/2016	<0.015	<0.015	<0.015	<0.015		
9/7/2016					<0.015	<0.015
11/7/2016	<0.015	<0.015	<0.015	<0.015		
11/10/2016					<0.015	<0.015
1/9/2017	<0.015	<0.015	<0.015	<0.015		
1/12/2017					<0.015	<0.015
3/13/2017	<0.015	0.0022 (J)	<0.015	<0.015		
3/14/2017					<0.015	
3/15/2017						<0.015
5/15/2017	<0.015	<0.015	<0.015	<0.015		
5/18/2017					<0.015	<0.015
3/12/2018	<0.015	<0.015	<0.015	<0.015		
3/14/2018					<0.015	<0.015
6/5/2018	0.00088 (J)	<0.015				
6/6/2018			<0.015	<0.015		
6/11/2018					<0.015	<0.015
10/16/2018	<0.015	<0.015				
10/17/2018			<0.015	<0.015		
10/18/2018					<0.015	<0.015

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0013	<0.0013					
3/1/2016			<0.0013	0.0028 (J)	0.0054 (J)	<0.0013	<0.0013
5/2/2016	<0.0013						
5/4/2016		<0.0013					<0.0013
5/5/2016			0.00029 (J)	0.0026	0.0038	0.0003 (J)	
7/5/2016	<0.0013						
7/7/2016			<0.0013 (*)	0.0025	0.0043	<0.0013	
7/8/2016		<0.0013					<0.0013
9/6/2016	0.00049 (J)	<0.0013	<0.0013				
9/7/2016				0.0031	0.0099	0.00026 (J)	<0.0013
11/7/2016	<0.0013						
11/9/2016					0.012	0.00038 (J)	<0.0013
11/10/2016		<0.0013	<0.0013	0.0028			
1/9/2017	<0.0013						
1/11/2017		0.00049 (J)			0.022	<0.0013	<0.0013
1/12/2017			<0.0013	0.0028			
3/13/2017	0.0023						
3/14/2017		<0.0013			0.011	<0.0013	<0.0013
3/15/2017			<0.0013	0.0027			
5/15/2017	<0.0013						
5/18/2017		<0.0013	<0.0013	0.0036	0.018	<0.0013	<0.0013
3/12/2018	0.00046 (J)						
3/14/2018		0.00067 (J)	0.001 (J)	0.0032	0.0057	0.0006 (J)	<0.0013
6/5/2018	0.00049 (J)						
6/10/2018		0.00028 (J)			0.015	0.00043 (J)	<0.0013
6/11/2018			0.00028 (J)	0.003			
10/16/2018	<0.0013						
10/18/2018		<0.0013		0.0016	0.0049	<0.0013	<0.0013
10/19/2018			<0.0013				

Time Series

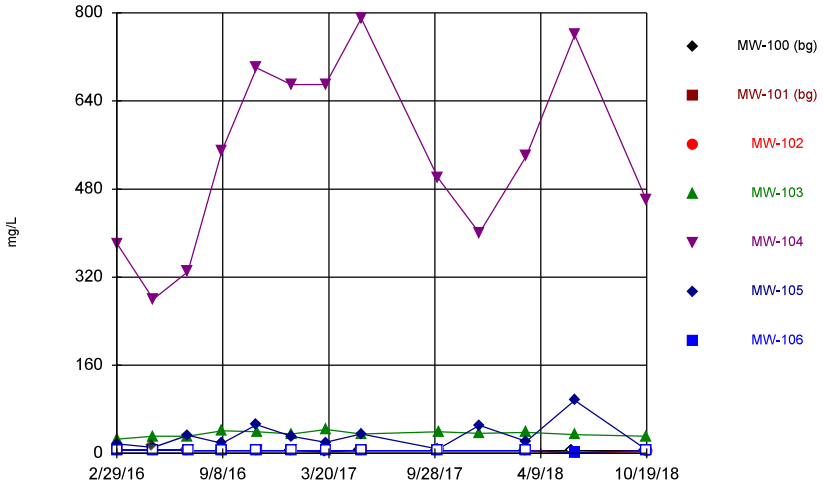
Constituent: Selenium (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0013	<0.0013				
3/1/2016			<0.0013	<0.0013		
3/2/2016					<0.0013	0.0025 (J)
5/2/2016	<0.0013	0.00025 (J)		<0.0013		
5/3/2016			<0.0013			
5/5/2016					<0.0013	0.0033
7/5/2016	<0.0013	<0.0013	<0.0013	<0.0013		
7/7/2016					<0.0013	0.0031
9/6/2016	<0.0013	0.00027 (J)	<0.0013	<0.0013		
9/7/2016					<0.0013	0.0034
11/7/2016	<0.0013	<0.0013	<0.0013	<0.0013		
11/10/2016					<0.0013	0.0038
1/9/2017	<0.0013	<0.0013	<0.0013	<0.0013		
1/12/2017					<0.0013	0.0034
3/13/2017	<0.0013	0.0025	<0.0013	<0.0013		
3/14/2017					<0.0013	
3/15/2017						0.0032
5/15/2017	<0.0013	<0.0013	<0.0013	<0.0013		
5/18/2017					<0.0013	0.0034
3/12/2018	0.00064 (J)	0.00047 (J)	0.00026 (J)	<0.0013		
3/14/2018					<0.0013	0.0038
6/5/2018	0.00098 (J)	0.00065 (J)				
6/6/2018			0.00025 (J)	0.00026 (J)		
6/11/2018					<0.0013	0.0037
10/16/2018	<0.0013	<0.0013				
10/17/2018			<0.0013	<0.0013		
10/18/2018					<0.0013	0.0033

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

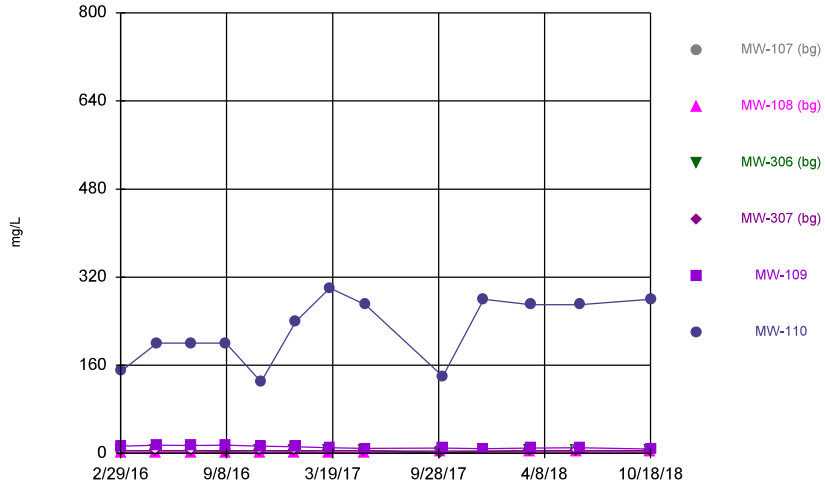
Time Series



Constituent: Sulfate Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

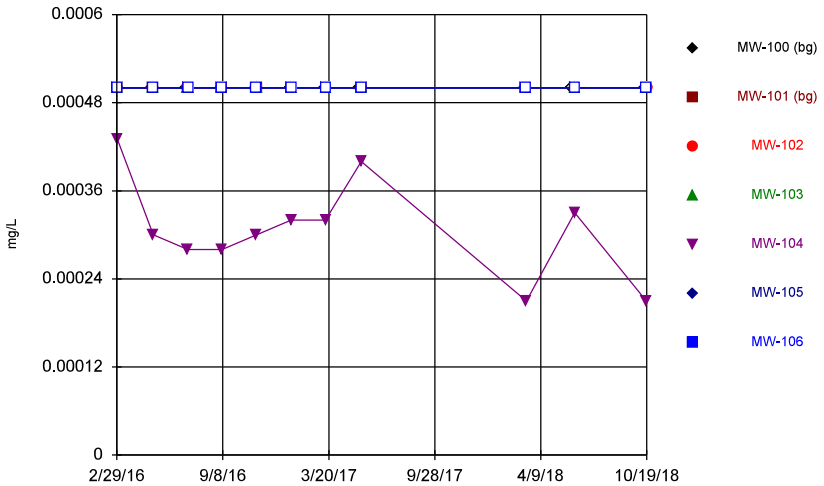
Time Series



Constituent: Sulfate Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

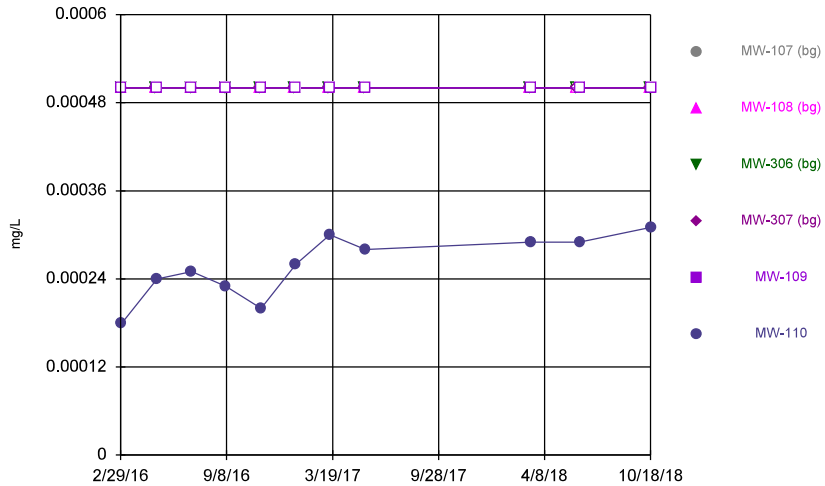
Time Series



Constituent: Thallium Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<5	<5					
3/1/2016			<5	26	380	17	<5
5/2/2016	15 (o)						
5/4/2016		<5					<5
5/5/2016			<5	31	280	11	
7/5/2016	<5						
7/7/2016			<5	31	330	33	
7/8/2016		<5					<5
9/6/2016	<5	<5	<5				
9/7/2016				41	550	18	<5
11/7/2016	<5						
11/9/2016					700	52	<5
11/10/2016		<5	<5	39			
1/9/2017	<5						
1/11/2017		<5			670	31	<5
1/12/2017			<5	35			
3/13/2017	2.5 (J)						
3/14/2017		<5			670	20	<5
3/15/2017			<5 (*)	43			
5/15/2017	<5						
5/18/2017		<5 (X)	<5 (X)	35	790	35	<5 (X)
10/2/2017	<5						
10/5/2017		<5			500	7.7	<5
10/6/2017			<5	39			
12/19/2017				36 (R)	400 (R)	51 (R)	
3/12/2018	<5						
3/14/2018		<5	<5	38	540	22	<5
6/5/2018	<5						
6/10/2018		1.5 (J)			760	96	1.4 (J)
6/11/2018			1.7 (J)	34			
10/16/2018	<5						
10/18/2018		<5		31	460	6.6	<5
10/19/2018			3.4 (J)				

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<5	1.6 (J)				
3/1/2016			<5	<5		
3/2/2016					13	150
5/2/2016	<5	2.1 (J)		<5		
5/3/2016			<5			
5/5/2016					15	200
7/5/2016	<5	2 (J)	<5	<5		
7/7/2016					14	200
9/6/2016	<5	1.8 (J)	<5	3.7 (J)		
9/7/2016					15	200
11/7/2016	<5	1.7 (J)	<5	<5		
11/10/2016					13	130
1/9/2017	2.6 (J)	1.5 (J)	<5	<5		
1/12/2017					12	240
3/13/2017	<5	2.2 (J)	<5	<5		
3/14/2017					10 (V)	
3/15/2017						300
5/15/2017	<5	1.9 (J)	<5	<5		
5/18/2017					8.7	270
10/2/2017	<5	3.4 (J)	1.5 (J)	1.7 (J)		
10/5/2017					9.8	
10/6/2017						140
12/19/2017					8.4 (R)	280 (R)
3/12/2018	<5	2.6 (J)	<5	<5		
3/14/2018					9.7	270
6/5/2018	<5	2.6 (J)				
6/6/2018			<5	<5		
6/11/2018					10	270
10/16/2018	<5	2.8 (J)				
10/17/2018			<5	<5		
10/18/2018					8.1	280

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	<0.0005	<0.0005					
3/1/2016			<0.0005	<0.0005	0.00043 (J)	<0.0005	<0.0005
5/2/2016	<0.0005						
5/4/2016		<0.0005					<0.0005
5/5/2016			<0.0005	<0.0005	0.0003 (J)	<0.0005	
7/5/2016	<0.0005						
7/7/2016			<0.0005	<0.0005	0.00028 (J)	<0.0005	
7/8/2016		<0.0005					<0.0005
9/6/2016	<0.0005	<0.0005	<0.0005				
9/7/2016				<0.0005	0.00028 (J)	<0.0005	<0.0005
11/7/2016	<0.0005						
11/9/2016					0.0003 (J)	<0.0005	<0.0005
11/10/2016		<0.0005	<0.0005	<0.0005			
1/9/2017	<0.0005						
1/11/2017		<0.0005			0.00032 (J)	<0.0005	<0.0005
1/12/2017			<0.0005	<0.0005			
3/13/2017	<0.0005						
3/14/2017		<0.0005			0.00032 (J)	<0.0005	<0.0005
3/15/2017			<0.0005	<0.0005			
5/15/2017	<0.0005						
5/18/2017		<0.0005	<0.0005	<0.0005	0.0004 (J)	<0.0005	<0.0005
3/12/2018	<0.0005						
3/14/2018		<0.0005	<0.0005	<0.0005	0.00021 (J)	<0.0005	<0.0005
6/5/2018	<0.0005						
6/10/2018		<0.0005			0.00033 (J)	<0.0005	<0.0005
6/11/2018			<0.0005	<0.0005			
10/16/2018	<0.0005						
10/18/2018		<0.0005		<0.0005	0.00021 (J)	<0.0005	<0.0005
10/19/2018			<0.0005				

Time Series

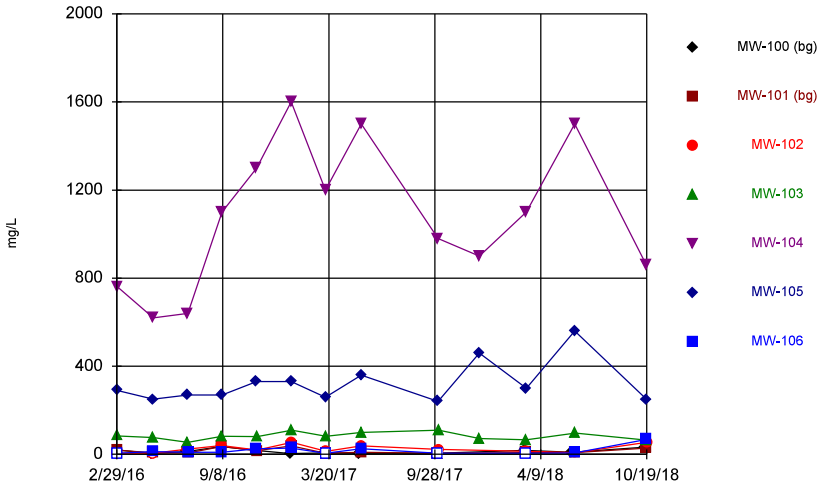
Constituent: Thallium (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<0.0005	<0.0005				
3/1/2016			<0.0005	<0.0005		
3/2/2016					<0.0005	0.00018 (J)
5/2/2016	<0.0005	<0.0005		<0.0005		
5/3/2016			<0.0005			
5/5/2016					<0.0005	0.00024 (J)
7/5/2016	<0.0005	<0.0005	<0.0005	<0.0005		
7/7/2016					<0.0005	0.00025 (J)
9/6/2016	<0.0005	<0.0005	<0.0005	<0.0005		
9/7/2016					<0.0005	0.00023 (J)
11/7/2016	<0.0005	<0.0005	<0.0005	<0.0005		
11/10/2016					<0.0005	0.0002 (J)
1/9/2017	<0.0005	<0.0005	<0.0005	<0.0005		
1/12/2017					<0.0005	0.00026 (J)
3/13/2017	<0.0005	<0.0005	<0.0005	<0.0005		
3/14/2017					<0.0005	
3/15/2017						0.0003 (J)
5/15/2017	<0.0005	<0.0005	<0.0005	<0.0005		
5/18/2017					<0.0005	0.00028 (J)
3/12/2018	<0.0005	<0.0005	<0.0005	<0.0005		
3/14/2018					<0.0005	0.00029 (J)
6/5/2018	<0.0005	<0.0005				
6/6/2018			<0.0005	<0.0005		
6/11/2018					<0.0005	0.00029 (J)
10/16/2018	<0.0005	<0.0005				
10/17/2018			<0.0005	<0.0005		
10/18/2018					<0.0005	0.00031 (J)

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

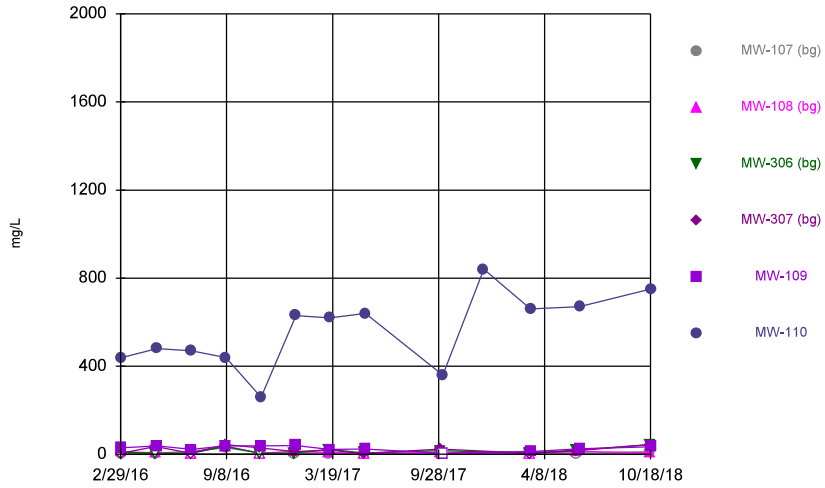
Time Series



Constituent: Total Dissolved Solids Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 2/6/2019 4:13 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-102	MW-103	MW-104	MW-105	MW-106
2/29/2016	20	20					
3/1/2016			<5	84	760	290	<5
5/2/2016	<5						
5/4/2016		6					12
5/5/2016			<5	76	620	250	
7/5/2016	12						
7/7/2016			24	54	640	270	
7/8/2016		6					10
9/6/2016	36	36	40				
9/7/2016				82	1100	270	10
11/7/2016	18						
11/9/2016					1300	330	26
11/10/2016		16	20	80			
1/9/2017	4 (J)						
1/11/2017		38			1600	330	28
1/12/2017			54	110			
3/13/2017	6						
3/14/2017		<5			1200	260	<5
3/15/2017			14	82			
5/15/2017	<5						
5/18/2017		10	38	100	1500	360	26
10/2/2017	<5						
10/5/2017		<5			980	240	<5
10/6/2017			22	110			
12/19/2017				72 (R)	900 (R)	460 (R)	
3/12/2018	18						
3/14/2018		8	14	66	1100	300	<5
6/5/2018	10						
6/10/2018		8			1500	560	6
6/11/2018			8	96			
10/16/2018	32						
10/18/2018		28		64	860	250	68
10/19/2018			54				

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series

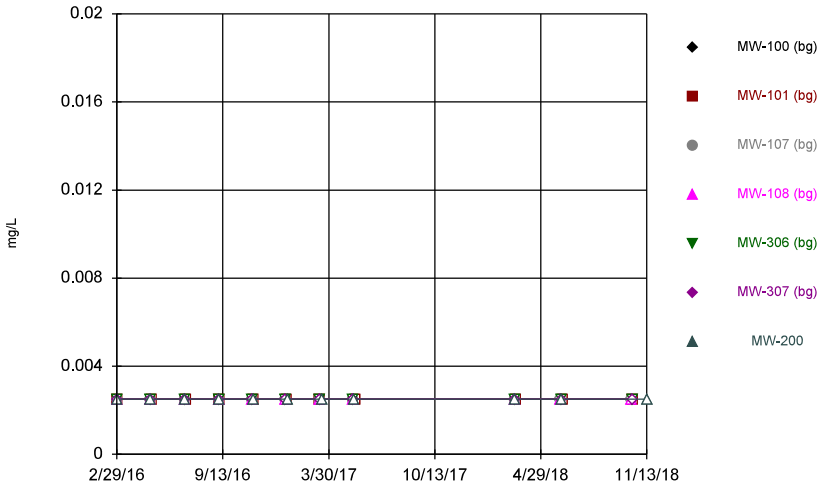
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-109	MW-110
2/29/2016	<5	12				
3/1/2016			10	<5		
3/2/2016					30	440
5/2/2016	<5	6		36		
5/3/2016			<5			
5/5/2016					38	480
7/5/2016	14	<5	<5	<5		
7/7/2016					22	470
9/6/2016	30	38	36	44		
9/7/2016					38	440
11/7/2016	8	<5	<5	30		
11/10/2016					38	260
1/9/2017	<5	14	<5	12		
1/12/2017					40	630
3/13/2017	<5	8	22	20		
3/14/2017					22	
3/15/2017						620
5/15/2017	<5	<5	6	4 (J)		
5/18/2017					24	640
10/2/2017	<5	6	16	24		
10/5/2017					<5	
10/6/2017						360
12/19/2017						840 (R)
3/12/2018	14	<5	<5	<5		
3/14/2018					12	660
6/5/2018	<5	14				
6/6/2018			20	16		
6/11/2018					26	670
10/16/2018	12	6				
10/17/2018			44	44		
10/18/2018					34	750

200 Series

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

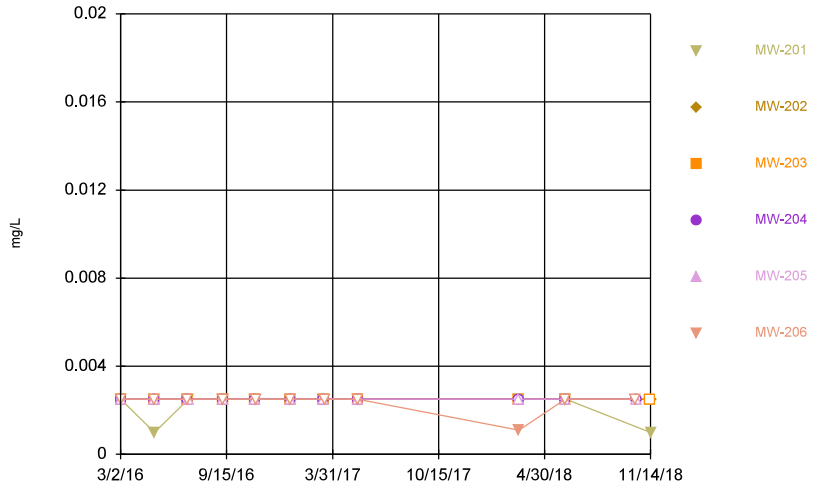
Time Series



Constituent: Antimony Analysis Run 2/11/2019 11:18 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

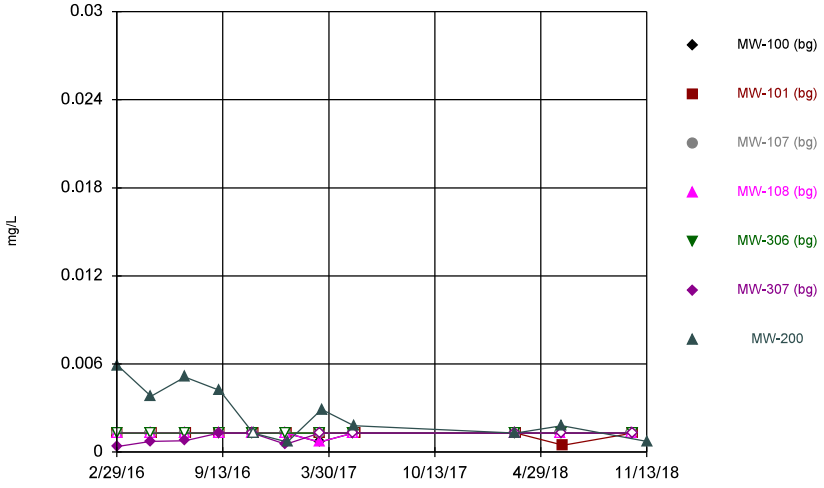
Time Series



Constituent: Antimony Analysis Run 2/11/2019 11:18 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

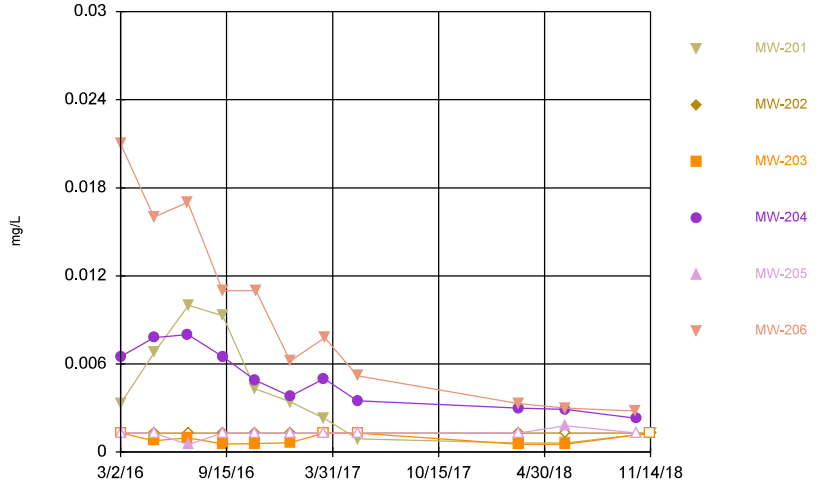
Time Series



Constituent: Arsenic Analysis Run 2/11/2019 11:18 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 2/11/2019 11:18 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/2/2016							<0.0025
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		<0.0025
5/4/2016		<0.0025					
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/8/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/11/2017		<0.0025					
1/12/2017							<0.0025
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/17/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	
6/8/2018							<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					
11/13/2018							<0.0025

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.0025	<0.0025		<0.0025	<0.0025	<0.0025
3/3/2016			<0.0025			
5/3/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	0.001 (J)					
7/5/2016			<0.0025	<0.0025		<0.0025
7/6/2016	<0.0025	<0.0025			<0.0025	
9/8/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/8/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016						<0.0025
1/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
1/13/2017	<0.0025	<0.0025				
3/16/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
3/17/2017						<0.0025
5/17/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/13/2018		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2018	<0.0025					0.0011 (J)
6/8/2018			<0.0025	<0.0025	<0.0025	<0.0025
6/9/2018	<0.0025	<0.0025				
10/17/2018						<0.0025
10/19/2018				<0.0025	<0.0025	
11/13/2018			<0.0025			
11/14/2018	0.001 (J)	<0.0025				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	0.00038 (J)	
3/2/2016							0.0059 (J)
5/2/2016	<0.0013		<0.0013	<0.0013		0.00073 (J)	
5/3/2016					<0.0013		0.0038
5/4/2016		<0.0013					
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	0.00077 (J)	0.0051
7/8/2016		<0.0013					
9/6/2016	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	
9/8/2016							0.0042 (J)
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/9/2016							<0.0013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	0.00053 (J)	
1/11/2017		<0.0013					
1/12/2017							0.00068 (J)
3/13/2017	0.00069 (J)		<0.0013	0.00069 (J)	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/17/2017							0.0029
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							0.0018
5/18/2017		<0.0013					
3/12/2018	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/13/2018							0.0013
3/14/2018		<0.0013					
6/5/2018	<0.0013		<0.0013	<0.0013			
6/6/2018					<0.0013	<0.0013	
6/8/2018							0.0018
6/10/2018		0.00046 (J)					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					
11/13/2018							0.00072 (J)

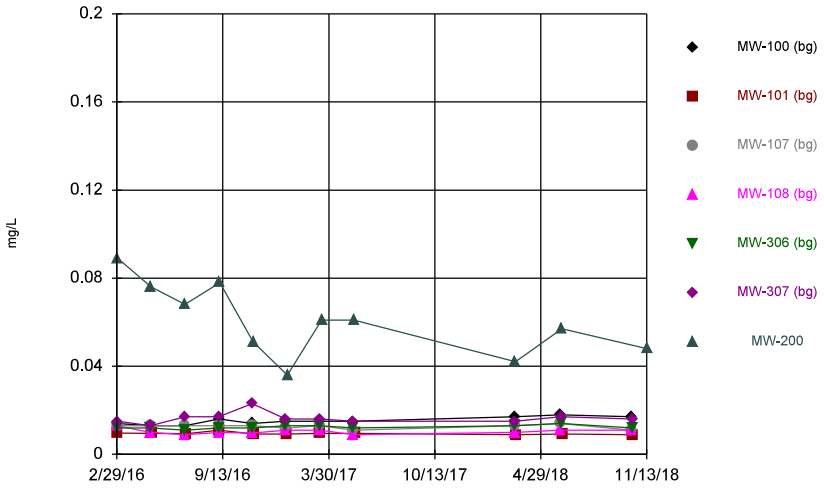
Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.0033 (J)	<0.0013		0.0065	<0.0013	0.021
3/3/2016			<0.0013			
5/3/2016		<0.0013	0.00077 (J)	0.0078	<0.0013	0.016
5/4/2016	0.0068					
7/5/2016			0.00096 (J)	0.008		0.017
7/6/2016	0.01	<0.0013			0.00051 (J)	
9/8/2016	0.0093	<0.0013	0.00056 (J)	0.0065	<0.0013	0.011
11/8/2016	0.0043 (J)	<0.0013	0.00058 (J)	0.0049	<0.0013	
11/9/2016						0.011
1/12/2017			0.00064 (J)	0.0038	<0.0013	0.0062
1/13/2017	0.0034	<0.0013				
3/16/2017	0.0023	<0.0013	<0.0013	0.005	<0.0013	
3/17/2017						0.0078
5/17/2017	0.0009 (J)	<0.0013	<0.0013	0.0035	<0.0013	0.0052
3/13/2018		<0.0013	0.00054 (J)	0.003	<0.0013	
3/14/2018	0.00062 (J)					0.0033
6/8/2018			0.00053 (J)	0.0029	0.0018	0.003
6/9/2018	0.00063 (J)	<0.0013				
10/17/2018						0.0028
10/19/2018				0.0023	<0.0013	
11/13/2018			<0.0013			
11/14/2018	<0.0013	<0.0013				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

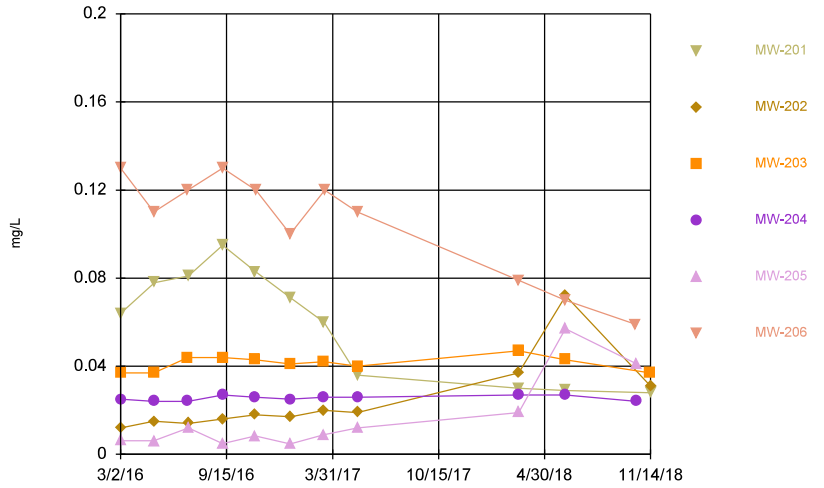
Time Series



Constituent: Barium Analysis Run 2/11/2019 11:18 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

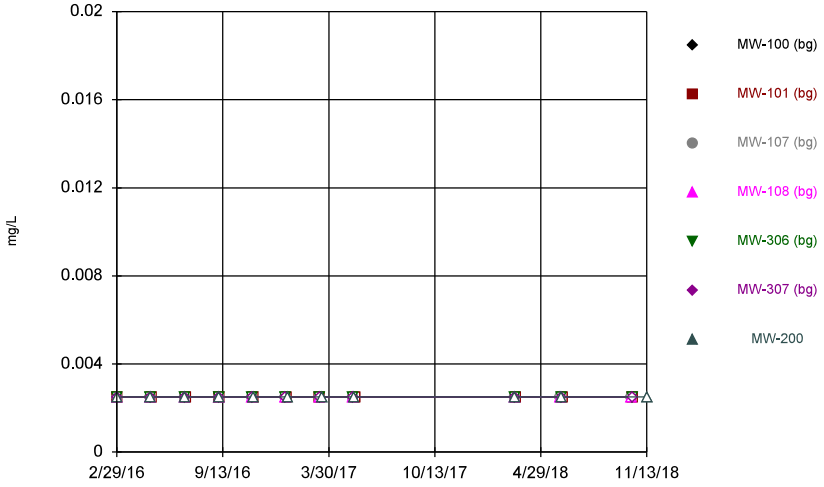
Time Series



Constituent: Barium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

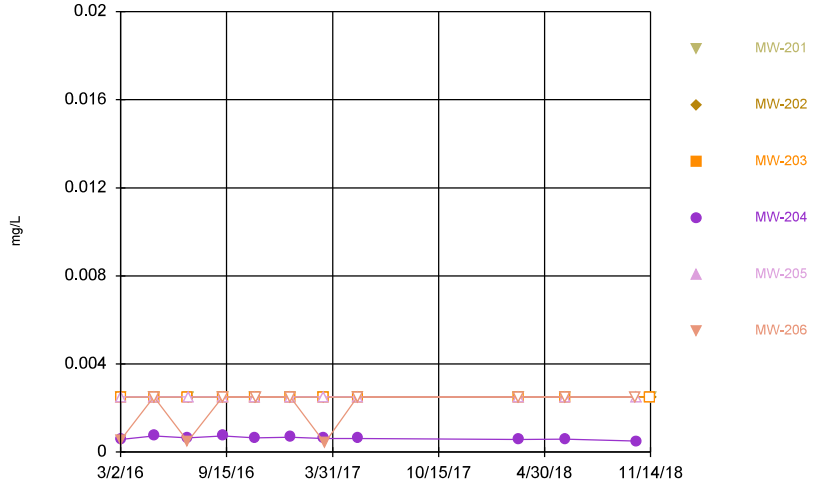
Time Series



Constituent: Beryllium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	0.014	0.0097 (J)	0.013	0.013			
3/1/2016					0.012	0.015	
3/2/2016							0.089
5/2/2016	0.013		0.013	0.01		0.013	
5/3/2016					0.012		0.076
5/4/2016		0.0095					
7/5/2016	0.013		0.013	0.0089	0.011	0.017	0.068
7/8/2016		0.0093					
9/6/2016	0.016	0.011	0.013	0.01	0.012	0.017	
9/8/2016							0.078
11/7/2016	0.014		0.013	0.0096	0.012	0.023	
11/9/2016							0.051
11/10/2016		0.0092					
1/9/2017	0.015		0.012	0.011	0.013	0.016	
1/11/2017		0.0092					
1/12/2017							0.036
3/13/2017	0.015		0.013	0.011	0.013	0.016	
3/14/2017		0.0095					
3/17/2017							0.061
5/15/2017	0.015		0.011	0.0089	0.012	0.015	
5/16/2017							0.061
5/18/2017		0.0095					
3/12/2018	0.017		0.013	0.01	0.013	0.015	
3/13/2018							0.042
3/14/2018		0.0089					
6/5/2018	0.018		0.014	0.011			
6/6/2018					0.014	0.017	
6/8/2018							0.057
6/10/2018		0.0092					
10/16/2018	0.017		0.011	0.011			
10/17/2018					0.012	0.016	
10/18/2018		0.0089					
11/13/2018							0.048

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.064	0.012 (J)		0.025	0.0062 (J)	0.13
3/3/2016			0.037			
5/3/2016		0.015	0.037	0.024	0.0061	0.11
5/4/2016	0.078					
7/5/2016			0.044	0.024		0.12
7/6/2016	0.081	0.014			0.012	
9/8/2016	0.095	0.016	0.044	0.027	0.0048	0.13
11/8/2016	0.083	0.018	0.043	0.026	0.0083	
11/9/2016						0.12
1/12/2017			0.041	0.025	0.0047	0.1
1/13/2017	0.071	0.017				
3/16/2017	0.06	0.02	0.042	0.026	0.0089	
3/17/2017						0.12
5/17/2017	0.036	0.019	0.04	0.026	0.012	0.11
3/13/2018		0.037	0.047	0.027	0.019	
3/14/2018	0.03					0.079
6/8/2018			0.043	0.027	0.057	0.07
6/9/2018	0.029	0.072				
10/17/2018						0.059
10/19/2018				0.024	0.041	
11/13/2018			0.037			
11/14/2018	0.028	0.031				

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/2/2016							<0.0025
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		<0.0025
5/4/2016		<0.0025					
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/8/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/11/2017		<0.0025					
1/12/2017							<0.0025
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/17/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	
6/8/2018							<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					
11/13/2018							<0.0025 (J3)

Time Series

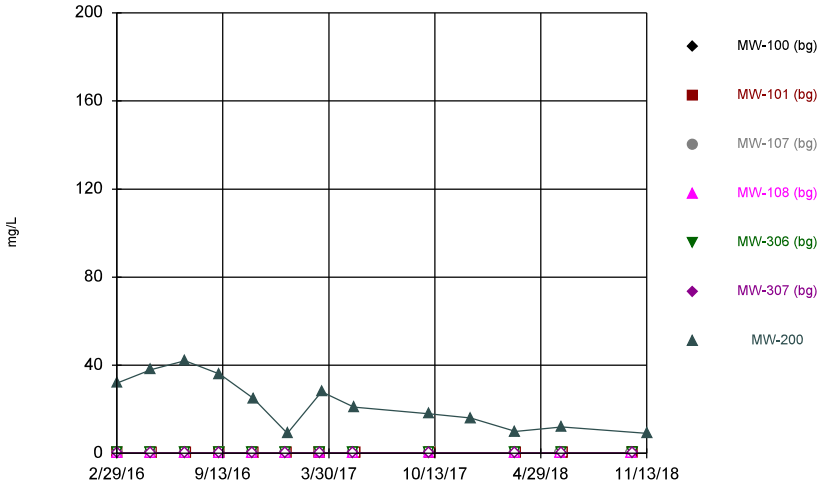
Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.0025	<0.0025		0.00058 (J)	<0.0025	0.00055 (J)
3/3/2016			<0.0025			
5/3/2016		<0.0025	<0.0025	0.00074 (J)	<0.0025	<0.0025
5/4/2016	<0.0025					
7/5/2016			<0.0025	0.00064 (J)		0.00048 (J)
7/6/2016	<0.0025	<0.0025			<0.0025	
9/8/2016	<0.0025	<0.0025	<0.0025	0.00073 (J)	<0.0025	<0.0025
11/8/2016	<0.0025	<0.0025	<0.0025	0.00064 (J)	<0.0025	
11/9/2016						<0.0025
1/12/2017			<0.0025	0.00068 (J)	<0.0025	<0.0025
1/13/2017	<0.0025	<0.0025				
3/16/2017	<0.0025	<0.0025	<0.0025	0.00062 (J)	<0.0025	
3/17/2017						0.00042 (J)
5/17/2017	<0.0025	<0.0025	<0.0025	0.00062 (J)	<0.0025	<0.0025
3/13/2018		<0.0025	<0.0025	0.00057 (J)	<0.0025	
3/14/2018	<0.0025					<0.0025
6/8/2018			<0.0025	0.00059 (J)	<0.0025	<0.0025
6/9/2018	<0.0025	<0.0025				
10/17/2018						<0.0025
10/19/2018				0.0005 (J)	<0.0025	
11/13/2018			<0.0025 (J3)			
11/14/2018	<0.0025 (J3)	<0.0025 (J3)				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

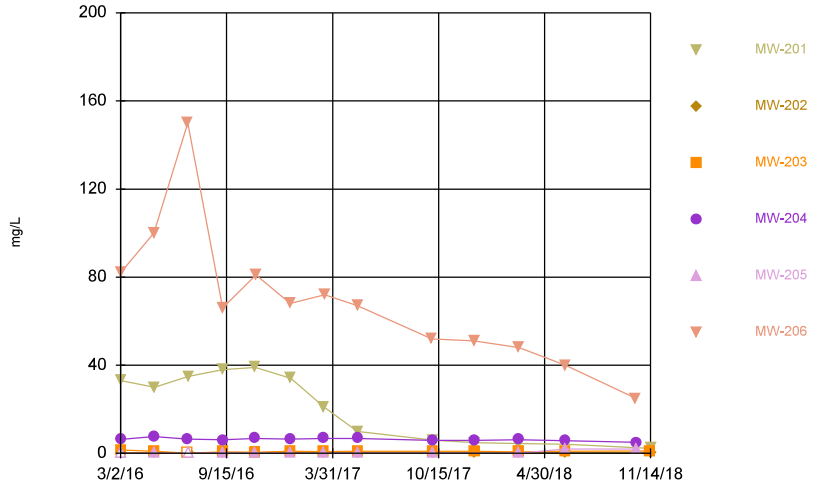
Time Series



Constituent: Boron Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

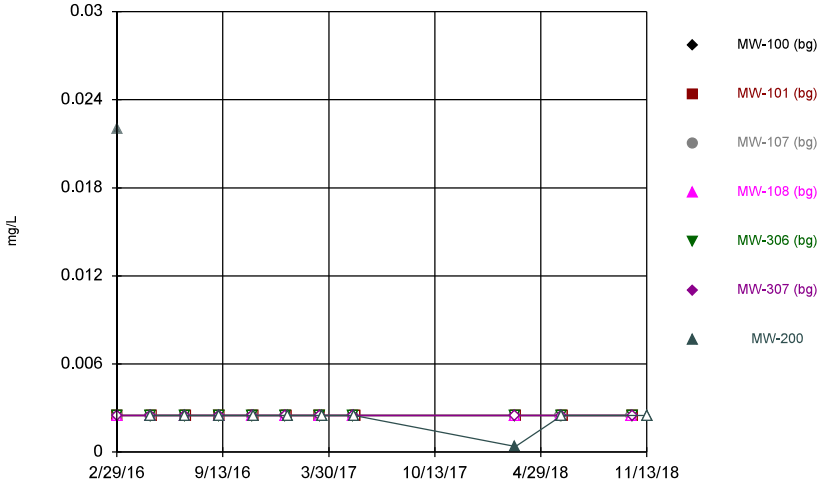
Time Series



Constituent: Boron Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

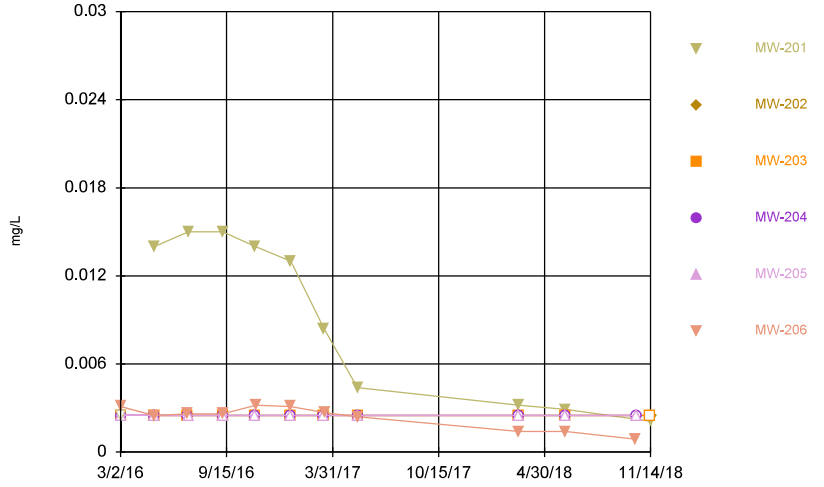
Time Series



Constituent: Cadmium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.05	<0.05	<0.05	<0.05			
3/1/2016					<0.05	<0.05	
3/2/2016							32
5/2/2016	<0.05		<0.05	<0.05		<0.05	
5/3/2016					<0.05		38
5/4/2016		<0.05					
7/5/2016	<0.05		<0.05	<0.05	<0.05	<0.05	42
7/8/2016		<0.05					
9/6/2016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
9/8/2016							36
11/7/2016	<0.05		<0.05	<0.05	<0.05	<0.05	
11/9/2016							25
11/10/2016		<0.05					
1/9/2017	<0.05		<0.05	<0.05	<0.05	<0.05	
1/11/2017		<0.05					
1/12/2017							9.1
3/13/2017	<0.05		<0.05	0.022 (J)	<0.05	<0.05	
3/14/2017		<0.05					
3/17/2017							28
5/15/2017	<0.05		<0.05	<0.05	<0.05	<0.05	
5/16/2017							21
5/18/2017		<0.05					
10/2/2017	<0.05		<0.05	0.023 (J)	<0.05	<0.05	
10/4/2017							18
10/5/2017		<0.05					
12/20/2017							16 (R)
3/12/2018	<0.05		<0.05	<0.05	<0.05	<0.05	
3/13/2018							10
3/14/2018		<0.05					
6/5/2018	<0.05		<0.05	<0.05			
6/6/2018					<0.05	<0.05	
6/8/2018							12
6/10/2018		<0.05					
10/16/2018	<0.05		<0.05	<0.05			
10/17/2018					<0.05	<0.05	
10/18/2018		0.081					
11/13/2018							9.1

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	33	0.24 (J)		6.3	<0.05	82
3/3/2016			1.5			
5/3/2016		0.32	0.97	7.6	0.059	100
5/4/2016	30					
7/5/2016			<0.05 (*)	6.5		150
7/6/2016	35	<0.05 (*)			<0.05 (*)	
9/8/2016	38	0.26	0.7	6.1	0.14	66
11/8/2016	39	0.19	0.55	6.7	0.16	
11/9/2016						81
1/12/2017			0.87	6.5	0.045 (J)	68
1/13/2017	34	0.65				
3/16/2017	21	0.12	0.83	6.8	0.072	
3/17/2017						72
5/17/2017	10	0.11	0.94	6.7	0.074	67
10/3/2017						52
10/4/2017	6	0.087	0.97	5.9	0.039 (J)	
12/20/2017	4.9 (R)	0.048 (I)	0.87	5.9		51
3/13/2018		0.027 (J)	0.69	6.2	0.084	
3/14/2018	4.4					48
6/8/2018			0.99	5.7	2	40
6/9/2018	4.1	0.11				
10/17/2018						25
10/19/2018				5	2	
11/13/2018			1.1			
11/14/2018	2.3	0.21				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/2/2016							0.022 (o)
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		<0.0025
5/4/2016		<0.0025					
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/8/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/11/2017		<0.0025					
1/12/2017							<0.0025
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/17/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							0.00039 (J)
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	
6/8/2018							<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					
11/13/2018							<0.0025

Time Series

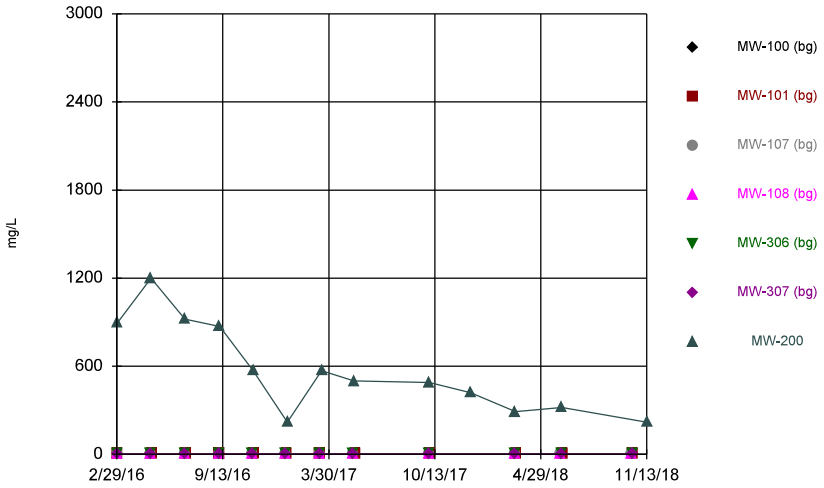
Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.0025 (o)	<0.0025		<0.0025	<0.0025	0.0031 (J)
3/3/2016			<0.0025			
5/3/2016		<0.0025	<0.0025	<0.0025	<0.0025	0.0025
5/4/2016	0.014					
7/5/2016			<0.0025	<0.0025		0.0026
7/6/2016	0.015	<0.0025			<0.0025	
9/8/2016	0.015	<0.0025	<0.0025	<0.0025	<0.0025	0.0026 (J)
11/8/2016	0.014	<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016						0.0032 (J)
1/12/2017			<0.0025	<0.0025	<0.0025	0.0031
1/13/2017	0.013	<0.0025				
3/16/2017	0.0084	<0.0025	<0.0025	<0.0025	<0.0025	
3/17/2017						0.0027
5/17/2017	0.0044	<0.0025	<0.0025	<0.0025	<0.0025	0.0024 (J)
3/13/2018		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2018	0.0032					0.0014 (J)
6/8/2018			<0.0025	<0.0025	<0.0025	0.0014 (J)
6/9/2018	0.0029	<0.0025				
10/17/2018						0.00088 (J)
10/19/2018				<0.0025	<0.0025	
11/13/2018			<0.0025			
11/14/2018	0.0021 (J)	<0.0025				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

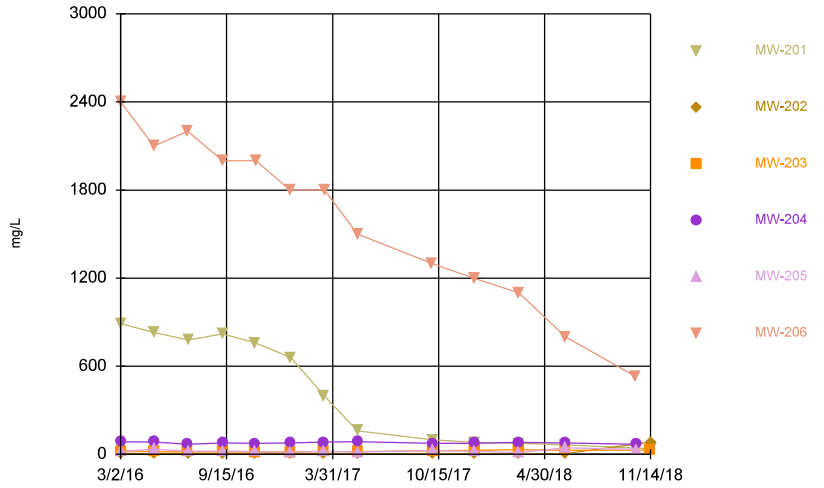
Time Series



Constituent: Calcium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

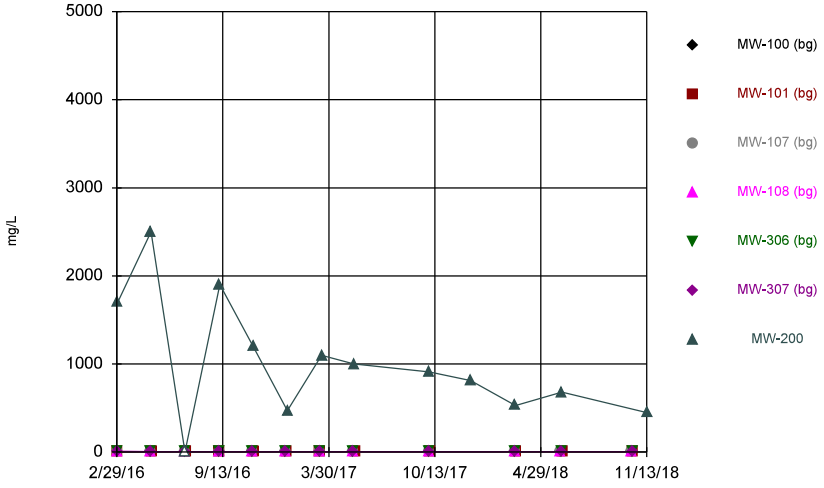
Time Series



Constituent: Calcium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

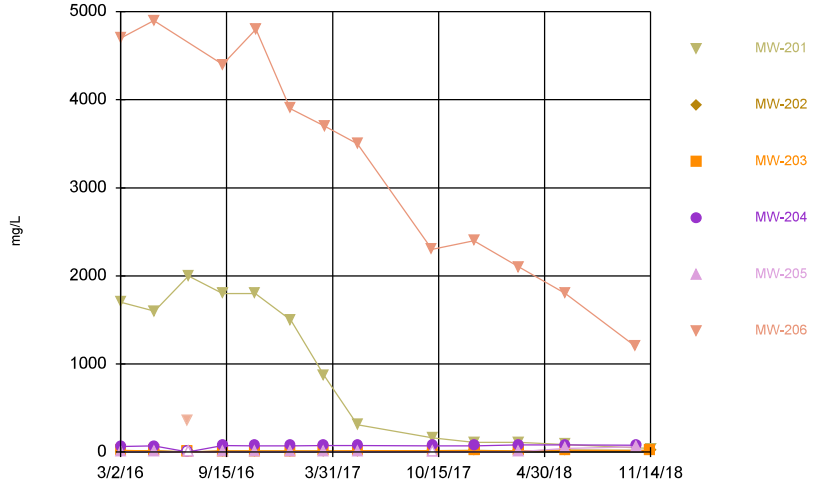
Time Series



Constituent: Chloride Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	1	1 (J)	0.67	1.4			
3/1/2016					0.6	1.5	
3/2/2016							900
5/2/2016	0.78		0.58	1.1		0.83	
5/3/2016					0.55		1200
5/4/2016		0.62					
7/5/2016	0.65		0.43	0.94	0.53	1.6	920
7/8/2016		0.4					
9/6/2016	0.7	0.45	0.48	1	0.5	1.6	
9/8/2016							870
11/7/2016	0.8		0.56	1.2	0.68	1.5	
11/9/2016							570
11/10/2016		0.44					
1/9/2017	0.74		0.43	1.2	0.56	0.98	
1/11/2017		0.42					
1/12/2017							220
3/13/2017	0.78		0.48	1.3	0.62	0.75	
3/14/2017		0.42					
3/17/2017							570
5/15/2017	0.76		0.37	1	0.58	0.83	
5/16/2017							500
5/18/2017		0.38					
10/2/2017	0.78		0.47	1.2	0.62	0.83	
10/4/2017							490
10/5/2017		0.39					
12/20/2017							420 (R)
3/12/2018	0.88		0.49	1.4	0.59	0.71	
3/13/2018							290
3/14/2018		0.49					
6/5/2018	0.9		0.49	1.2			
6/6/2018					0.59	0.68	
6/8/2018							320
6/10/2018		0.39					
10/16/2018	0.86		0.42	1.4			
10/17/2018					0.54	0.66	
10/18/2018		0.41					
11/13/2018							220

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	890	7.2		85	19	2400
3/3/2016			25			
5/3/2016		6.2	18	84	36	2100
5/4/2016	830					
7/5/2016			17	69		2200
7/6/2016	780	4.8			20	
9/8/2016	820	5.2	17	77	22	2000
11/8/2016	760	4.7	16	75	18	
11/9/2016						2000
1/12/2017			16	78	14	1800
1/13/2017	660	4.9				
3/16/2017	400	4	18	83	21	
3/17/2017						1800
5/17/2017	160	4	19	86	16	1500
10/3/2017						1300
10/4/2017	100	4.9	24	74	26	
12/20/2017	82 (R)	4.8	28	76	21	1200
3/13/2018		4.1	31	81	11	
3/14/2018	75					1100
6/8/2018			28	77	44	800
6/9/2018	64	5.8				
10/17/2018						530
10/19/2018				68	33	
11/13/2018			30			
11/14/2018	38	83				

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	5.3	5.4	8.1	7.4			
3/1/2016					5.6	4	
3/2/2016							1700
5/2/2016	4.4		6	6.3		3.6	
5/3/2016					5.1		2500
5/4/2016		4.5					
7/5/2016	4.2		5.2	4.8	4.7	3.6	<2.7 (*)
7/8/2016		4.9					
9/6/2016	4.3	4.3	5.5	6	4.4	4	
9/8/2016							1900
11/7/2016	4.2		5.4	5.7	4.6	4.4	
11/9/2016							1200
11/10/2016		4.5					
1/9/2017	5.3		6.1	6.8	5.3	4.4	
1/11/2017		5.3					
1/12/2017							470
3/13/2017	5.2		5.5	6.8	5.6	4.1	
3/14/2017		5.5					
3/17/2017							1100
5/15/2017	4.8		4.7	6.1	5.2	3.7	
5/16/2017							1000
5/18/2017		5					
10/2/2017	5.5		6.1	6	5.5	4.8	
10/4/2017							910
10/5/2017		5.6					
12/20/2017							810 (R)
3/12/2018	5.3		6.1	5.9	5.6	4	
3/13/2018							530
3/14/2018		5.2					
6/5/2018	5.3		5.5	6.5			
6/6/2018					5.6	4.1	
6/8/2018							680
6/10/2018		5.2					
10/16/2018	5.5		5.1	5.9			
10/17/2018					5.5	3.7	
10/18/2018		5.2					
11/13/2018							450

Time Series

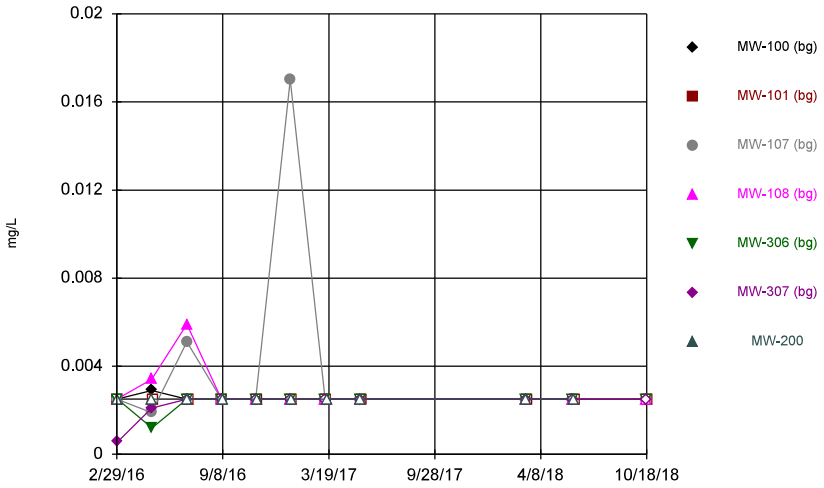
Constituent: Chloride (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	1700	12		64	6.2	4700
3/3/2016			19			
5/3/2016		15	14	69	3.6	4900
5/4/2016	1600					
7/5/2016			<2.7 (*)	<2.7 (*)		360 (o)
7/6/2016	2000	<2.7 (*)			<2.7 (*)	
9/8/2016	1800	13	12	74	3	4400
11/8/2016	1800	12	12	71	5.9	
11/9/2016						4800
1/12/2017			12	71	4.5	3900
1/13/2017	1500	13				
3/16/2017	870	11	14	73	5.9	
3/17/2017						3700
5/17/2017	310	10	15	73	4.4	3500
10/3/2017						2300
10/4/2017	160	17	17	70	<2.7 (*)	
12/20/2017	110 (R)	20	15	72		2400
3/13/2018		14	14	81	4.1	
3/14/2018	110					2100
6/8/2018			15	82	43	1800
6/9/2018	86	24				
10/17/2018						1200
10/19/2018				77	58	
11/13/2018			17			
11/14/2018	41	18				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

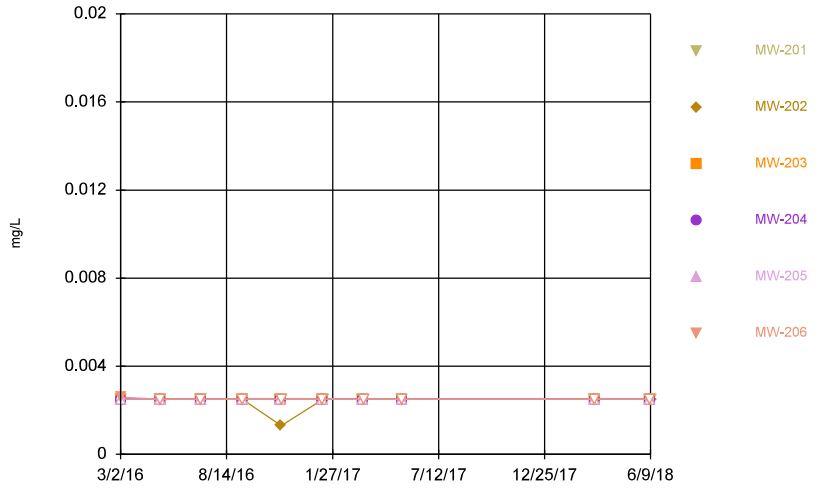
Time Series



Constituent: Chromium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

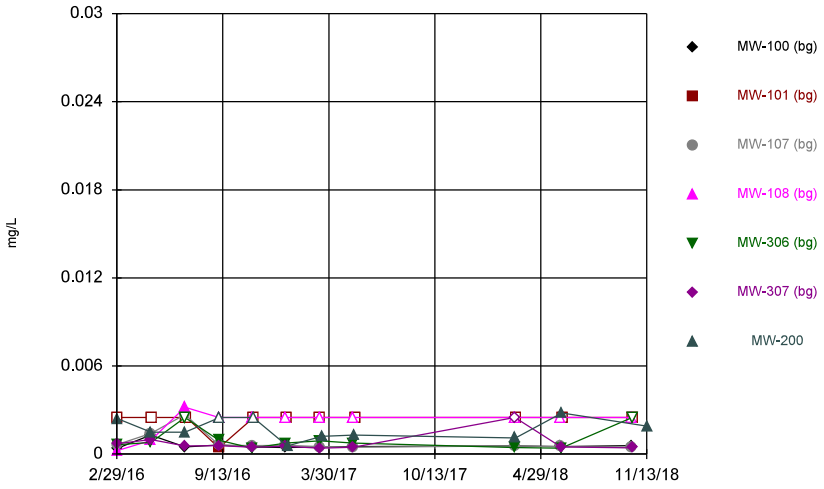
Time Series



Constituent: Chromium Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

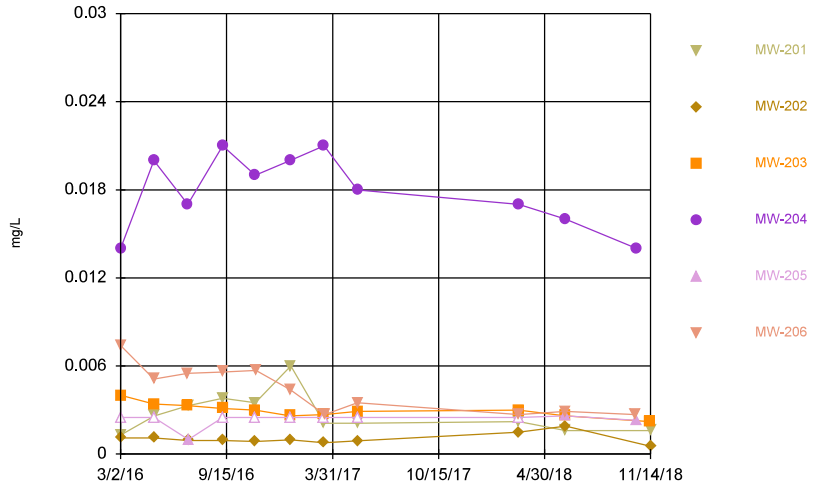
Time Series



Constituent: Cobalt Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	0.00056 (J)	
3/2/2016							<0.0025
5/2/2016	0.0029		0.0019 (J)	0.0034		0.0021 (J)	
5/3/2016					0.0012 (J)		<0.0025
5/4/2016		<0.0025					
7/5/2016	<0.0025		0.0051	0.0059	<0.0025	<0.0025	<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/8/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/9/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		0.017	<0.0025	<0.0025	<0.0025	
1/11/2017		<0.0025					
1/12/2017							<0.0025
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/17/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	
6/8/2018							<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.0025	<0.0025		<0.0025	<0.0025	0.0026 (J)
3/3/2016			<0.0025			
5/3/2016		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	<0.0025					
7/5/2016			<0.0025	<0.0025		<0.0025
7/6/2016	<0.0025	<0.0025			<0.0025	
9/8/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
11/8/2016	<0.0025	0.0013 (J)	<0.0025	<0.0025	<0.0025	
11/9/2016						<0.0025
1/12/2017			<0.0025	<0.0025	<0.0025	<0.0025
1/13/2017	<0.0025	<0.0025				
3/16/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
3/17/2017						<0.0025
5/17/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/13/2018		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2018	<0.0025					<0.0025
6/8/2018			<0.0025	<0.0025	<0.0025	<0.0025
6/9/2018	<0.0025	<0.0025				

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	0.00039 (J)	<0.0025	0.00064 (J)	0.00023 (J)			
3/1/2016					0.00064 (J)	0.00071 (J)	
3/2/2016							0.0024 (J)
5/2/2016	0.0013 (J)		0.0014 (J)	0.00092 (J)		0.001 (J)	
5/3/2016					0.00079 (J)		0.0015 (J)
5/4/2016		<0.0025					
7/5/2016	0.00049 (J)		0.0027	0.0032	<0.0025	0.00055 (J)	0.0015 (J)
7/8/2016		<0.0025					
9/6/2016	0.00062 (J)	0.00042 (J)	0.00062 (J)	<0.0025	0.00094 (J)	0.00057 (J)	
9/8/2016							<0.0025
11/7/2016	0.00049 (J)		0.00058 (J)	<0.0025	0.00041 (J)	0.00047 (J)	
11/9/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	0.00045 (J)		0.00059 (J)	<0.0025	0.00074 (J)	0.00054 (J)	
1/11/2017		<0.0025					
1/12/2017							0.00056 (J)
3/13/2017	0.00048 (J)		0.0005 (J)	<0.0025	0.00091 (J)	0.0004 (J)	
3/14/2017		<0.0025					
3/17/2017							0.0012 (J)
5/15/2017	0.00052 (J)		0.00046 (J)	<0.0025	0.00075 (J)	0.00046 (J)	
5/16/2017							0.0013 (J)
5/18/2017		<0.0025					
3/12/2018	0.00055 (J)		0.00055 (J)	<0.0025	0.00044 (J)	<0.0025	
3/13/2018							0.0011 (J)
3/14/2018		<0.0025					
6/5/2018	0.00051 (J)		0.00052 (J)	<0.0025			
6/6/2018					0.0004 (J)	0.00048 (J)	
6/8/2018							0.0028
6/10/2018		<0.0025					
10/16/2018	0.00058 (J)		0.00045 (J)	<0.0025			
10/17/2018					<0.0025	0.00043 (J)	
10/18/2018		<0.0025					
11/13/2018							0.0019 (J)

Time Series

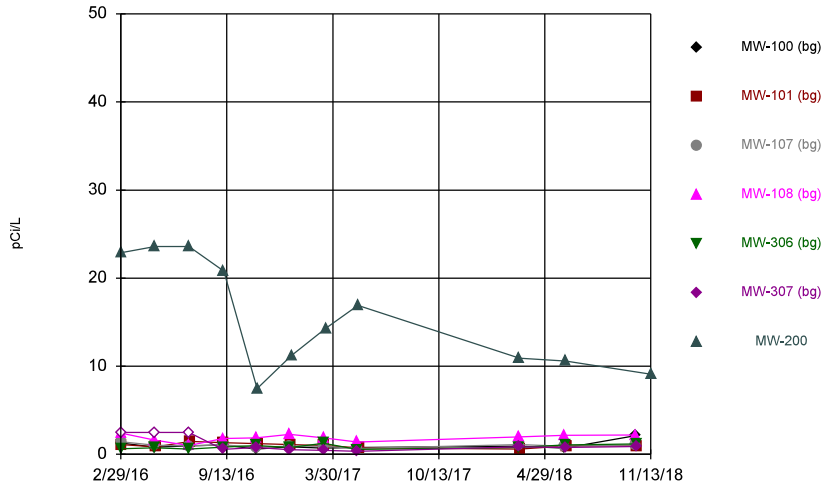
Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.0013 (J)	0.0011 (J)		0.014	<0.0025	0.0074 (J)
3/3/2016			0.004 (J)			
5/3/2016		0.0011 (J)	0.0034	0.02	<0.0025	0.0051
5/4/2016	0.0026					
7/5/2016			0.0033	0.017		0.0055
7/6/2016	0.0033	0.00093 (J)			0.00099 (J)	
9/8/2016	0.0038 (J)	0.00093 (J)	0.0031	0.021	<0.0025	0.0056 (J)
11/8/2016	0.0035 (J)	0.00087 (J)	0.003	0.019	<0.0025	
11/9/2016						0.0057 (J)
1/12/2017			0.0026	0.02	<0.0025	0.0044
1/13/2017	0.006	0.00096 (J)				
3/16/2017	0.0021 (J)	0.00077 (J)	0.0027	0.021	<0.0025	
3/17/2017						0.0027
5/17/2017	0.0021 (J)	0.00091 (J)	0.0029	0.018	<0.0025	0.0035
3/13/2018		0.0015 (J)	0.003	0.017	<0.0025	
3/14/2018	0.0022 (J)					0.0027
6/8/2018			0.0026	0.016	0.0026	0.0029
6/9/2018	0.0016 (J)	0.0019 (J)				
10/17/2018						0.0027
10/19/2018				0.014	0.0023 (J)	
11/13/2018			0.0022 (J)			
11/14/2018	0.0016 (J)	0.00053 (J)				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

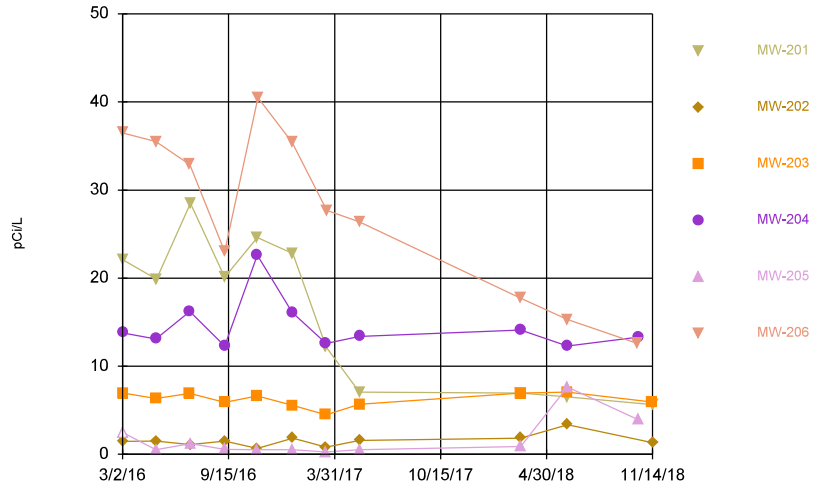
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Seri
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

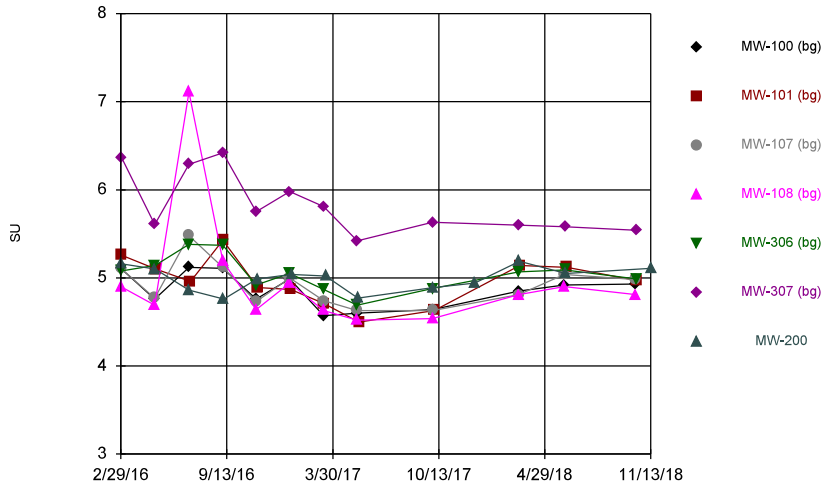
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Seri
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

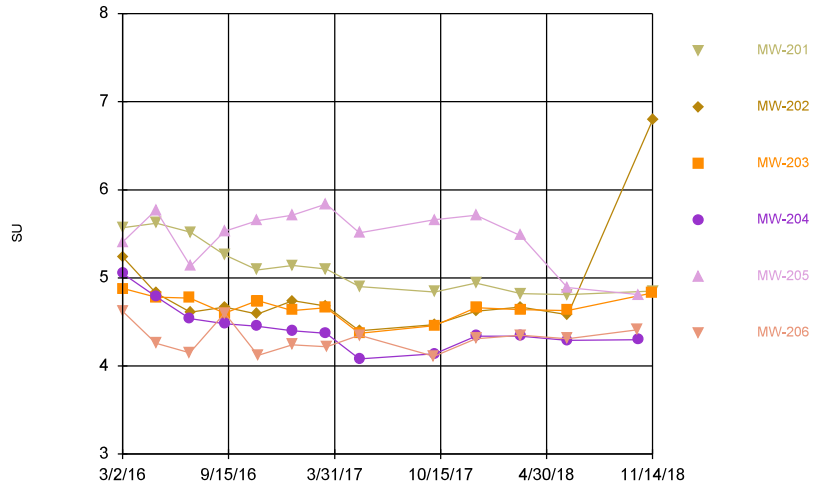
Time Series



Constituent: Field pH Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Field pH Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	1.27	1.09	1.42	2.4			
3/1/2016					0.647	<5	
3/2/2016							22.9
5/2/2016	0.808		1.03	1.62		<5	
5/3/2016					0.748		23.6
5/4/2016		0.848					
7/5/2016	0.947		0.961	1.01	0.591	<5	23.6
7/8/2016		1.46					
9/6/2016	1.07	1.34	1.07	1.8	0.831	0.566	
9/8/2016							20.8
11/7/2016	0.602		0.818	1.86	0.983	0.784	
11/9/2016							7.46
11/10/2016		1.23					
1/9/2017	0.865		0.934	2.25	0.767	0.541	
1/11/2017		1.11					
1/12/2017							11.2
3/13/2017	0.693		0.937	1.87	1.26	0.442	
3/14/2017		1.01					
3/17/2017							14.3
5/15/2017	0.786		0.685	1.4	0.553	0.345	
5/16/2017							16.9
5/18/2017		0.745					
3/12/2018	0.933		1.09	1.97	0.783	0.848	
3/13/2018							10.9
3/14/2018		0.614					
6/5/2018	0.713		0.927	2.17			
6/6/2018					1.08	0.78	
6/8/2018							10.6
6/10/2018		0.959					
10/16/2018	2.14		1.07	2.2			
10/17/2018					1.19	0.88	
10/18/2018		0.944					
11/13/2018							9.09

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	22.1	1.47		13.8	<5	36.5
3/3/2016			6.96			
5/3/2016		1.52	6.33	13.1	0.522	35.5
5/4/2016	19.9					
7/5/2016			6.93	16.2		32.9
7/6/2016	28.5	1.1			1.21	
9/8/2016	20.1	1.5	5.91	12.3	0.568	23
11/8/2016	24.6	0.674	6.63	22.6	0.517	
11/9/2016						40.5
1/12/2017			5.56	16.1	0.523 (U)	35.4
1/13/2017	22.8	1.83				
3/16/2017	12.2	0.814	4.49	12.6	0.273 (U)	
3/17/2017						27.7
5/17/2017	7.05	1.56	5.7	13.4	0.526	26.4
3/13/2018		1.82	6.95	14.1	0.874	
3/14/2018	6.95					17.7
6/8/2018			7.07	12.3	7.65	15.3
6/9/2018	6.52	3.36				
10/17/2018						12.6
10/19/2018				13.3	3.9	
11/13/2018			5.95			
11/14/2018	5.66	1.31				

Time Series

Constituent: Field pH (SU) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	5.11	5.26	5.11	4.9			
3/1/2016					5.08	6.37	
3/2/2016							5.16 (D)
5/2/2016	4.76		4.77	4.69		5.605 (D)	
5/3/2016					5.14		5.1
5/4/2016		5.1					
7/5/2016	5.12		5.48	7.11	5.38	6.29	4.86
7/8/2016		4.96					
9/6/2016	5.11	5.43	5.12	5.19	5.37	6.42	
9/8/2016							4.76
11/7/2016	4.76		4.73	4.64	4.92	5.75	
11/9/2016							4.99
11/10/2016		4.89					
1/9/2017	4.99		5	4.94	5.05	5.98	
1/11/2017		4.87					
1/12/2017							5.04
3/13/2017	4.57		4.74	4.63	4.87	5.81	
3/14/2017		4.71					
3/17/2017							5.02
5/15/2017	4.6		4.63	4.52	4.69	5.42	
5/16/2017							4.77
5/18/2017		4.5					
10/2/2017	4.64		4.63	4.54	4.88	5.63	
10/4/2017							4.89
10/5/2017		4.63					
12/20/2017							4.94 (R)
3/12/2018	4.85		4.81	4.81	5.07	5.6	
3/13/2018							5.19
3/14/2018		5.14					
6/5/2018	4.92		5.04	4.9			
6/6/2018					5.09	5.58	
6/8/2018							5.05
6/10/2018		5.12					
10/16/2018	4.93		4.98	4.81			
10/17/2018					4.99	5.54	
10/18/2018		4.97					
11/13/2018							5.11

Time Series

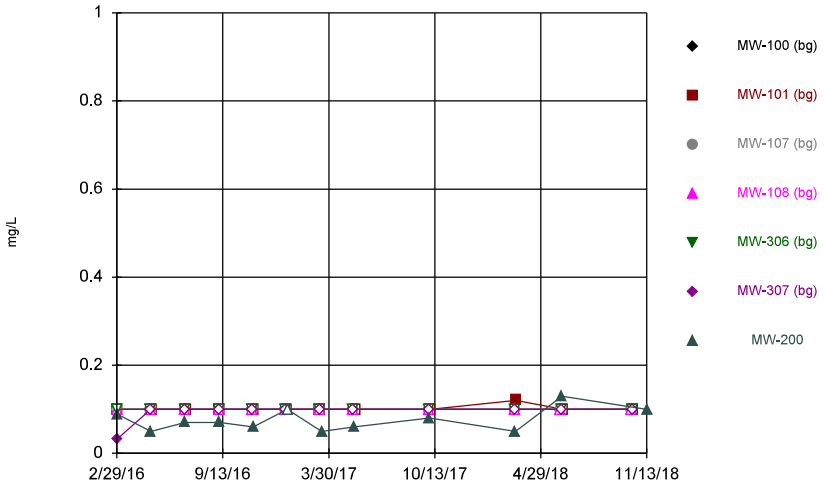
Constituent: Field pH (SU) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	5.57	5.24		5.05	5.405 (D)	4.62
3/3/2016			4.88			
5/3/2016		4.83	4.78	4.79	5.77	4.26
5/4/2016	5.62					
7/5/2016			4.77	4.54		4.15
7/6/2016	5.52	4.61			5.135 (D)	
9/8/2016	5.26	4.67	4.6	4.48	5.53	4.6
11/8/2016	5.09	4.59	4.74	4.45	5.65	
11/9/2016			4.74			4.12
1/12/2017			4.63	4.4	5.71	4.24
1/13/2017	5.14	4.74				
3/16/2017	5.1	4.68	4.66	4.37	5.84	
3/17/2017						4.22
5/17/2017	4.9	4.4	4.37	4.08	5.51	4.35
10/3/2017						4.11
10/4/2017	4.84	4.47	4.46	4.14	5.66	
12/20/2017	4.94 (R)	4.62 (R)	4.66	4.34 (R)	5.71	4.31
3/13/2018		4.67	4.64	4.34	5.48	
3/14/2018	4.82					4.35
6/8/2018			4.63	4.29	4.89	4.31
6/9/2018	4.81	4.58				
10/17/2018						4.41
10/19/2018				4.3	4.81	
11/13/2018			4.83			
11/14/2018	4.85	6.79				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

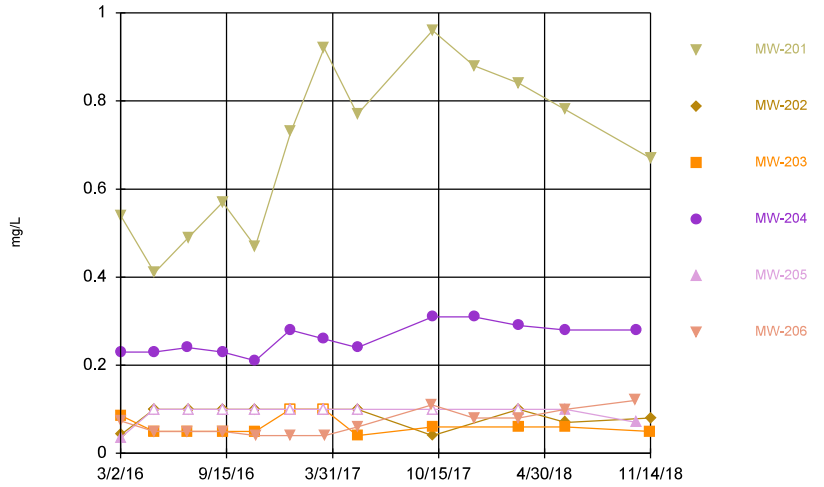
Time Series



Constituent: Fluoride Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

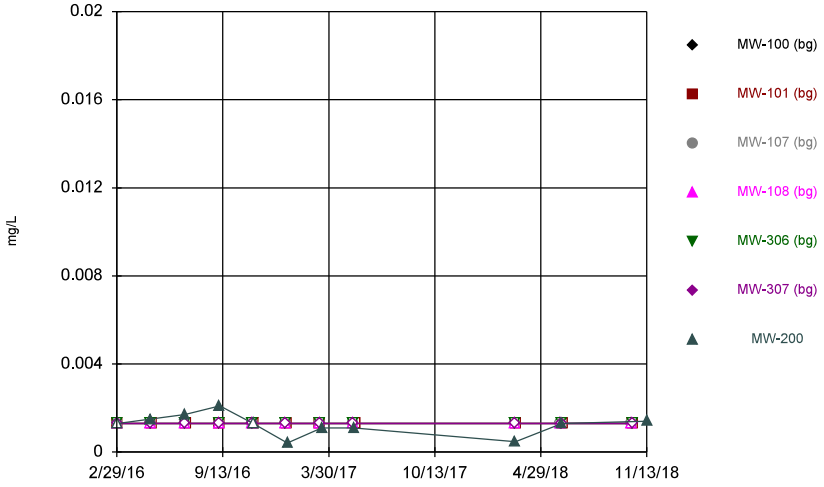
Time Series



Constituent: Fluoride Analysis Run 2/11/2019 11:19 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

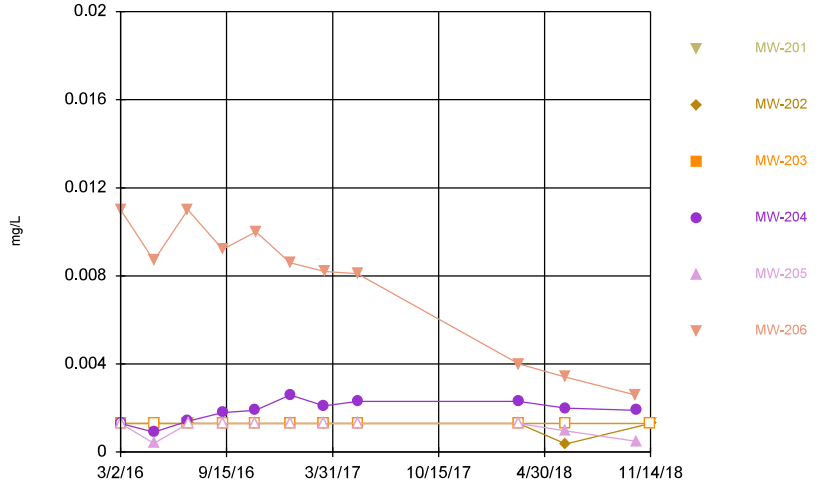
Time Series



Constituent: Lead Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.1	<0.1	<0.1	<0.1			
3/1/2016					<0.1	0.033 (J)	
3/2/2016							0.088 (J)
5/2/2016	<0.1		<0.1	<0.1		<0.1	
5/3/2016					<0.1		0.05 (J)
5/4/2016		<0.1					
7/5/2016	<0.1		<0.1	<0.1	<0.1	<0.1	0.07 (J)
7/8/2016		<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/8/2016							0.07 (J)
11/7/2016	<0.1		<0.1	<0.1	<0.1	<0.1	
11/9/2016							0.06 (J)
11/10/2016		<0.1					
1/9/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
1/11/2017		<0.1					
1/12/2017							<0.1
3/13/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
3/14/2017		<0.1					
3/17/2017							0.05 (J)
5/15/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
5/16/2017							0.06 (J)
5/18/2017		<0.1					
10/2/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
10/4/2017							0.08 (J)
10/5/2017		<0.1					
3/12/2018	<0.1		<0.1	<0.1	<0.1	<0.1	
3/13/2018							0.05 (J)
3/14/2018		0.12					
6/5/2018	<0.1		<0.1	<0.1			
6/6/2018					<0.1	<0.1	
6/8/2018							0.13
6/10/2018		<0.1					
10/16/2018	<0.1		<0.1	<0.1			
10/17/2018					<0.1	<0.1	
10/18/2018		<0.1					
11/13/2018							0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.54	0.042 (J)		0.23	0.035 (J)	0.074 (J)
3/3/2016			0.085 (J)			
5/3/2016		<0.1	0.05 (J)	0.23	<0.1	0.05 (J)
5/4/2016	0.41					
7/5/2016			0.05 (J)	0.24		0.05 (J)
7/6/2016	0.49	<0.1			<0.1	
9/8/2016	0.57	<0.1	0.05 (J)	0.23	<0.1	0.05 (J)
11/8/2016	0.47	<0.1	0.05 (J)	0.21	<0.1	
11/9/2016						0.04 (J)
1/12/2017			<0.1	0.28	<0.1	0.04 (J)
1/13/2017	0.73	<0.1				
3/16/2017	0.92	<0.1	<0.1	0.26	<0.1	
3/17/2017						0.04 (J)
5/17/2017	0.77	<0.1	0.04 (J)	0.24	<0.1	0.06 (J)
10/3/2017						0.11
10/4/2017	0.96	0.04 (J)	0.06 (J)	0.31	<0.1	
12/20/2017	0.88 (R)			0.31		0.08 (I)
3/13/2018		<0.1	0.06 (J)	0.29	<0.1	
3/14/2018	0.84					0.08 (J)
6/8/2018			0.06 (J)	0.28	0.1	0.1
6/9/2018	0.78	0.07 (J)				
10/17/2018						0.12
10/19/2018				0.28	0.07 (J)	
11/13/2018			0.05 (J)			
11/14/2018	0.67	0.08 (J)				

Time Series

Constituent: Lead (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	<0.0013	
3/2/2016							<0.0013
5/2/2016	<0.0013		<0.0013	<0.0013		<0.0013	
5/3/2016					<0.0013		0.0015
5/4/2016		<0.0013					
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	0.0017
7/8/2016		<0.0013					
9/6/2016	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
9/8/2016							0.0021 (J)
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/9/2016							<0.0013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
1/11/2017		<0.0013					
1/12/2017							0.00041 (J)
3/13/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/17/2017							0.0011 (J)
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							0.0011 (J)
5/18/2017		<0.0013					
3/12/2018	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/13/2018							0.00047 (J)
3/14/2018		<0.0013					
6/5/2018	<0.0013		<0.0013	<0.0013			
6/6/2018					<0.0013	<0.0013	
6/8/2018							0.0013
6/10/2018		<0.0013					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					
11/13/2018							0.0014

Time Series

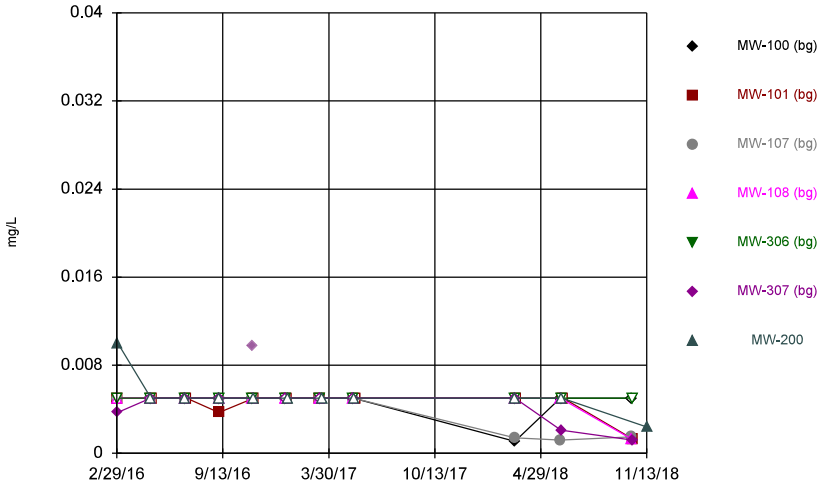
Constituent: Lead (mg/L) Analysis Run 2/11/2019 11:21 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.0013	<0.0013		<0.0013	<0.0013	0.011
3/3/2016			<0.0013			
5/3/2016		<0.0013	<0.0013	0.00091 (J)	0.0004 (J)	0.0087
5/4/2016	<0.0013					
7/5/2016			<0.0013	0.0014		0.011
7/6/2016	<0.0013	<0.0013			<0.0013	
9/8/2016	<0.0013	<0.0013	<0.0013	0.0018	<0.0013	0.0092
11/8/2016	<0.0013	<0.0013	<0.0013	0.0019	<0.0013	
11/9/2016						0.01
1/12/2017			<0.0013	0.0026	<0.0013	0.0086
1/13/2017	<0.0013	<0.0013				
3/16/2017	<0.0013	<0.0013	<0.0013	0.0021	<0.0013	
3/17/2017						0.0082
5/17/2017	<0.0013	<0.0013	<0.0013	0.0023	<0.0013	0.0081
3/13/2018		<0.0013	<0.0013	0.0023	<0.0013	
3/14/2018	<0.0013					0.004
6/8/2018			<0.0013	0.002	0.00097 (J)	0.0034
6/9/2018	<0.0013	0.00037 (J)				
10/17/2018						0.0026
10/19/2018				0.0019	0.00048 (J)	
11/13/2018			<0.0013			
11/14/2018	<0.0013	<0.0013				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

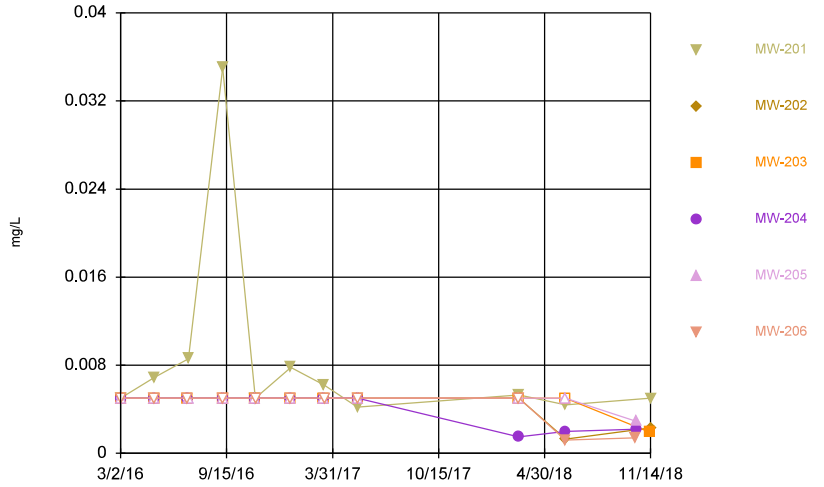
Time Series



Constituent: Lithium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

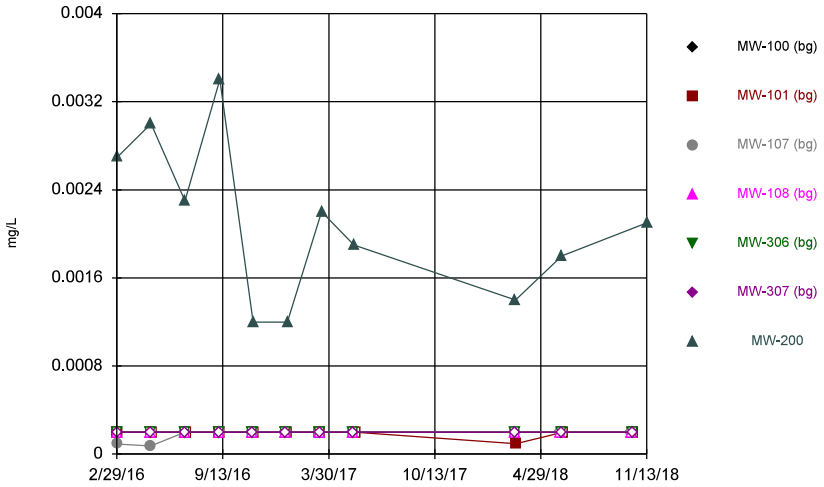
Time Series



Constituent: Lithium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

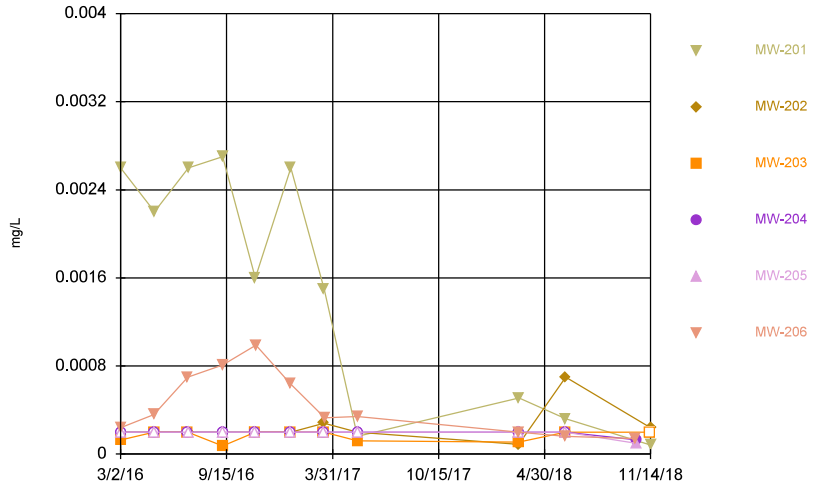
Time Series



Constituent: Mercury Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.005	<0.005	<0.005	<0.005			
3/1/2016					<0.005	0.0037	
3/2/2016							0.01 (J)
5/2/2016	<0.005		<0.005	<0.005		<0.005	
5/3/2016					<0.005		<0.005
5/4/2016		<0.005					
7/5/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2016		<0.005					
9/6/2016	<0.005	0.0037 (J)	<0.005	<0.005	<0.005	<0.005	
9/8/2016							<0.005
11/7/2016	<0.005		<0.005	<0.005	<0.005	0.0097 (o)	
11/9/2016							<0.005
11/10/2016		<0.005					
1/9/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
1/11/2017		<0.005					
1/12/2017							<0.005
3/13/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
3/14/2017		<0.005					
3/17/2017							<0.005
5/15/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
5/16/2017							<0.005
5/18/2017		<0.005					
3/12/2018	0.0011 (J)		0.0014 (J)	<0.005	<0.005	<0.005	
3/13/2018							<0.005
3/14/2018		<0.005					
6/5/2018	<0.005		0.0012 (J)	<0.005			
6/6/2018					<0.005	0.0021 (J)	
6/8/2018							<0.005
6/10/2018		<0.005					
10/16/2018	<0.005		0.0015 (J)	0.0013 (J)			
10/17/2018					<0.005	0.0012 (J)	
10/18/2018		0.0013 (J)					
11/13/2018							0.0024 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.005	<0.005		<0.005	<0.005	<0.005
3/3/2016			<0.005			
5/3/2016		<0.005	<0.005	<0.005	<0.005	<0.005
5/4/2016	0.0069					
7/5/2016			<0.005	<0.005		<0.005
7/6/2016	0.0086	<0.005			<0.005	
9/8/2016	0.035	<0.005	<0.005	<0.005	<0.005	<0.005
11/8/2016	<0.005	<0.005	<0.005	<0.005	<0.005	
11/9/2016						<0.005
1/12/2017			<0.005	<0.005	<0.005	<0.005
1/13/2017	0.0078	<0.005				
3/16/2017	0.0062	<0.005	<0.005	<0.005	<0.005	
3/17/2017						<0.005
5/17/2017	0.0042 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
3/13/2018		<0.005	<0.005	0.0015 (J)	<0.005	
3/14/2018	0.0053					<0.005
6/8/2018			<0.005	0.002 (J)	<0.005	0.0012 (J)
6/9/2018	0.0044 (J)	0.0013 (J)				
10/17/2018						0.0014 (J)
10/19/2018				0.0022 (J)	0.0029 (J)	
11/13/2018			0.0019 (J)			
11/14/2018	0.005	0.0023 (J)				

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0002	<0.0002	9.1E-05 (J)	<0.0002			
3/1/2016					<0.0002	<0.0002	
3/2/2016							0.0027
5/2/2016	<0.0002		7.4E-05 (J)	<0.0002		<0.0002	
5/3/2016					<0.0002		0.003
5/4/2016		<0.0002					
7/5/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	0.0023
7/8/2016		<0.0002 (*)					
9/6/2016	<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002 (*)	
9/8/2016							0.0034
11/7/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
11/9/2016							0.0012
11/10/2016		<0.0002					
1/9/2017	<0.0002 (*)		<0.0002 (*)	<0.0002 (*)	<0.0002 (*)	<0.0002 (*)	
1/11/2017		<0.0002					
1/12/2017							0.0012
3/13/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/14/2017		<0.0002 (*)					
3/17/2017							0.0022
5/15/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
5/16/2017							0.0019
5/18/2017		<0.0002					
3/12/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/13/2018							0.0014
3/14/2018		9.3E-05 (J)					
6/5/2018	<0.0002		<0.0002	<0.0002			
6/6/2018					<0.0002	<0.0002	
6/8/2018							0.0018
6/10/2018		<0.0002					
10/16/2018	<0.0002		<0.0002	<0.0002			
10/17/2018					<0.0002	<0.0002	
10/18/2018		<0.0002					
11/13/2018							0.0021

Time Series

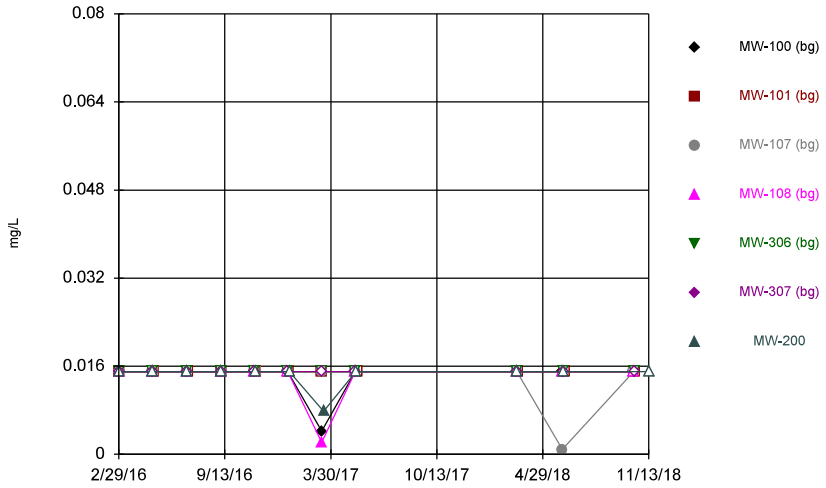
Constituent: Mercury (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.0026	<0.0002		<0.0002	<0.0002	0.00024
3/3/2016			0.00013 (J)			
5/3/2016		<0.0002	<0.0002	<0.0002	<0.0002	0.00036
5/4/2016	0.0022					
7/5/2016			<0.0002 (*)	<0.0002		0.0007
7/6/2016	0.0026	<0.0002 (*)			<0.0002	
9/8/2016	0.0027	<0.0002	7.4E-05 (J)	<0.0002	<0.0002	0.00081
11/8/2016	0.0016	<0.0002 (*)	<0.0002 (*)	<0.0002	<0.0002	
11/9/2016						0.00099
1/12/2017			<0.0002	<0.0002	<0.0002	0.00064
1/13/2017	0.0026	<0.0002				
3/16/2017	0.0015	0.00028	<0.0002	<0.0002	<0.0002	
3/17/2017						0.00033
5/17/2017	0.00016 (J)	<0.0002	0.00012 (J)	<0.0002	<0.0002	0.00034
3/13/2018		8.7E-05 (J)	0.00011 (J)	<0.0002	<0.0002	
3/14/2018	0.00051					0.0002
6/8/2018			<0.0002	<0.0002	<0.0002	0.00016 (J)
6/9/2018	0.00032	0.0007				
10/17/2018						0.00014 (J)
10/19/2018				0.00013 (J)	9.6E-05 (J)	
11/13/2018			<0.0002			
11/14/2018	8.2E-05 (J)	0.00024				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

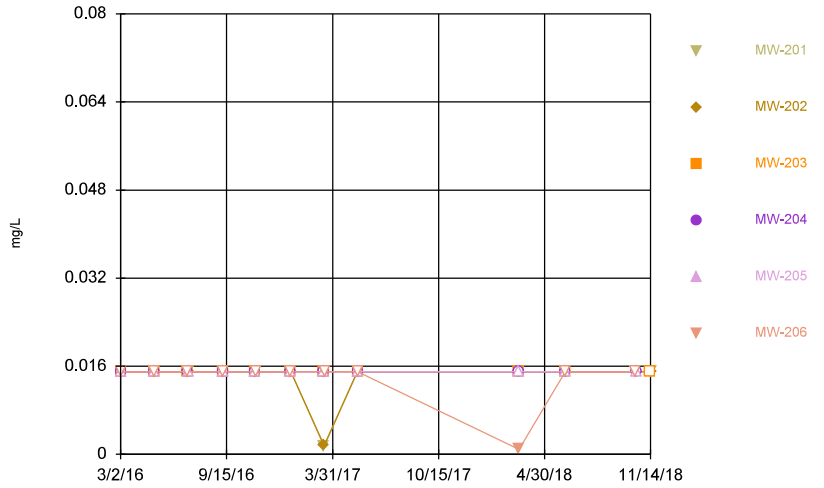
Time Series



Constituent: Molybdenum Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

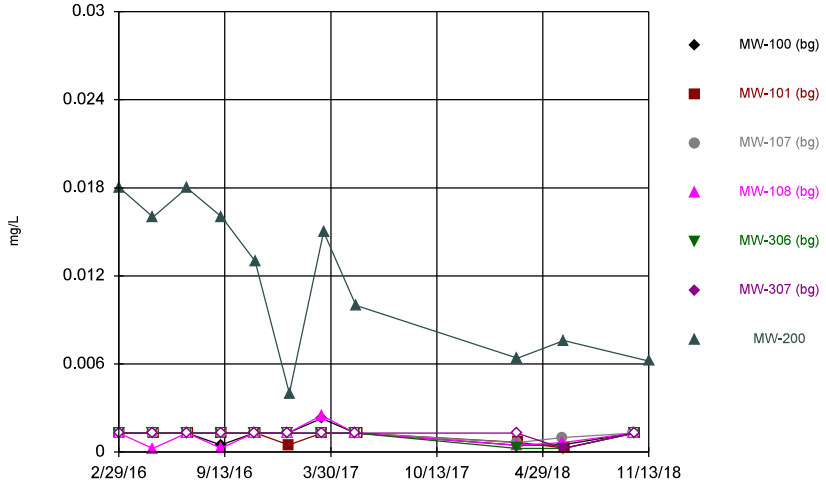
Time Series



Constituent: Molybdenum Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

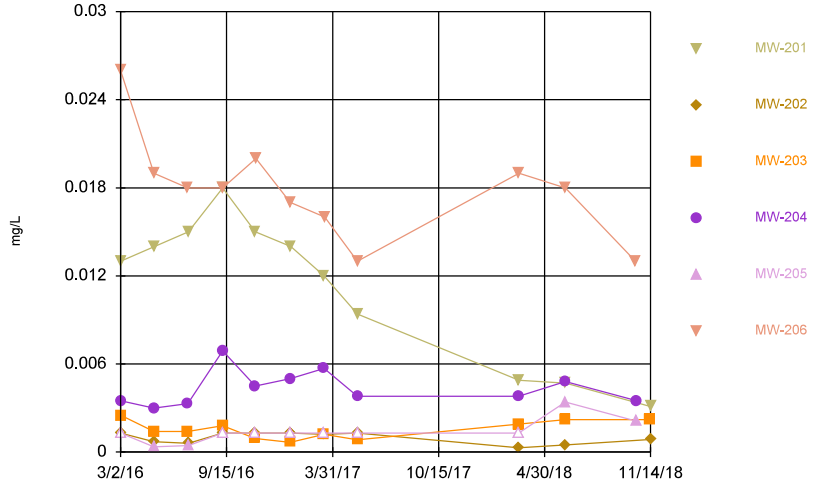
Time Series



Constituent: Selenium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.015	<0.015	<0.015	<0.015			
3/1/2016					<0.015	<0.015	
3/2/2016							<0.015
5/2/2016	<0.015		<0.015	<0.015		<0.015	
5/3/2016					<0.015		<0.015
5/4/2016		<0.015					
7/5/2016	<0.015		<0.015	<0.015	<0.015	<0.015	<0.015
7/8/2016		<0.015					
9/6/2016	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
9/8/2016							<0.015
11/7/2016	<0.015		<0.015	<0.015	<0.015	<0.015	
11/9/2016							<0.015
11/10/2016		<0.015					
1/9/2017	<0.015		<0.015	<0.015	<0.015	<0.015	
1/11/2017		<0.015					
1/12/2017							<0.015
3/13/2017	0.0042 (J)		<0.015	0.0022 (J)	<0.015	<0.015	
3/14/2017		<0.015					
3/17/2017							0.0078 (J)
5/15/2017	<0.015		<0.015	<0.015	<0.015	<0.015	
5/16/2017							<0.015
5/18/2017		<0.015					
3/12/2018	<0.015		<0.015	<0.015	<0.015	<0.015	
3/13/2018							<0.015
3/14/2018		<0.015					
6/5/2018	<0.015		0.00088 (J)	<0.015			
6/6/2018					<0.015	<0.015	
6/8/2018							<0.015
6/10/2018		<0.015					
10/16/2018	<0.015		<0.015	<0.015			
10/17/2018					<0.015	<0.015	
10/18/2018		<0.015					
11/13/2018							<0.015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	<0.015	<0.015		<0.015	<0.015	<0.015
3/3/2016			<0.015			
5/3/2016		<0.015	<0.015	<0.015	<0.015	<0.015
5/4/2016	<0.015					
7/5/2016			<0.015	<0.015		<0.015
7/6/2016	<0.015	<0.015			<0.015	
9/8/2016	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
11/8/2016	<0.015	<0.015	<0.015	<0.015	<0.015	
11/9/2016						<0.015
1/12/2017			<0.015	<0.015	<0.015	<0.015
1/13/2017	<0.015	<0.015				
3/16/2017	0.0015 (J)	0.0016 (J)	<0.015	<0.015	<0.015	
3/17/2017						<0.015
5/17/2017	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
3/13/2018		<0.015	<0.015	<0.015	<0.015	
3/14/2018	<0.015					0.00092 (J)
6/8/2018			<0.015	<0.015	<0.015	<0.015
6/9/2018	<0.015	<0.015				
10/17/2018						<0.015
10/19/2018				<0.015	<0.015	
11/13/2018			<0.015			
11/14/2018	<0.015	<0.015				

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	<0.0013	
3/2/2016							0.018
5/2/2016	<0.0013		<0.0013	0.00025 (J)		<0.0013	
5/3/2016					<0.0013		0.016
5/4/2016		<0.0013					
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	0.018
7/8/2016		<0.0013					
9/6/2016	0.00049 (J)	<0.0013	<0.0013	0.00027 (J)	<0.0013	<0.0013	
9/8/2016							0.016
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/9/2016							0.013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
1/11/2017		0.00049 (J)					
1/12/2017							0.004
3/13/2017	0.0023		<0.0013	0.0025	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/17/2017							0.015
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							0.01
5/18/2017		<0.0013					
3/12/2018	0.00046 (J)		0.00064 (J)	0.00047 (J)	0.00026 (J)	<0.0013	
3/13/2018							0.0064
3/14/2018		0.00067 (J)					
6/5/2018	0.00049 (J)		0.00098 (J)	0.00065 (J)			
6/6/2018					0.00025 (J)	0.00026 (J)	
6/8/2018							0.0076
6/10/2018		0.00028 (J)					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					
11/13/2018							0.0062

Time Series

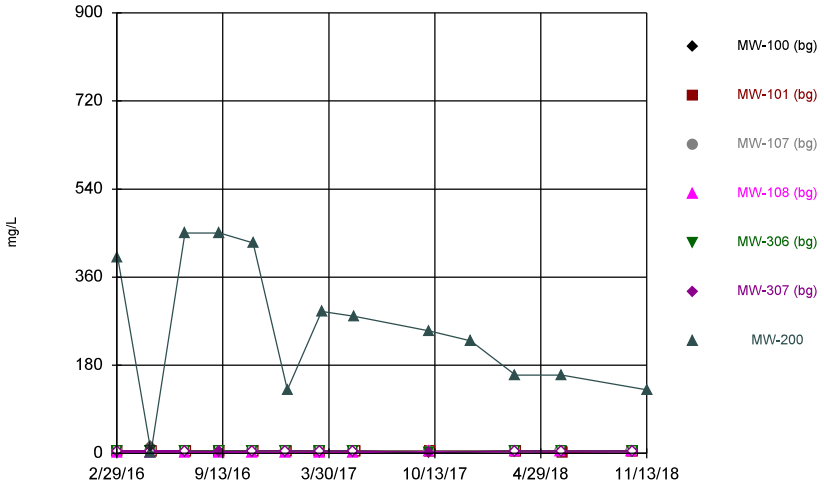
Constituent: Selenium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.013	<0.0013		0.0035 (J)	<0.0013	0.026
3/3/2016			0.0025 (J)			
5/3/2016		0.0007 (J)	0.0014	0.003	0.00035 (J)	0.019
5/4/2016	0.014					
7/5/2016			0.0014	0.0033		0.018
7/6/2016	0.015	0.0006 (J)			0.00044 (J)	
9/8/2016	0.018	<0.0013 (*)	0.0018	0.0069	<0.0013 (*)	0.018
11/8/2016	0.015	<0.0013	0.00093 (J)	0.0045	<0.0013	
11/9/2016						0.02
1/12/2017			0.00067 (J)	0.005	<0.0013	0.017
1/13/2017	0.014	<0.0013				
3/16/2017	0.012	0.0012 (J)	0.0012 (J)	0.0057	<0.0013	
3/17/2017						0.016
5/17/2017	0.0094	<0.0013	0.00084 (J)	0.0038	<0.0013	0.013
3/13/2018		0.00029 (J)	0.0019	0.0038	<0.0013	
3/14/2018	0.0049					0.019
6/8/2018			0.0022	0.0048	0.0034	0.018
6/9/2018	0.0047	0.00049 (J)				
10/17/2018						0.013
10/19/2018				0.0035	0.0021	
11/13/2018			0.0022			
11/14/2018	0.0031	0.00085 (J)				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

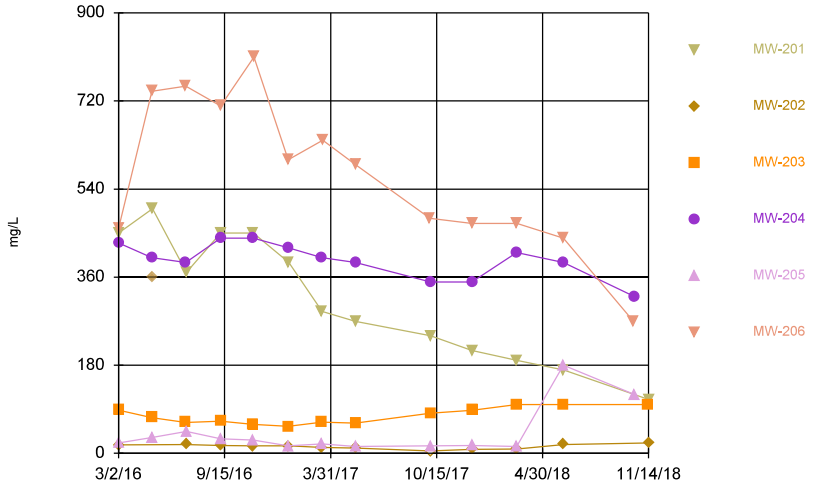
Time Series



Constituent: Sulfate Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

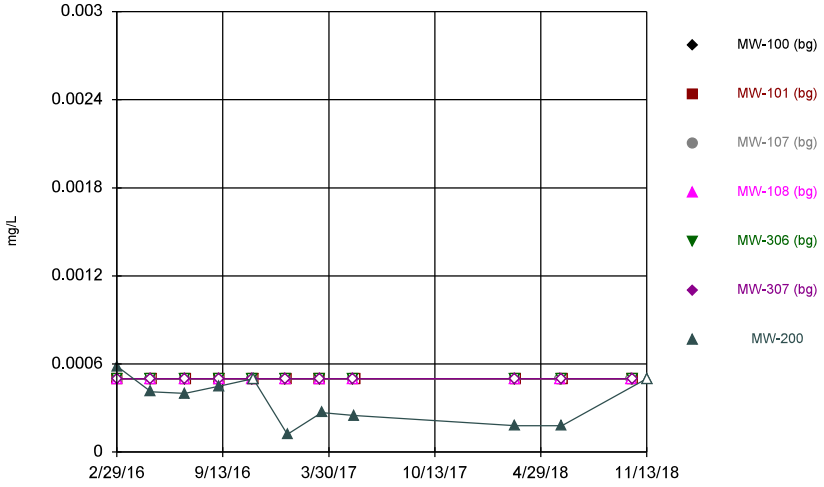
Time Series



Constituent: Sulfate Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

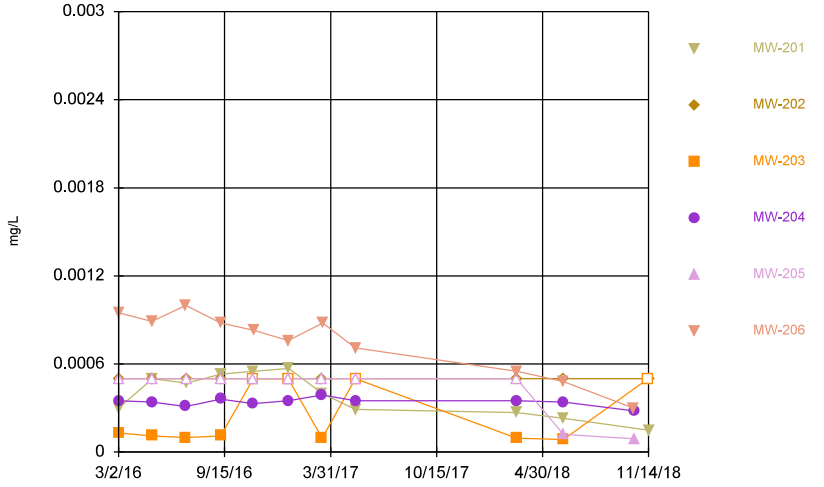
Time Series



Constituent: Thallium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<5	<5	<5	1.6 (J)			
3/1/2016					<5	<5	
3/2/2016							400
5/2/2016	15 (o)		<5	2.1 (J)		<5	
5/3/2016					<5		2.2 (J)
5/4/2016		<5					
7/5/2016	<5		<5	2 (J)	<5	<5	450 (J)
7/8/2016		<5					
9/6/2016	<5	<5	<5	1.8 (J)	<5	3.7 (J)	
9/8/2016							450
11/7/2016	<5		<5	1.7 (J)	<5	<5	
11/9/2016							430
11/10/2016		<5					
1/9/2017	<5		2.6 (J)	1.5 (J)	<5	<5	
1/11/2017		<5					
1/12/2017							130
3/13/2017	2.5 (J)		<5	2.2 (J)	<5	<5	
3/14/2017		<5					
3/17/2017							290
5/15/2017	<5		<5	1.9 (J)	<5	<5	
5/16/2017							280
5/18/2017		<5 (X)					
10/2/2017	<5		<5	3.4 (J)	1.5 (J)	1.7 (J)	
10/4/2017							250
10/5/2017		<5					
12/20/2017							230 (R)
3/12/2018	<5		<5	2.6 (J)	<5	<5	
3/13/2018							160
3/14/2018		<5					
6/5/2018	<5		<5	2.6 (J)			
6/6/2018					<5	<5	
6/8/2018							160
6/10/2018		1.5 (J)					
10/16/2018	<5		<5	2.8 (J)			
10/17/2018					<5	<5	
10/18/2018		<5					
11/13/2018							130

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	450	17		430	21	460
3/3/2016			88			
5/3/2016		360 (o)	73	400	32	740
5/4/2016	500					
7/5/2016			63	390		750
7/6/2016	370	18			45 (J)	
9/8/2016	450	16	66	440	30	710
11/8/2016	450	15	59	440	27	
11/9/2016						810
1/12/2017			55	420	15	600
1/13/2017	390	15				
3/16/2017	290	12 (V)	64	400	19	
3/17/2017						640
5/17/2017	270	11	62 (J)	390	14	590
10/3/2017						480
10/4/2017	240	<5 (*)	82	350	15	
12/20/2017	210 (R)	8	88	350	16	470
3/13/2018		8.6	100	410	14	
3/14/2018	190					470
6/8/2018			100	390	180	440
6/9/2018	170	18				
10/17/2018						270
10/19/2018				320	120	
11/13/2018			100			
11/14/2018	110	21				

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	<0.0005	<0.0005	<0.0005	<0.0005			
3/1/2016					<0.0005	<0.0005	
3/2/2016							0.00058 (J)
5/2/2016	<0.0005		<0.0005	<0.0005		<0.0005	
5/3/2016					<0.0005		0.00041 (J)
5/4/2016		<0.0005					
7/5/2016	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	0.0004 (J)
7/8/2016		<0.0005					
9/6/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/8/2016							0.00045 (J)
11/7/2016	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
11/9/2016							<0.0005
11/10/2016		<0.0005					
1/9/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
1/11/2017		<0.0005					
1/12/2017							0.00012 (J)
3/13/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
3/14/2017		<0.0005					
3/17/2017							0.00027 (J)
5/15/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
5/16/2017							0.00025 (J)
5/18/2017		<0.0005					
3/12/2018	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
3/13/2018							0.00018 (J)
3/14/2018		<0.0005					
6/5/2018	<0.0005		<0.0005	<0.0005			
6/6/2018					<0.0005	<0.0005	
6/8/2018							0.00018 (J)
6/10/2018		<0.0005					
10/16/2018	<0.0005		<0.0005	<0.0005			
10/17/2018					<0.0005	<0.0005	
10/18/2018		<0.0005					
11/13/2018							<0.0005

Time Series

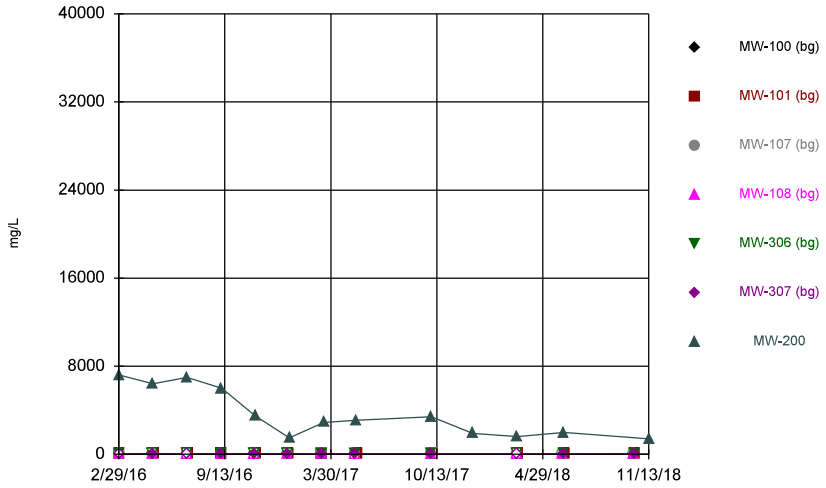
Constituent: Thallium (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	0.0003 (J)	<0.0005		0.00035 (J)	<0.0005	0.00095 (J)
3/3/2016			0.00013 (J)			
5/3/2016		<0.0005	0.00011 (J)	0.00034 (J)	<0.0005	0.00089
5/4/2016	0.0005					
7/5/2016			0.0001 (J)	0.00031 (J)		0.001
7/6/2016	0.00047 (J)	<0.0005			<0.0005	
9/8/2016	0.00053 (J)	<0.0005	0.00011 (J)	0.00036 (J)	<0.0005	0.00088 (J)
11/8/2016	0.00055 (J)	<0.0005	<0.0005	0.00033 (J)	<0.0005	
11/9/2016						0.00083 (J)
1/12/2017			<0.0005	0.00035 (J)	<0.0005	0.00076
1/13/2017	0.00057	<0.0005				
3/16/2017	0.0004 (J)	<0.0005	9.5E-05 (J)	0.00039 (J)	<0.0005	
3/17/2017						0.00088
5/17/2017	0.00029 (J)	<0.0005	<0.0005	0.00035 (J)	<0.0005	0.00071
3/13/2018		<0.0005	9.5E-05 (J)	0.00035 (J)	<0.0005	
3/14/2018	0.00027 (J)					0.00055
6/8/2018			8.5E-05 (J)	0.00034 (J)	0.00012 (J)	0.00048 (J)
6/9/2018	0.00023 (J)	<0.0005				
10/17/2018						0.0003 (J)
10/19/2018				0.00028 (J)	9E-05 (J)	
11/13/2018			<0.0005			
11/14/2018	0.00015 (J)	<0.0005				

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

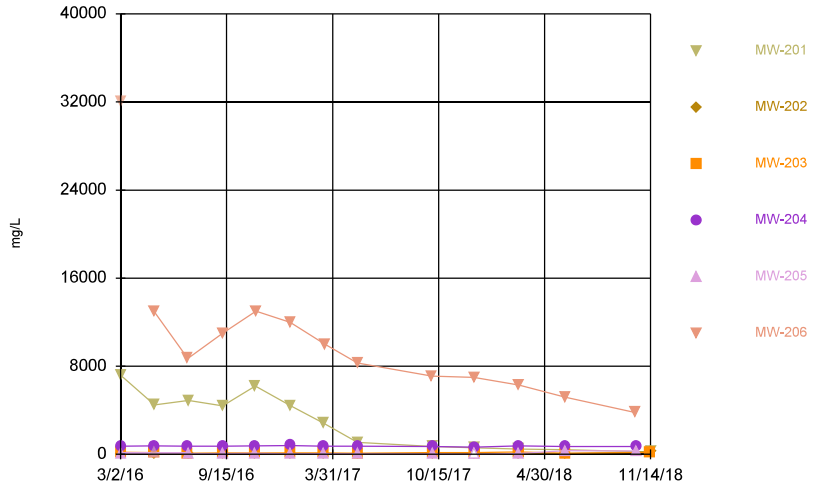
Time Series



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 11:20 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200
2/29/2016	20	20	<5	12			
3/1/2016					10	<5	
3/2/2016							7200
5/2/2016	<5		<5	6		36	
5/3/2016					<5		6400
5/4/2016		6					
7/5/2016	12		14	<5	<5	<5	7000
7/8/2016		6					
9/6/2016	36	36	30	38	36	44	
9/8/2016							6000
11/7/2016	18		8	<5	<5	30	
11/9/2016							3500
11/10/2016		16					
1/9/2017	4 (J)		<5	14	<5	12	
1/11/2017		38					
1/12/2017							1500
3/13/2017	6		<5	8	22	20	
3/14/2017		<5					
3/17/2017							2900
5/15/2017	<5		<5	<5	6	4 (J)	
5/16/2017							3100
5/18/2017		10					
10/2/2017	<5		<5	6	16	24	
10/4/2017							3400
10/5/2017		<5					
12/20/2017							1900 (R)
3/12/2018	18		14	<5	<5	<5	
3/13/2018							1600
3/14/2018		8					
6/5/2018	10		<5	14			
6/6/2018					20	16	
6/8/2018							2000
6/10/2018		8					
10/16/2018	32		12	6			
10/17/2018					44	44	
10/18/2018		28					
11/13/2018							1400

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 11:22 AM View: Descriptive - 200 Series

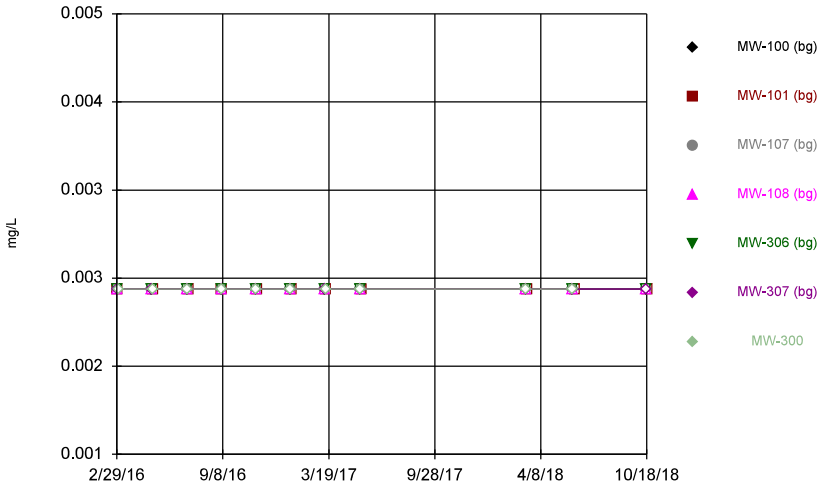
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-202	MW-203	MW-204	MW-205	MW-206
3/2/2016	7200	50		730	58	32000 (o)
3/3/2016			190			
5/3/2016		62	160	770	160 (o)	13000
5/4/2016	4500					
7/5/2016			96	730		8700
7/6/2016	4900	32			70	
9/8/2016	4400	68	140	750	66	11000 (Q)
11/8/2016	6200	56	130	770	100	
11/9/2016						13000
1/12/2017			120	790	44	12000
1/13/2017	4400	20				
3/16/2017	2800	42	130	750	70	
3/17/2017						10000
5/17/2017	1100	26	110	750	46	8300
10/3/2017						7100
10/4/2017	700	48	150	710	50	
12/20/2017	590 (R)	54	150	640	<5	7000
3/13/2018		52	210	760	66	
3/14/2018	490					6300
6/8/2018			98	700	320	5200
6/9/2018	430	72				
10/17/2018						3800
10/19/2018				700	310	
11/13/2018			150			
11/14/2018	230	230				

300 Series

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

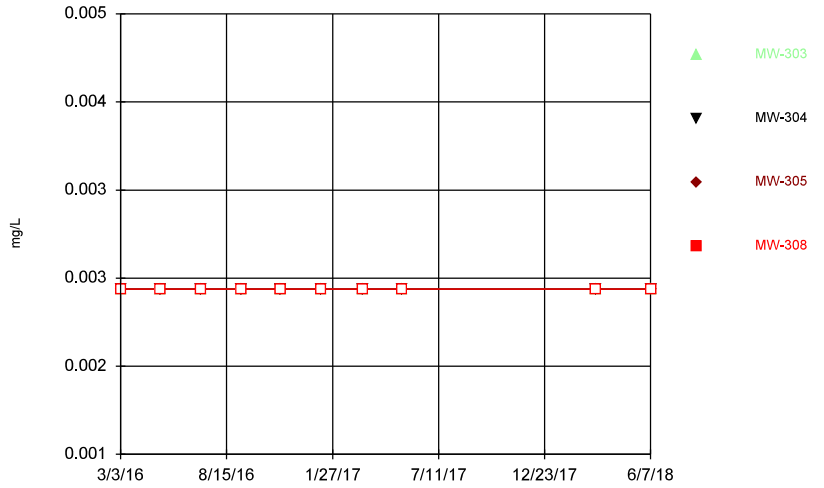
Time Series



Constituent: Antimony Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

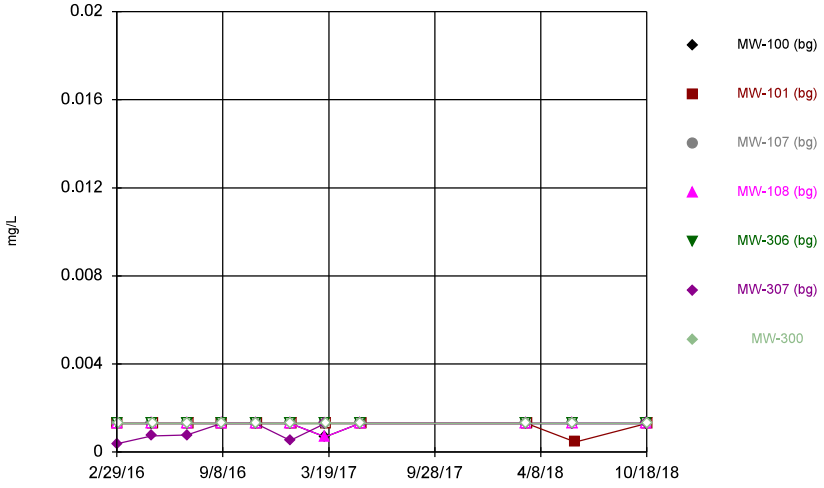
Time Series



Constituent: Antimony Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

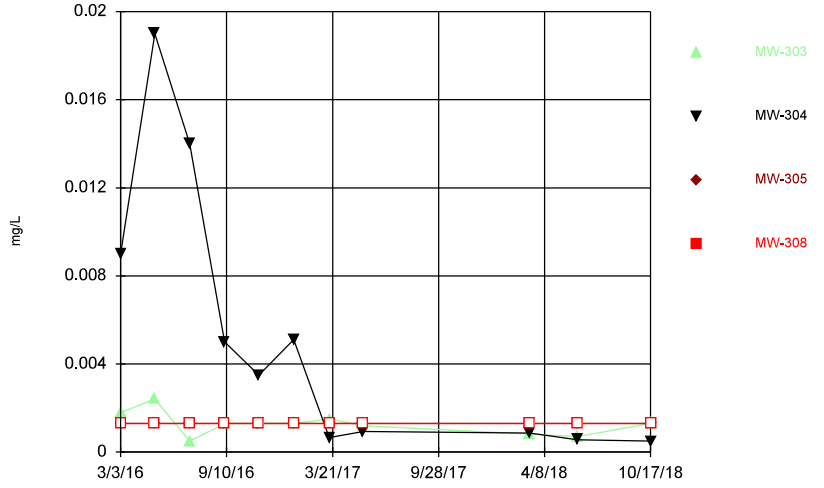
Time Series



Constituent: Arsenic Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/3/2016							<0.0025
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		
5/4/2016		<0.0025					<0.0025
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
7/7/2016							<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/7/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/8/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/10/2017							<0.0025
1/11/2017		<0.0025					
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/15/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	<0.0025	<0.0025	<0.0025	<0.0025
7/6/2016	<0.0025	<0.0025		<0.0025
7/7/2016			<0.0025	
9/7/2016		<0.0025	<0.0025	<0.0025
9/8/2016	<0.0025			
11/7/2016			<0.0025	
11/8/2016	<0.0025	<0.0025		<0.0025
1/10/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/15/2017		<0.0025	<0.0025	
3/16/2017	<0.0025			<0.0025
5/15/2017	<0.0025			
5/16/2017		<0.0025	<0.0025	<0.0025
3/13/2018	<0.0025	<0.0025	<0.0025	<0.0025
6/7/2018	<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	0.00038 (J)	
3/3/2016							<0.0013
5/2/2016	<0.0013		<0.0013	<0.0013		0.00073 (J)	
5/3/2016					<0.0013		
5/4/2016		<0.0013					<0.0013
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	0.00077 (J)	
7/7/2016							<0.0013
7/8/2016		<0.0013					
9/6/2016	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	
9/7/2016							<0.0013
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/8/2016							<0.0013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	0.00053 (J)	
1/10/2017							<0.0013
1/11/2017		<0.0013					
3/13/2017	0.00069 (J)		<0.0013	0.00069 (J)	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/15/2017							<0.0013
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							<0.0013
5/18/2017		<0.0013					
3/12/2018	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/13/2018							<0.0013
3/14/2018		<0.0013					
6/5/2018	<0.0013		<0.0013	<0.0013			
6/6/2018					<0.0013	<0.0013	<0.0013
6/10/2018		0.00046 (J)					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					<0.0013

Time Series

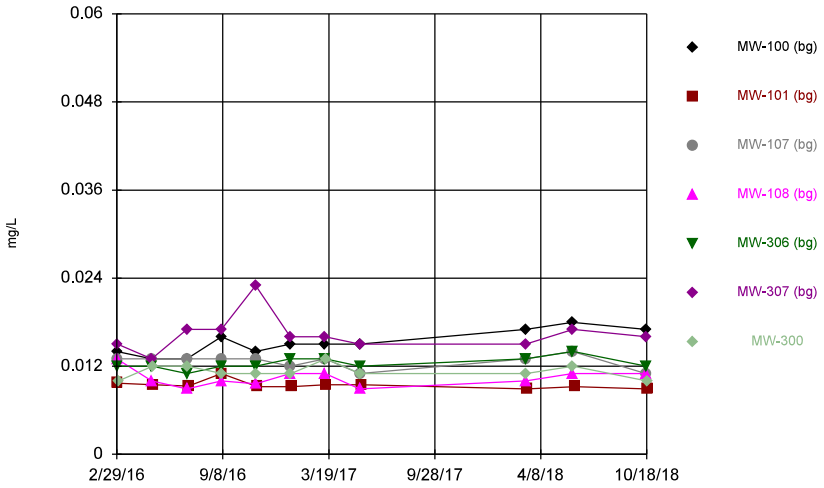
Constituent: Arsenic (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.0018 (J)	0.009	<0.0013	<0.0013
5/4/2016	0.0024	0.019	<0.0013	<0.0013
7/6/2016	0.0005 (J)	0.014		<0.0013
7/7/2016			<0.0013	
9/7/2016		0.005	<0.0013	<0.0013
9/8/2016	<0.0013			
11/7/2016			<0.0013	
11/8/2016	<0.0013	0.0035		<0.0013
1/10/2017	<0.0013	0.0051	<0.0013	<0.0013
3/15/2017		0.00066 (J)	<0.0013	
3/16/2017	0.0015			<0.0013
5/15/2017	0.0012 (J)			
5/16/2017		0.00094 (J)	<0.0013	<0.0013
3/13/2018	0.00082 (J)	0.00086 (J)	<0.0013	<0.0013
6/7/2018	0.0007 (J)	0.00056 (J)	<0.0013	<0.0013
10/17/2018	<0.0013	0.0005 (J)	<0.0013	<0.0013

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

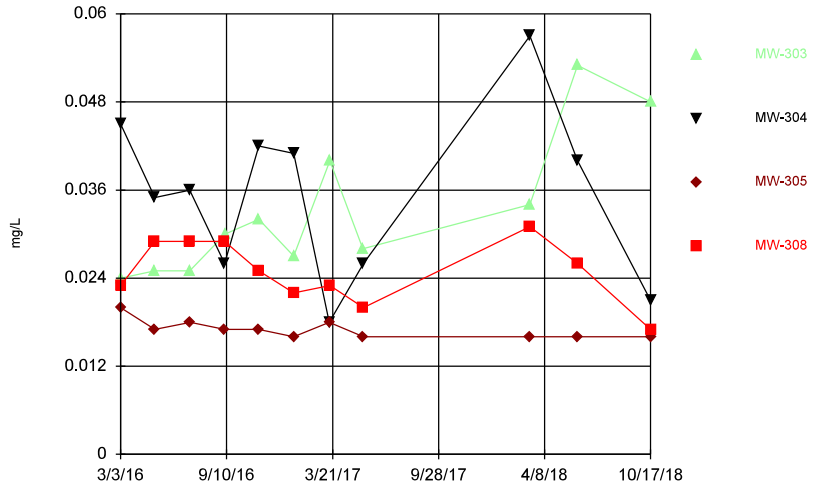
Time Series



Constituent: Barium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

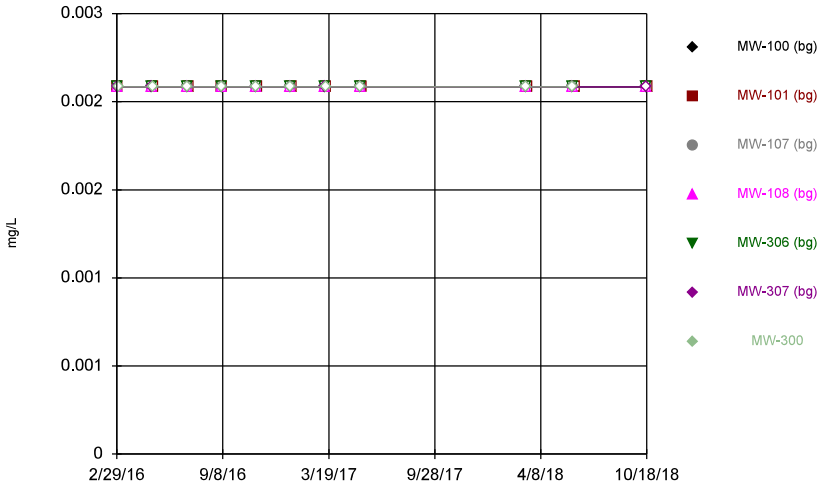
Time Series



Constituent: Barium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

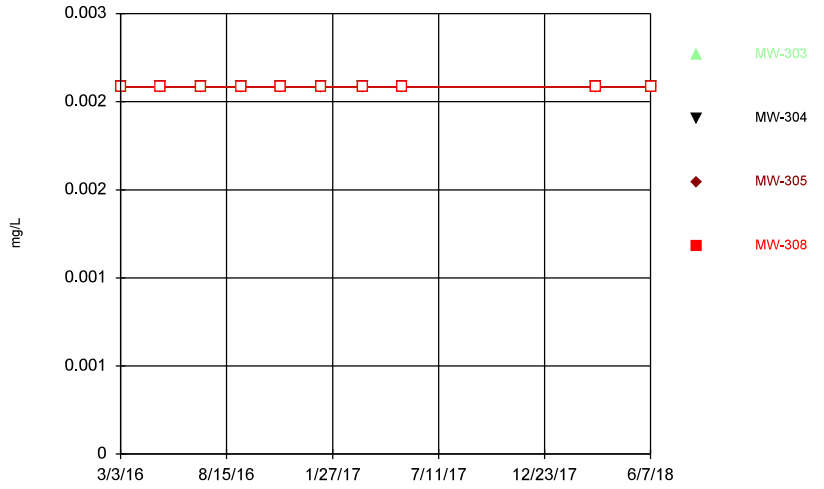
Time Series



Constituent: Beryllium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	0.014	0.0097 (J)	0.013	0.013			
3/1/2016					0.012	0.015	
3/3/2016							0.01 (J)
5/2/2016	0.013		0.013	0.01		0.013	
5/3/2016					0.012		
5/4/2016		0.0095					0.012
7/5/2016	0.013		0.013	0.0089	0.011	0.017	
7/7/2016							0.012
7/8/2016		0.0093					
9/6/2016	0.016	0.011	0.013	0.01	0.012	0.017	
9/7/2016							0.011
11/7/2016	0.014		0.013	0.0096	0.012	0.023	
11/8/2016							0.011
11/10/2016		0.0092					
1/9/2017	0.015		0.012	0.011	0.013	0.016	
1/10/2017							0.011
1/11/2017		0.0092					
3/13/2017	0.015		0.013	0.011	0.013	0.016	
3/14/2017		0.0095					
3/15/2017							0.013
5/15/2017	0.015		0.011	0.0089	0.012	0.015	
5/16/2017							0.011
5/18/2017		0.0095					
3/12/2018	0.017		0.013	0.01	0.013	0.015	
3/13/2018							0.011
3/14/2018		0.0089					
6/5/2018	0.018		0.014	0.011			
6/6/2018					0.014	0.017	0.012
6/10/2018		0.0092					
10/16/2018	0.017		0.011	0.011			
10/17/2018					0.012	0.016	
10/18/2018		0.0089					0.01

Time Series

Constituent: Barium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.024	0.045	0.02	0.023
5/4/2016	0.025	0.035	0.017	0.029
7/6/2016	0.025	0.036		0.029
7/7/2016			0.018	
9/7/2016		0.026	0.017	0.029
9/8/2016	0.03			
11/7/2016			0.017	
11/8/2016	0.032	0.042		0.025
1/10/2017	0.027	0.041	0.016	0.022
3/15/2017		0.018	0.018	
3/16/2017	0.04			0.023
5/15/2017	0.028			
5/16/2017		0.026	0.016	0.02
3/13/2018	0.034	0.057	0.016	0.031
6/7/2018	0.053	0.04	0.016	0.026
10/17/2018	0.048	0.021	0.016	0.017

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/3/2016							<0.0025
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		
5/4/2016		<0.0025					<0.0025
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
7/7/2016							<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/7/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/8/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/10/2017							<0.0025
1/11/2017		<0.0025					
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/15/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					

Time Series

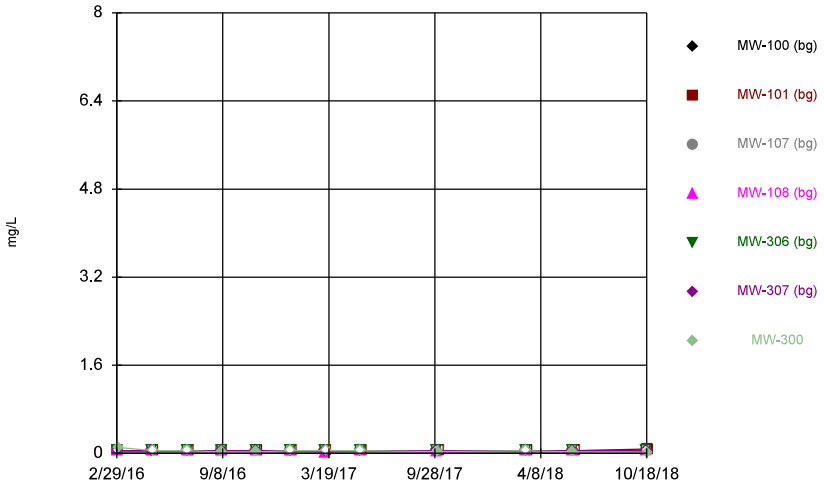
Constituent: Beryllium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	<0.0025	<0.0025	<0.0025	<0.0025
7/6/2016	<0.0025	<0.0025		<0.0025
7/7/2016			<0.0025	
9/7/2016		<0.0025	<0.0025	<0.0025
9/8/2016	<0.0025			
11/7/2016			<0.0025	
11/8/2016	<0.0025	<0.0025		<0.0025
1/10/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/15/2017		<0.0025	<0.0025	
3/16/2017	<0.0025			<0.0025
5/15/2017	<0.0025			
5/16/2017		<0.0025	<0.0025	<0.0025
3/13/2018	<0.0025	<0.0025	<0.0025	<0.0025
6/7/2018	<0.0025	<0.0025	<0.0025	<0.0025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

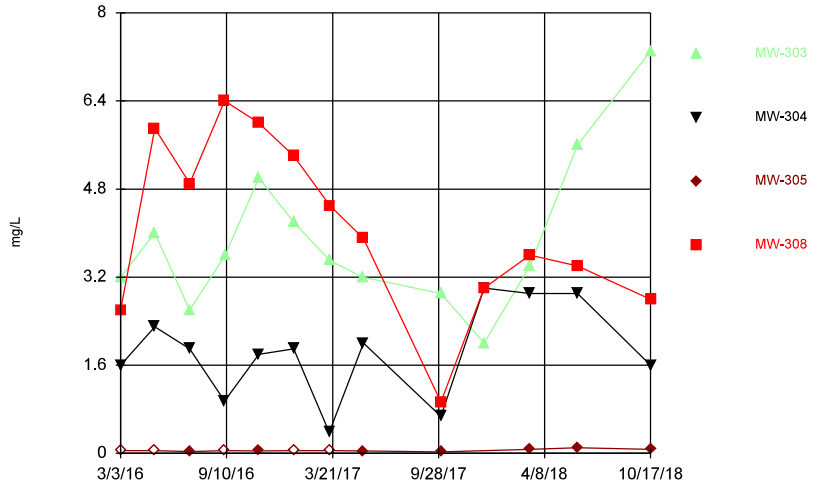
Time Series



Constituent: Boron Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

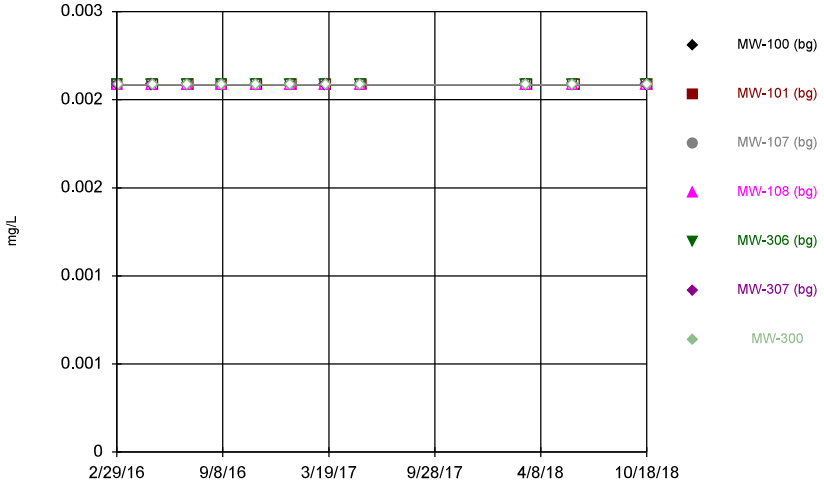
Time Series



Constituent: Boron Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

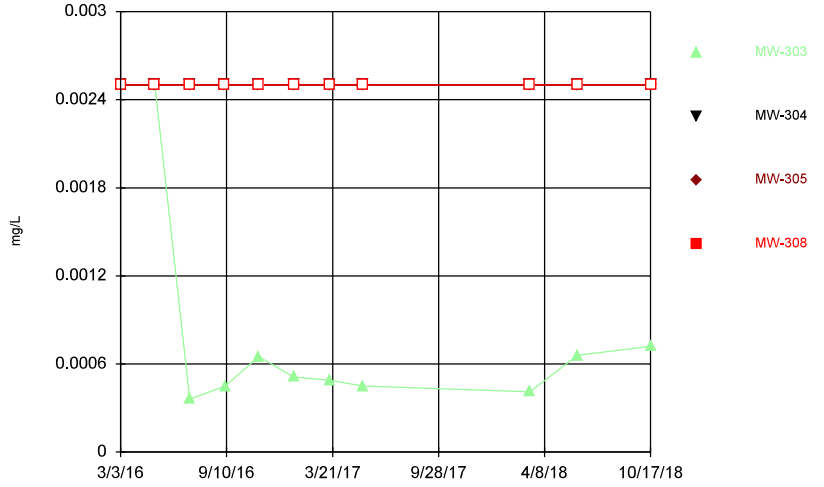
Time Series



Constituent: Cadmium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.05	<0.05	<0.05	<0.05			
3/1/2016					<0.05	<0.05	
3/3/2016							0.11 (J)
5/2/2016	<0.05		<0.05	<0.05		<0.05	
5/3/2016					<0.05		
5/4/2016		<0.05					<0.05
7/5/2016	<0.05		<0.05	<0.05	<0.05	<0.05	
7/7/2016							<0.05
7/8/2016		<0.05					
9/6/2016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
9/7/2016							0.028 (J)
11/7/2016	<0.05		<0.05	<0.05	<0.05	<0.05	
11/8/2016							0.025 (J)
11/10/2016		<0.05					
1/9/2017	<0.05		<0.05	<0.05	<0.05	<0.05	
1/10/2017							<0.05 (*)
1/11/2017		<0.05					
3/13/2017	<0.05		<0.05	0.022 (J)	<0.05	<0.05	
3/14/2017		<0.05					
3/15/2017							<0.05
5/15/2017	<0.05		<0.05	<0.05	<0.05	<0.05	
5/16/2017							<0.05
5/18/2017		<0.05					
10/2/2017	<0.05		<0.05	0.023 (J)	<0.05	<0.05	
10/3/2017							0.03 (J)
10/5/2017		<0.05					
3/12/2018	<0.05		<0.05	<0.05	<0.05	<0.05	
3/13/2018							<0.05
3/14/2018		<0.05					
6/5/2018	<0.05		<0.05	<0.05			
6/6/2018					<0.05	<0.05	0.024 (J)
6/10/2018		<0.05					
10/16/2018	<0.05		<0.05	<0.05			
10/17/2018					<0.05	<0.05	
10/18/2018		0.081					0.022 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	3.2	1.6	<0.05	2.6
5/4/2016	4	2.3	<0.05 (*)	5.9
7/6/2016	2.6	1.9		4.9
7/7/2016			0.034 (J)	
9/7/2016		0.95	<0.05	6.4
9/8/2016	3.6			
11/7/2016			0.045 (J)	
11/8/2016	5	1.8		6
1/10/2017	4.2	1.9	<0.05 (*)	5.4
3/15/2017		0.38	<0.05	
3/16/2017	3.5			4.5
5/15/2017	3.2			
5/16/2017		2	0.043 (J)	3.9
10/3/2017	2.9	0.67	0.026 (J)	0.93
12/20/2017	2	3		3
3/13/2018	3.4	2.9	0.07	3.6
6/7/2018	5.6	2.9	0.1	3.4
10/17/2018	7.3	1.6	0.074	2.8

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	<0.0025	
3/3/2016							<0.0025
5/2/2016	<0.0025		<0.0025	<0.0025		<0.0025	
5/3/2016					<0.0025		
5/4/2016		<0.0025					<0.0025
7/5/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
7/7/2016							<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/7/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/8/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
1/10/2017							<0.0025
1/11/2017		<0.0025					
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/15/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					<0.0025

Time Series

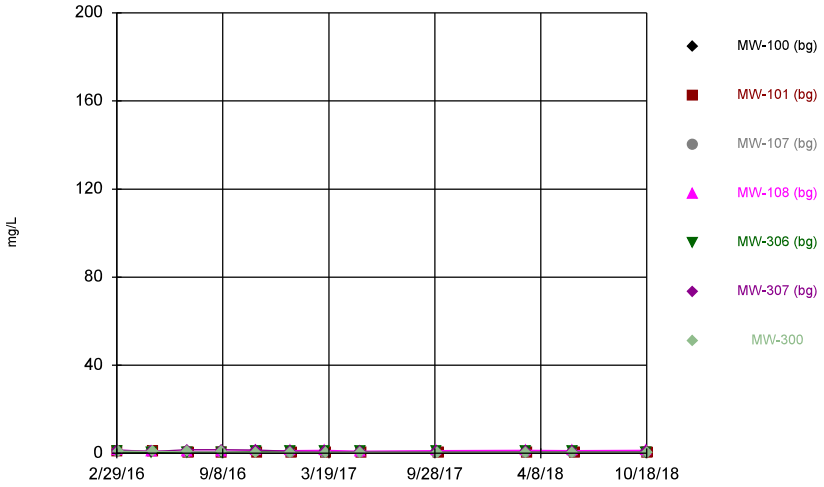
Constituent: Cadmium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	<0.0025	<0.0025	<0.0025	<0.0025
7/6/2016	0.00036 (J)	<0.0025		<0.0025
7/7/2016			<0.0025	
9/7/2016		<0.0025	<0.0025	<0.0025
9/8/2016	0.00045 (J)			
11/7/2016			<0.0025	
11/8/2016	0.00065 (J)	<0.0025		<0.0025
1/10/2017	0.00051 (J)	<0.0025	<0.0025	<0.0025
3/15/2017		<0.0025	<0.0025	
3/16/2017	0.00049 (J)			<0.0025
5/15/2017	0.00045 (J)			
5/16/2017		<0.0025	<0.0025	<0.0025
3/13/2018	0.00041 (J)	<0.0025	<0.0025	<0.0025
6/7/2018	0.00066 (J)	<0.0025	<0.0025	<0.0025
10/17/2018	0.00072 (J)	<0.0025	<0.0025	<0.0025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

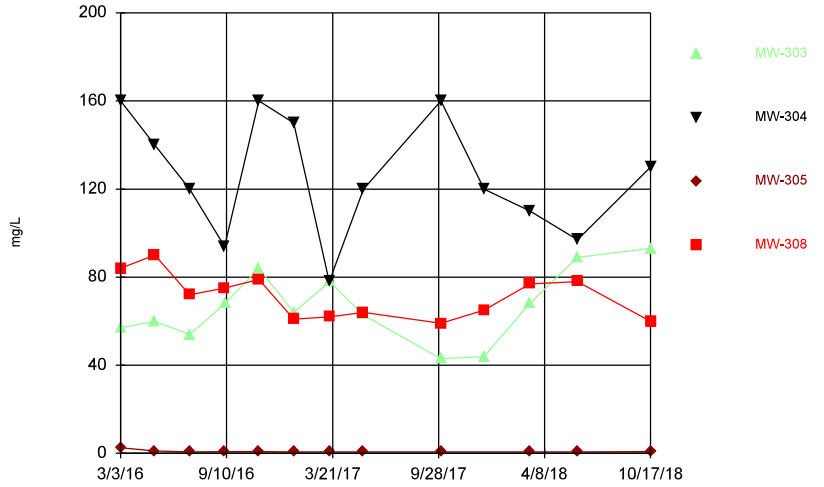


Constituent: Calcium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

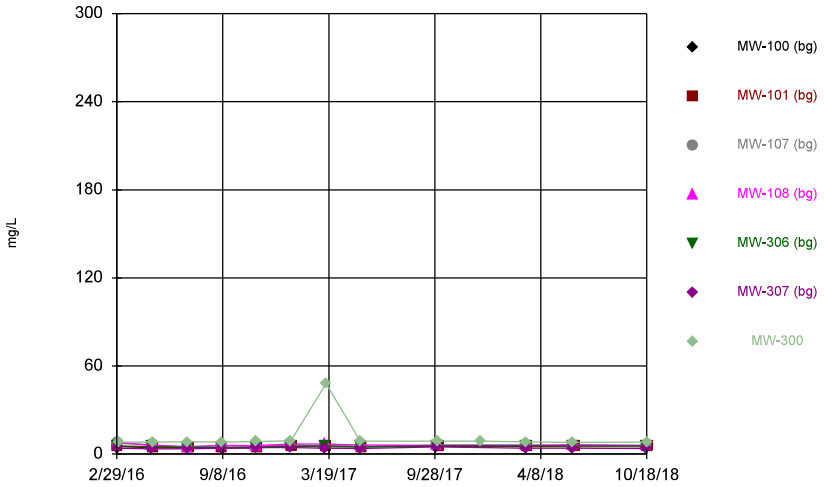


Constituent: Calcium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series

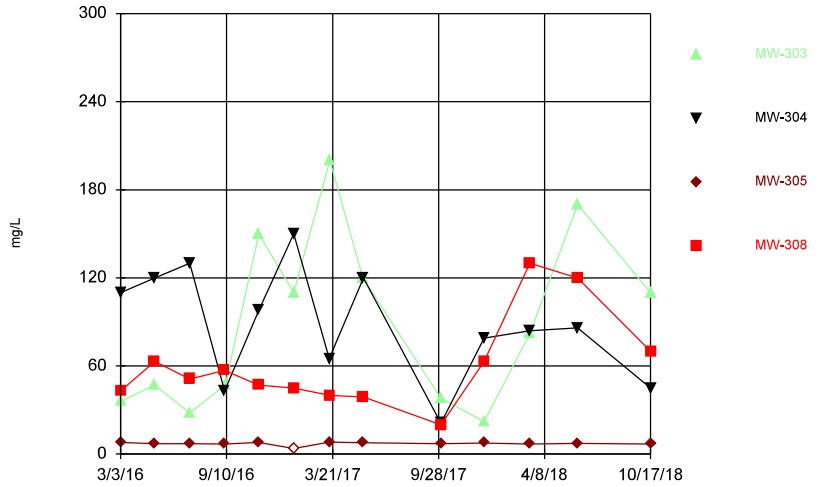


Constituent: Chloride Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	1	1 (J)	0.67	1.4			
3/1/2016					0.6	1.5	
3/3/2016							1 (J)
5/2/2016	0.78		0.58	1.1		0.83	
5/3/2016					0.55		
5/4/2016		0.62					1
7/5/2016	0.65		0.43	0.94	0.53	1.6	
7/7/2016							0.62
7/8/2016		0.4					
9/6/2016	0.7	0.45	0.48	1	0.5	1.6	
9/7/2016							0.6
11/7/2016	0.8		0.56	1.2	0.68	1.5	
11/8/2016							0.53
11/10/2016		0.44					
1/9/2017	0.74		0.43	1.2	0.56	0.98	
1/10/2017							0.51
1/11/2017		0.42					
3/13/2017	0.78		0.48	1.3	0.62	0.75	
3/14/2017		0.42					
3/15/2017							0.53
5/15/2017	0.76		0.37	1	0.58	0.83	
5/16/2017							0.48
5/18/2017		0.38					
10/2/2017	0.78		0.47	1.2	0.62	0.83	
10/3/2017							0.46
10/5/2017		0.39					
3/12/2018	0.88		0.49	1.4	0.59	0.71	
3/13/2018							0.46
3/14/2018		0.49					
6/5/2018	0.9		0.49	1.2			
6/6/2018					0.59	0.68	0.45
6/10/2018		0.39					
10/16/2018	0.86		0.42	1.4			
10/17/2018					0.54	0.66	
10/18/2018		0.41					0.48

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	57	160	2.5	84
5/4/2016	60	140	1.1	90
7/6/2016	54	120		72
7/7/2016			0.71	
9/7/2016		94	0.78	75
9/8/2016	68			
11/7/2016			0.82	
11/8/2016	84	160		79
1/10/2017	64	150	0.58	61
3/15/2017		78	0.69	
3/16/2017	78			62
5/15/2017	63			
5/16/2017		120	0.66	64
10/3/2017	43	160	0.68	59
12/20/2017	44	120		65
3/13/2018	68	110	0.65	77
6/7/2018	89	97	0.6	78
10/17/2018	93	130	0.73	60

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	5.3	5.4	8.1	7.4			
3/1/2016					5.6	4	
3/3/2016							8.2
5/2/2016	4.4		6	6.3		3.6	
5/3/2016					5.1		
5/4/2016		4.5					8.2
7/5/2016	4.2		5.2	4.8	4.7	3.6	
7/7/2016							8.3
7/8/2016		4.9					
9/6/2016	4.3	4.3	5.5	6	4.4	4	
9/7/2016							8.1
11/7/2016	4.2		5.4	5.7	4.6	4.4	
11/8/2016							8.5
11/10/2016		4.5					
1/9/2017	5.3		6.1	6.8	5.3	4.4	
1/10/2017							9.1
1/11/2017		5.3					
3/13/2017	5.2		5.5	6.8	5.6	4.1	
3/14/2017		5.5					
3/15/2017							48
5/15/2017	4.8		4.7	6.1	5.2	3.7	
5/16/2017							8.9
5/18/2017		5					
10/2/2017	5.5		6.1	6	5.5	4.8	
10/3/2017							8.9
10/5/2017		5.6					
12/20/2017							8.8
3/12/2018	5.3		6.1	5.9	5.6	4	
3/13/2018							8.3
3/14/2018		5.2					
6/5/2018	5.3		5.5	6.5			
6/6/2018					5.6	4.1	8
6/10/2018		5.2					
10/16/2018	5.5		5.1	5.9			
10/17/2018					5.5	3.7	
10/18/2018		5.2					8.1

Time Series

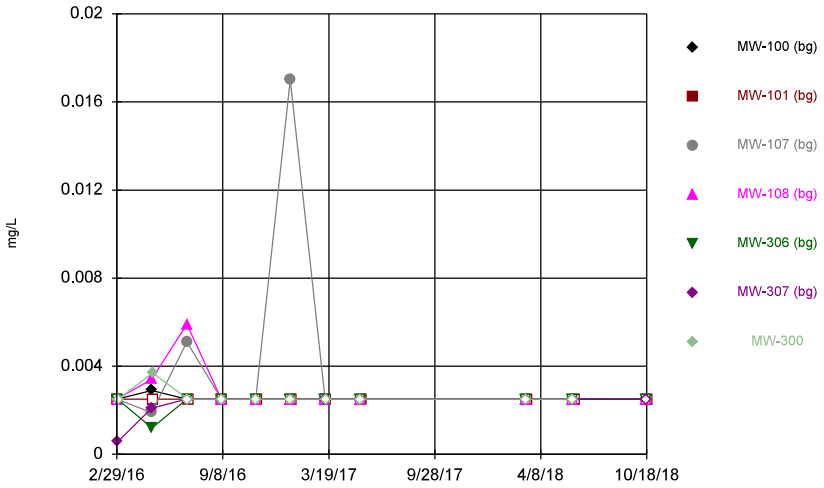
Constituent: Chloride (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	36	110	7.9	43
5/4/2016	47	120	7	63
7/6/2016	28	130		51
7/7/2016			7.1	
9/7/2016		43	6.9	57
9/8/2016	47			
11/7/2016			8	
11/8/2016	150	98		47
1/10/2017	110	150	<7.4 (*)	45
3/15/2017		65	8.1	
3/16/2017	200			40
5/15/2017	120			
5/16/2017		120	7.8	39
10/3/2017	38	21	7.1	20
12/20/2017	22	79	7.6	63
3/13/2018	82	84	6.9	130
6/7/2018	170	86	7.3	120
10/17/2018	110	45	6.8	70

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

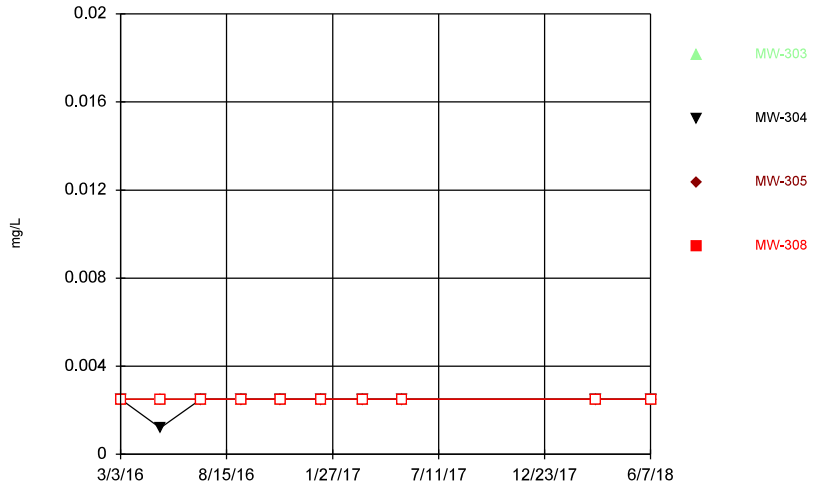
Time Series



Constituent: Chromium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

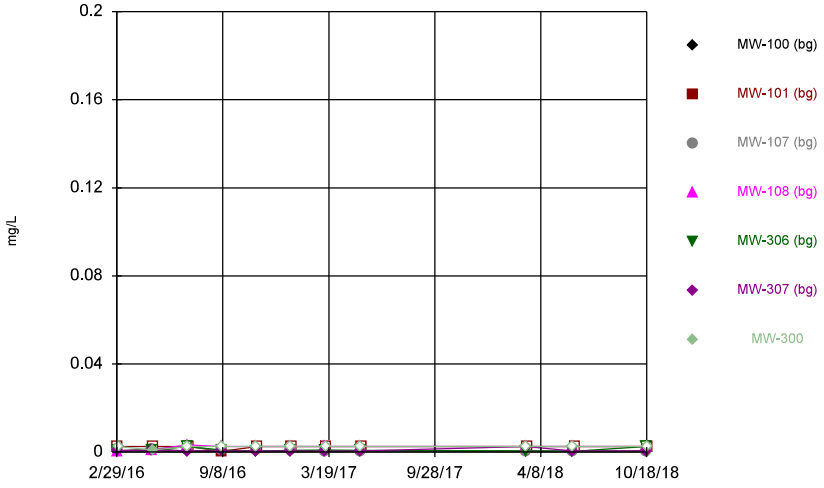
Time Series



Constituent: Chromium Analysis Run 2/11/2019 11:25 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

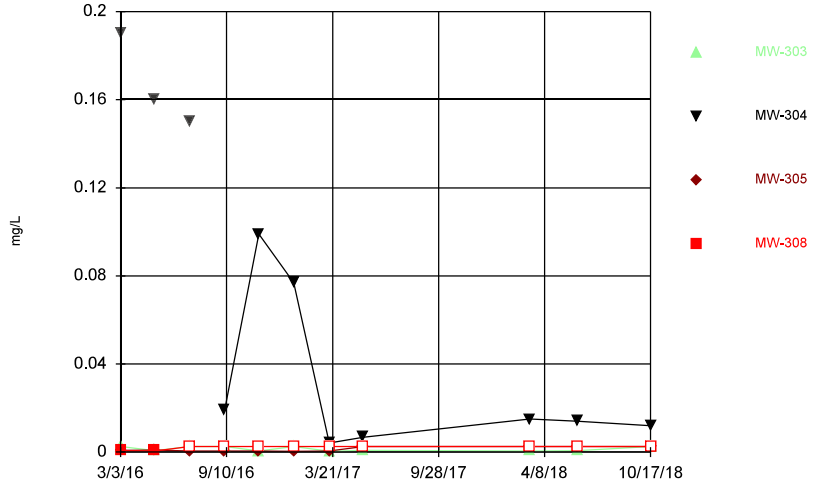
Time Series



Constituent: Cobalt Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0025	<0.0025	<0.0025	<0.0025			
3/1/2016					<0.0025	0.00056 (J)	
3/3/2016							<0.0025
5/2/2016	0.0029		0.0019 (J)	0.0034		0.0021 (J)	
5/3/2016					0.0012 (J)		
5/4/2016		<0.0025					0.0037
7/5/2016	<0.0025		0.0051	0.0059	<0.0025	<0.0025	
7/7/2016							<0.0025
7/8/2016		<0.0025					
9/6/2016	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/7/2016							<0.0025
11/7/2016	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
11/8/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	<0.0025		0.017	<0.0025	<0.0025	<0.0025	
1/10/2017							<0.0025
1/11/2017		<0.0025					
3/13/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/14/2017		<0.0025					
3/15/2017							<0.0025
5/15/2017	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	<0.0025		<0.0025	<0.0025	<0.0025	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	<0.0025		<0.0025	<0.0025			
6/6/2018					<0.0025	<0.0025	<0.0025
6/10/2018		<0.0025					
10/16/2018	<0.0025		<0.0025	<0.0025			
10/17/2018					<0.0025	<0.0025	
10/18/2018		<0.0025					

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0025	<0.0025	<0.0025	<0.0025
5/4/2016	<0.0025	0.0012 (J)	0.0025	<0.0025
7/6/2016	<0.0025	<0.0025		<0.0025
7/7/2016			<0.0025	
9/7/2016		<0.0025	<0.0025	<0.0025
9/8/2016	<0.0025			
11/7/2016			<0.0025	
11/8/2016	<0.0025	<0.0025		<0.0025
1/10/2017	<0.0025	<0.0025	<0.0025	<0.0025
3/15/2017		<0.0025	<0.0025	
3/16/2017	<0.0025			<0.0025
5/15/2017	<0.0025			
5/16/2017		<0.0025	<0.0025	<0.0025
3/13/2018	<0.0025	<0.0025	<0.0025	<0.0025
6/7/2018	<0.0025	<0.0025	<0.0025	<0.0025

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	0.00039 (J)	<0.0025	0.00064 (J)	0.00023 (J)			
3/1/2016					0.00064 (J)	0.00071 (J)	
3/3/2016							<0.0025
5/2/2016	0.0013 (J)		0.0014 (J)	0.00092 (J)		0.001 (J)	
5/3/2016					0.00079 (J)		
5/4/2016		<0.0025					0.00093 (J)
7/5/2016	0.00049 (J)		0.0027	0.0032	<0.0025	0.00055 (J)	
7/7/2016							<0.0025
7/8/2016		<0.0025					
9/6/2016	0.00062 (J)	0.00042 (J)	0.00062 (J)	<0.0025	0.00094 (J)	0.00057 (J)	
9/7/2016							<0.0025
11/7/2016	0.00049 (J)		0.00058 (J)	<0.0025	0.00041 (J)	0.00047 (J)	
11/8/2016							<0.0025
11/10/2016		<0.0025					
1/9/2017	0.00045 (J)		0.00059 (J)	<0.0025	0.00074 (J)	0.00054 (J)	
1/10/2017							<0.0025
1/11/2017		<0.0025					
3/13/2017	0.00048 (J)		0.0005 (J)	<0.0025	0.00091 (J)	0.0004 (J)	
3/14/2017		<0.0025					
3/15/2017							<0.0025
5/15/2017	0.00052 (J)		0.00046 (J)	<0.0025	0.00075 (J)	0.00046 (J)	
5/16/2017							<0.0025
5/18/2017		<0.0025					
3/12/2018	0.00055 (J)		0.00055 (J)	<0.0025	0.00044 (J)	<0.0025	
3/13/2018							<0.0025
3/14/2018		<0.0025					
6/5/2018	0.00051 (J)		0.00052 (J)	<0.0025			
6/6/2018					0.0004 (J)	0.00048 (J)	<0.0025
6/10/2018		<0.0025					
10/16/2018	0.00058 (J)		0.00045 (J)	<0.0025			
10/17/2018					<0.0025	0.00043 (J)	
10/18/2018		<0.0025					<0.0025

Time Series

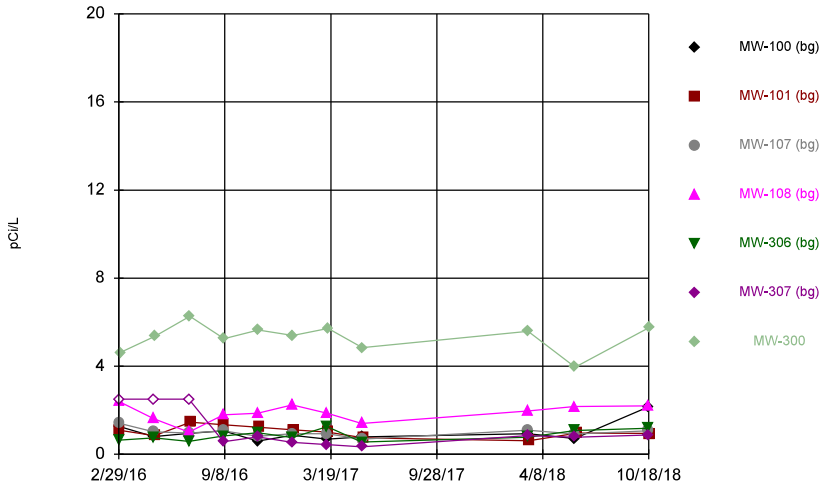
Constituent: Cobalt (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0025	0.19 (o)	0.00085 (J)	0.00063 (J)
5/4/2016	0.0007 (J)	0.16 (o)	0.001 (J)	0.00056 (J)
7/6/2016	<0.0025	0.15 (o)		<0.0025
7/7/2016			0.00044 (J)	
9/7/2016		0.019	0.00052 (J)	<0.0025
9/8/2016	<0.0025			
11/7/2016			0.00046 (J)	
11/8/2016	0.00051 (J)	0.099		<0.0025
1/10/2017	<0.0025	0.077	0.00042 (J)	<0.0025
3/15/2017		0.0042	0.00044 (J)	
3/16/2017	0.0004 (J)			<0.0025
5/15/2017	0.00079 (J)			
5/16/2017		0.0067	<0.0025	<0.0025
3/13/2018	0.00056 (J)	0.015	<0.0025	<0.0025
6/7/2018	0.0007 (J)	0.014	<0.0025	<0.0025
10/17/2018	<0.0025	0.012	<0.0025	<0.0025

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

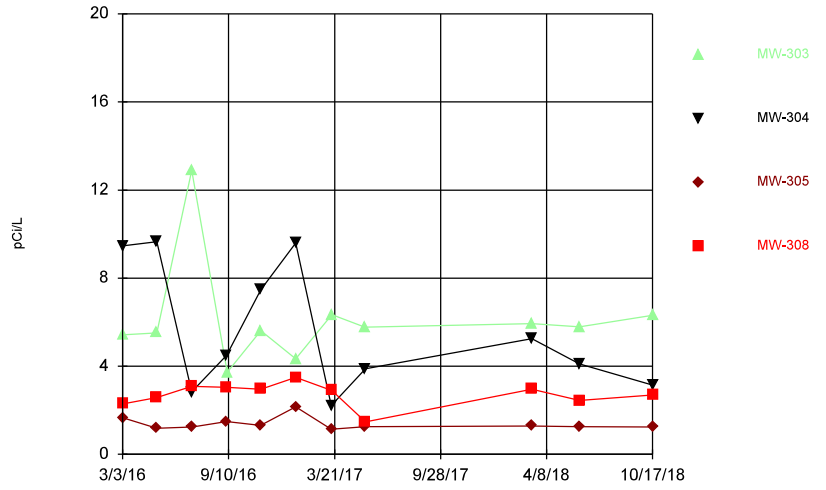
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Seri
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

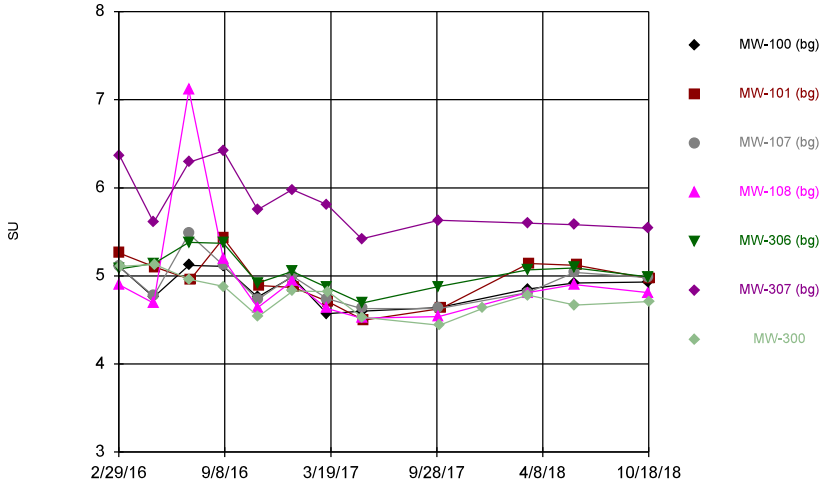
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Seri
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

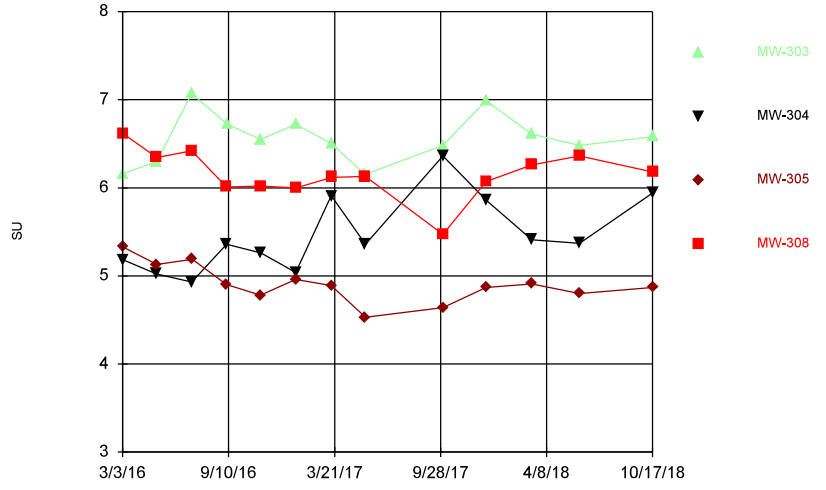
Time Series



Constituent: Field pH Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



Constituent: Field pH Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	1.27	1.09	1.42	2.4			
3/1/2016					0.647	<5	
3/3/2016							4.62
5/2/2016	0.808		1.03	1.62		<5	
5/3/2016					0.748		
5/4/2016		0.848					5.36
7/5/2016	0.947		0.961	1.01	0.591	<5	
7/7/2016							6.27
7/8/2016		1.46					
9/6/2016	1.07	1.34	1.07	1.8	0.831	0.566	
9/7/2016							5.25
11/7/2016	0.602		0.818	1.86	0.983	0.784	
11/8/2016							5.64
11/10/2016		1.23					
1/9/2017	0.865		0.934	2.25	0.767	0.541	
1/10/2017							5.39
1/11/2017		1.11					
3/13/2017	0.693		0.937	1.87	1.26	0.442	
3/14/2017		1.01					
3/15/2017							5.72
5/15/2017	0.786		0.685	1.4	0.553	0.345	
5/16/2017							4.84
5/18/2017		0.745					
3/12/2018	0.933		1.09	1.97	0.783	0.848	
3/13/2018							5.59
3/14/2018		0.614					
6/5/2018	0.713		0.927	2.17			
6/6/2018					1.08	0.78	3.96
6/10/2018		0.959					
10/16/2018	2.14		1.07	2.2			
10/17/2018					1.19	0.88	
10/18/2018		0.944					5.75

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	5.43	9.46	1.67	2.29
5/4/2016	5.52	9.66	1.18	2.58
7/6/2016	12.9	2.84		3.08
7/7/2016			1.24	
9/7/2016		4.49	1.49	3.04
9/8/2016	3.73			
11/7/2016			1.32	
11/8/2016	5.61	7.47		2.96
1/10/2017	4.33	9.6	2.16	3.5
3/15/2017		2.22	1.14	
3/16/2017	6.34			2.9
5/15/2017	5.77			
5/16/2017		3.89	1.26	1.47
3/13/2018	5.94	5.25	1.29	2.96
6/7/2018	5.79	4.1	1.25	2.45
10/17/2018	6.31	3.15	1.24	2.7

Time Series

Constituent: Field pH (SU) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	5.11	5.26	5.11	4.9			
3/1/2016					5.08	6.37	
3/3/2016							5.11
5/2/2016	4.76		4.77	4.69		5.605 (D)	
5/3/2016					5.14		
5/4/2016		5.1					5.13
7/5/2016	5.12		5.48	7.11	5.38	6.29	
7/7/2016							4.96
7/8/2016		4.96					
9/6/2016	5.11	5.43	5.12	5.19	5.37	6.42	
9/7/2016							4.88
11/7/2016	4.76		4.73	4.64	4.92	5.75	
11/8/2016							4.54
11/10/2016		4.89					
1/9/2017	4.99		5	4.94	5.05	5.98	
1/10/2017							4.83
1/11/2017		4.87					
3/13/2017	4.57		4.74	4.63	4.87	5.81	
3/14/2017		4.71					
3/15/2017							4.82
5/15/2017	4.6		4.63	4.52	4.69	5.42	
5/16/2017							4.53
5/18/2017		4.5					
10/2/2017	4.64		4.63	4.54	4.88	5.63	
10/3/2017							4.44
10/5/2017		4.63					
12/20/2017							4.63
3/12/2018	4.85		4.81	4.81	5.07	5.6	
3/13/2018							4.78
3/14/2018		5.14					
6/5/2018	4.92		5.04	4.9			
6/6/2018					5.09	5.58	4.67
6/10/2018		5.12					
10/16/2018	4.93		4.98	4.81			
10/17/2018					4.99	5.54	
10/18/2018		4.97					4.71

Time Series

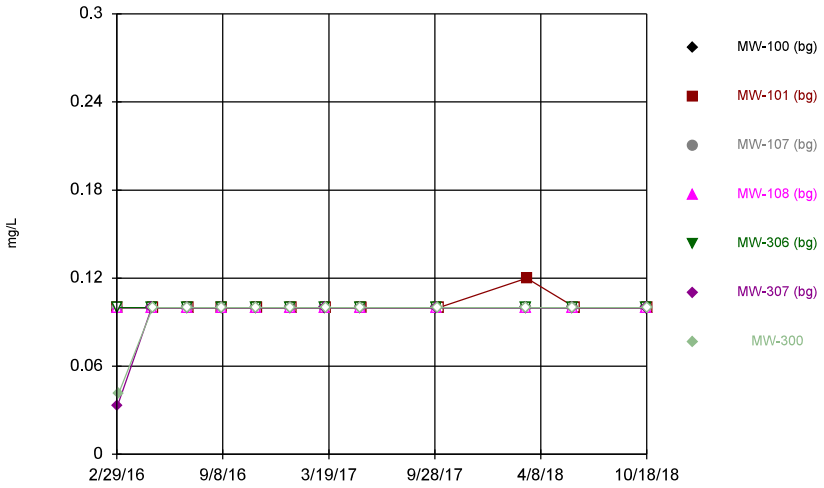
Constituent: Field pH (SU) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	6.16	5.185 (D)	5.33	6.62 (D)
5/4/2016	6.3	5.02 (D)	5.13	6.345 (D)
7/6/2016	7.07	4.93		6.42
7/7/2016			5.19	
9/7/2016		5.36	4.9	6.01
9/8/2016	6.72			
11/7/2016			4.78	
11/8/2016	6.55	5.26		6.02
1/10/2017	6.72	5.04	4.96	6
3/15/2017		5.91	4.89	
3/16/2017	6.5			6.12
5/15/2017	6.15			
5/16/2017		5.36	4.53	6.13
10/3/2017	6.48	6.36	4.64	5.47
12/20/2017	6.99 (R)	5.86	4.87	6.07 (R)
3/13/2018	6.61	5.41	4.91	6.26
6/7/2018	6.48	5.37	4.8	6.36
10/17/2018	6.58	5.94	4.87	6.18

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

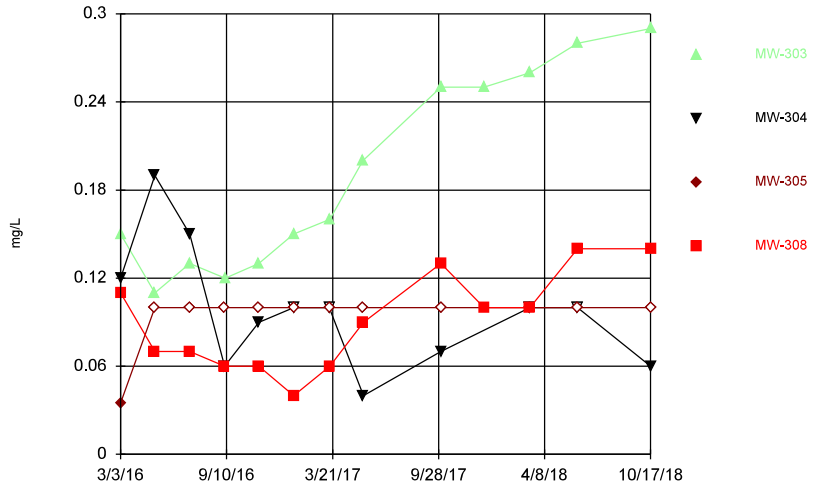
Time Series



Constituent: Fluoride Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

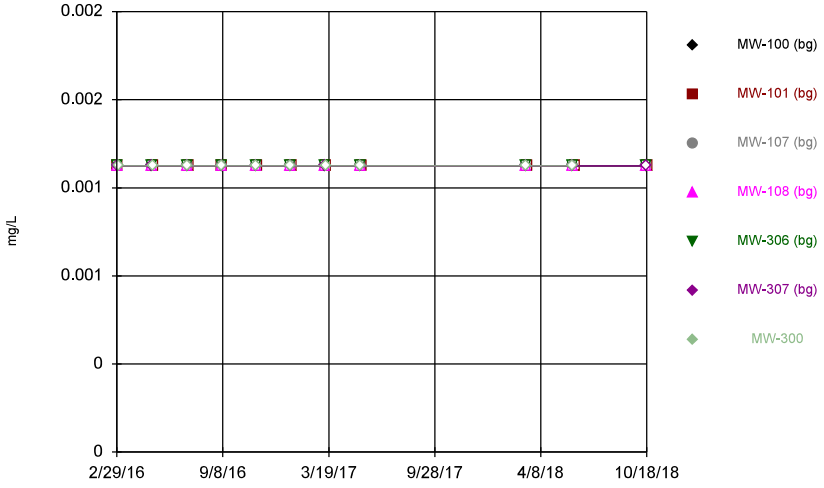
Time Series



Constituent: Fluoride Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

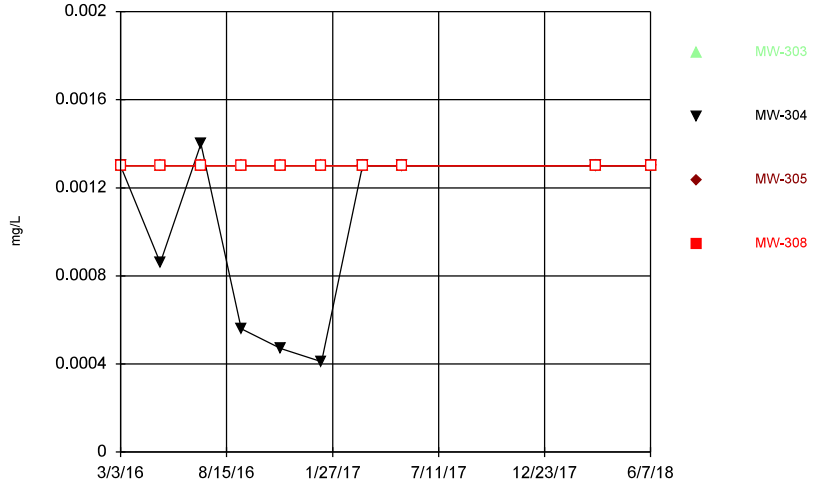
Time Series



Constituent: Lead Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.1	<0.1	<0.1	<0.1			
3/1/2016					<0.1	0.033 (J)	
3/3/2016							0.041 (J)
5/2/2016	<0.1		<0.1	<0.1		<0.1	
5/3/2016					<0.1		
5/4/2016		<0.1					<0.1
7/5/2016	<0.1		<0.1	<0.1	<0.1	<0.1	
7/7/2016							<0.1
7/8/2016		<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/7/2016							<0.1
11/7/2016	<0.1		<0.1	<0.1	<0.1	<0.1	
11/8/2016							<0.1
11/10/2016		<0.1					
1/9/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
1/10/2017							<0.1
1/11/2017		<0.1					
3/13/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
3/14/2017		<0.1					
3/15/2017							<0.1
5/15/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
5/16/2017							<0.1
5/18/2017		<0.1					
10/2/2017	<0.1		<0.1	<0.1	<0.1	<0.1	
10/3/2017							<0.1
10/5/2017		<0.1					
3/12/2018	<0.1		<0.1	<0.1	<0.1	<0.1	
3/13/2018							<0.1
3/14/2018		0.12					
6/5/2018	<0.1		<0.1	<0.1			
6/6/2018					<0.1	<0.1	<0.1
6/10/2018		<0.1					
10/16/2018	<0.1		<0.1	<0.1			
10/17/2018					<0.1	<0.1	
10/18/2018		<0.1					<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.15	0.12	0.035 (J)	0.11
5/4/2016	0.11	0.19	<0.1	0.07 (J)
7/6/2016	0.13	0.15		0.07 (J)
7/7/2016			<0.1	
9/7/2016		0.06 (J)	<0.1	0.06 (J)
9/8/2016	0.12			
11/7/2016			<0.1	
11/8/2016	0.13	0.09 (J)		0.06 (J)
1/10/2017	0.15	<0.1	<0.1	0.04 (J)
3/15/2017		<0.1	<0.1	
3/16/2017	0.16			0.06 (J)
5/15/2017	0.2			
5/16/2017		0.04 (J)	<0.1	0.09 (J)
10/3/2017	0.25	0.07 (J)	<0.1	0.13
12/20/2017	0.25			0.1
3/13/2018	0.26	<0.1	<0.1	0.1
6/7/2018	0.28	<0.1	<0.1	0.14
10/17/2018	0.29	0.06 (J)	<0.1	0.14

Time Series

Constituent: Lead (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	<0.0013	
3/3/2016							<0.0013
5/2/2016	<0.0013		<0.0013	<0.0013		<0.0013	
5/3/2016					<0.0013		
5/4/2016		<0.0013					<0.0013
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
7/7/2016							<0.0013
7/8/2016		<0.0013					
9/6/2016	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	
9/7/2016							<0.0013
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/8/2016							<0.0013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
1/10/2017							<0.0013
1/11/2017		<0.0013					
3/13/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/15/2017							<0.0013
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							<0.0013
5/18/2017		<0.0013					
3/12/2018	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
3/13/2018							<0.0013
3/14/2018		<0.0013					
6/5/2018	<0.0013		<0.0013	<0.0013			
6/6/2018					<0.0013	<0.0013	<0.0013
6/10/2018		<0.0013					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					

Time Series

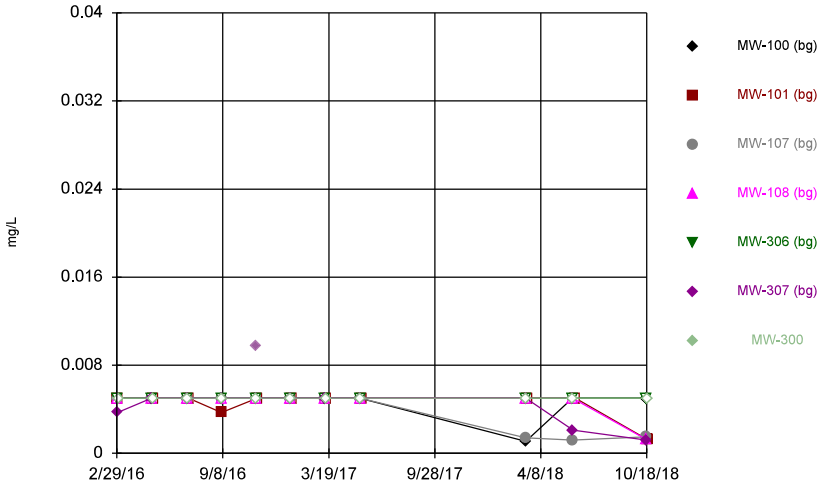
Constituent: Lead (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0013	<0.0013	<0.0013	<0.0013
5/4/2016	<0.0013	0.00086 (J)	<0.0013	<0.0013
7/6/2016	<0.0013	0.0014		<0.0013
7/7/2016			<0.0013	
9/7/2016		0.00056 (J)	<0.0013	<0.0013
9/8/2016	<0.0013			
11/7/2016			<0.0013	
11/8/2016	<0.0013	0.00047 (J)		<0.0013
1/10/2017	<0.0013	0.00041 (J)	<0.0013	<0.0013
3/15/2017		<0.0013	<0.0013	
3/16/2017	<0.0013			<0.0013
5/15/2017	<0.0013			
5/16/2017		<0.0013	<0.0013	<0.0013
3/13/2018	<0.0013	<0.0013	<0.0013	<0.0013
6/7/2018	<0.0013	<0.0013	<0.0013	<0.0013

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

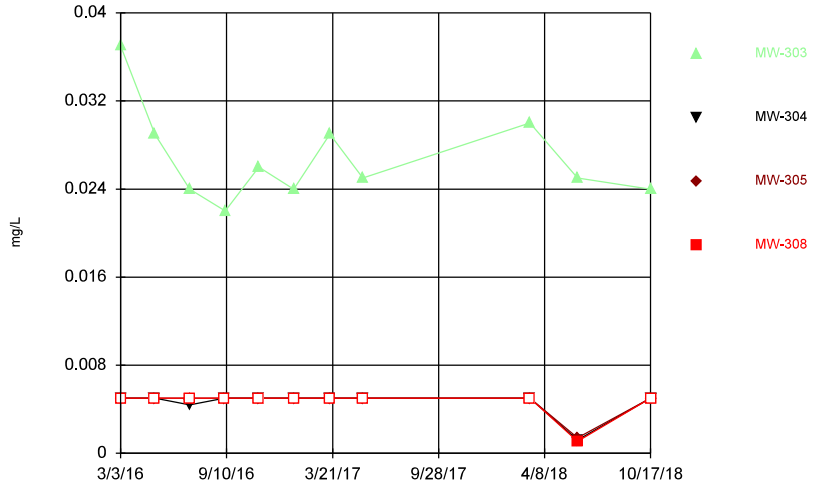
Time Series



Constituent: Lithium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

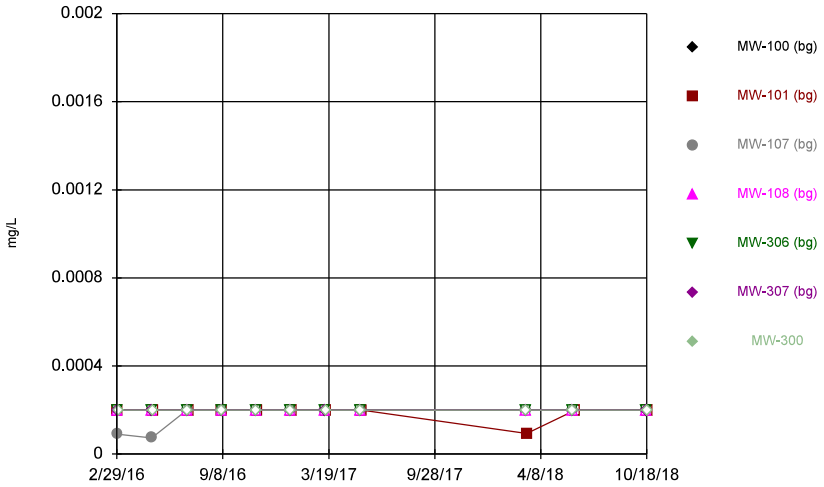
Time Series



Constituent: Lithium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

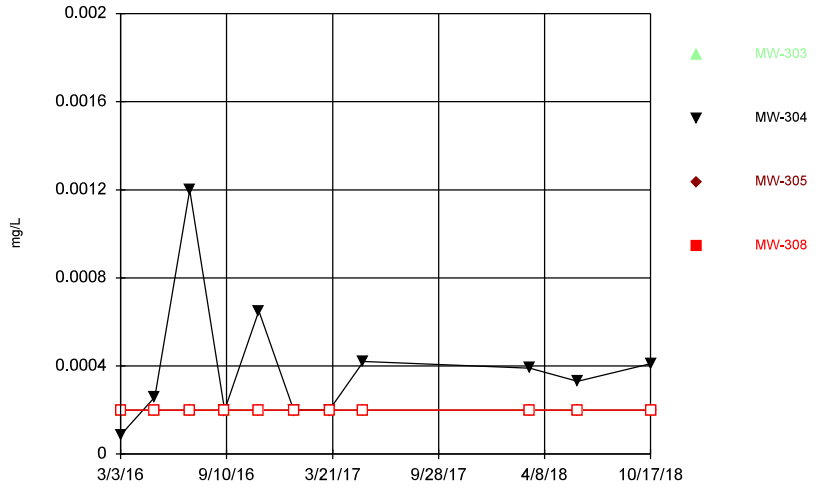
Time Series



Constituent: Mercury Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.005	<0.005	<0.005	<0.005			
3/1/2016					<0.005	0.0037	
3/3/2016							<0.005
5/2/2016	<0.005		<0.005	<0.005		<0.005	
5/3/2016					<0.005		
5/4/2016		<0.005					<0.005
7/5/2016	<0.005		<0.005	<0.005	<0.005	<0.005	
7/7/2016							<0.005
7/8/2016		<0.005					
9/6/2016	<0.005	0.0037 (J)	<0.005	<0.005	<0.005	<0.005	
9/7/2016							<0.005
11/7/2016	<0.005		<0.005	<0.005	<0.005	0.0097 (o)	
11/8/2016							<0.005
11/10/2016		<0.005					
1/9/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
1/10/2017							<0.005
1/11/2017		<0.005					
3/13/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
3/14/2017		<0.005					
3/15/2017							<0.005
5/15/2017	<0.005		<0.005	<0.005	<0.005	<0.005	
5/16/2017							<0.005
5/18/2017		<0.005					
3/12/2018	0.0011 (J)		0.0014 (J)	<0.005	<0.005	<0.005	
3/13/2018							<0.005
3/14/2018		<0.005					
6/5/2018	<0.005		0.0012 (J)	<0.005			
6/6/2018					<0.005	0.0021 (J)	<0.005
6/10/2018		<0.005					
10/16/2018	<0.005		0.0015 (J)	0.0013 (J)			
10/17/2018					<0.005	0.0012 (J)	
10/18/2018		0.0013 (J)					<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.037	<0.005	<0.005	<0.005
5/4/2016	0.029	<0.005	<0.005	<0.005
7/6/2016	0.024	0.0044 (J)		<0.005
7/7/2016			<0.005	
9/7/2016		<0.005	<0.005	<0.005
9/8/2016	0.022			
11/7/2016			<0.005	
11/8/2016	0.026	<0.005		<0.005
1/10/2017	0.024	<0.005	<0.005	<0.005
3/15/2017		<0.005	<0.005	
3/16/2017	0.029			<0.005
5/15/2017	0.025			
5/16/2017		<0.005	<0.005	<0.005
3/13/2018	0.03	<0.005	<0.005	<0.005
6/7/2018	0.025	0.0012 (J)	0.0014 (J)	0.0011 (J)
10/17/2018	0.024	<0.005	<0.005	<0.005

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0002	<0.0002	9.1E-05 (J)	<0.0002			
3/1/2016					<0.0002	<0.0002	
3/3/2016							<0.0002
5/2/2016	<0.0002		7.4E-05 (J)	<0.0002		<0.0002	
5/3/2016					<0.0002		
5/4/2016		<0.0002					<0.0002
7/5/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
7/7/2016							<0.0002
7/8/2016		<0.0002 (*)					
9/6/2016	<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002	<0.0002 (*)	<0.0002 (*)	
9/7/2016							<0.0002
11/7/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
11/8/2016							<0.0002
11/10/2016		<0.0002					
1/9/2017	<0.0002 (*)		<0.0002 (*)	<0.0002 (*)	<0.0002 (*)	<0.0002 (*)	
1/10/2017							<0.0002
1/11/2017		<0.0002					
3/13/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/14/2017		<0.0002 (*)					
3/15/2017							<0.0002
5/15/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
5/16/2017							<0.0002
5/18/2017		<0.0002					
3/12/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
3/13/2018							<0.0002
3/14/2018		9.3E-05 (J)					
6/5/2018	<0.0002		<0.0002	<0.0002			
6/6/2018					<0.0002	<0.0002	<0.0002
6/10/2018		<0.0002					
10/16/2018	<0.0002		<0.0002	<0.0002			
10/17/2018					<0.0002	<0.0002	
10/18/2018		<0.0002					<0.0002

Time Series

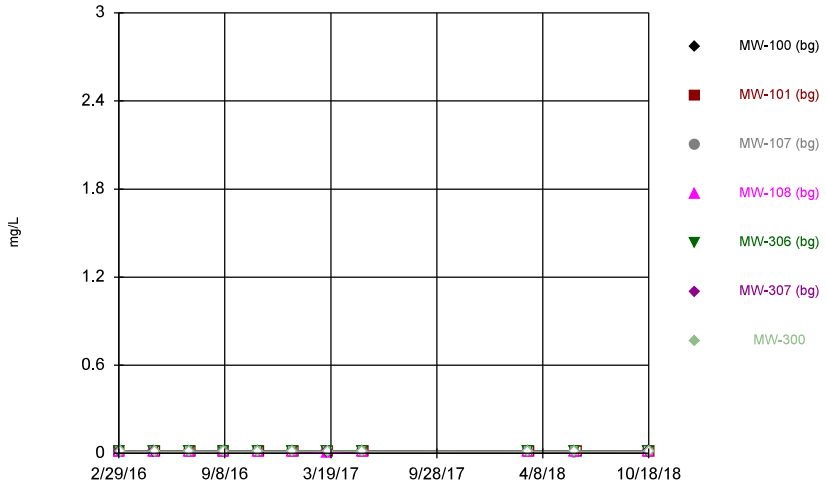
Constituent: Mercury (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	<0.0002	8.6E-05 (J)	<0.0002	<0.0002
5/4/2016	<0.0002	0.00026	<0.0002	<0.0002
7/6/2016	<0.0002	0.0012		<0.0002 (*)
7/7/2016			<0.0002	
9/7/2016		<0.0002	<0.0002	<0.0002
9/8/2016	<0.0002			
11/7/2016			<0.0002	
11/8/2016	<0.0002	0.00065		<0.0002
1/10/2017	<0.0002	<0.0002	<0.0002	<0.0002
3/15/2017		<0.0002	<0.0002	
3/16/2017	<0.0002			<0.0002
5/15/2017	<0.0002			
5/16/2017		0.00042	<0.0002	<0.0002
3/13/2018	<0.0002	0.00039	<0.0002	<0.0002
6/7/2018	<0.0002	0.00033	<0.0002	<0.0002
10/17/2018	<0.0002	0.00041	<0.0002	<0.0002

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

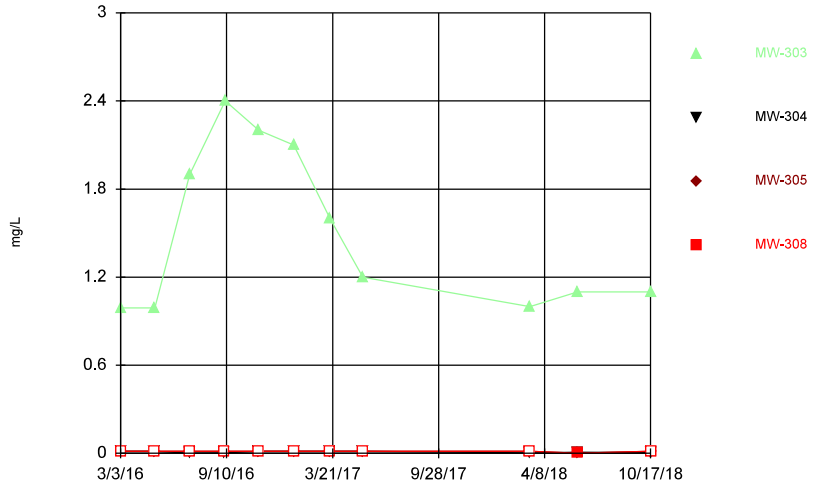
Time Series



Constituent: Molybdenum Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

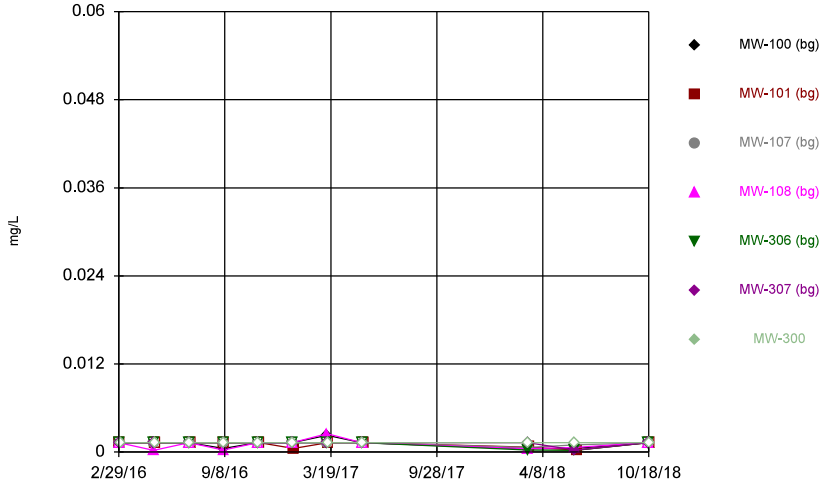
Time Series



Constituent: Molybdenum Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

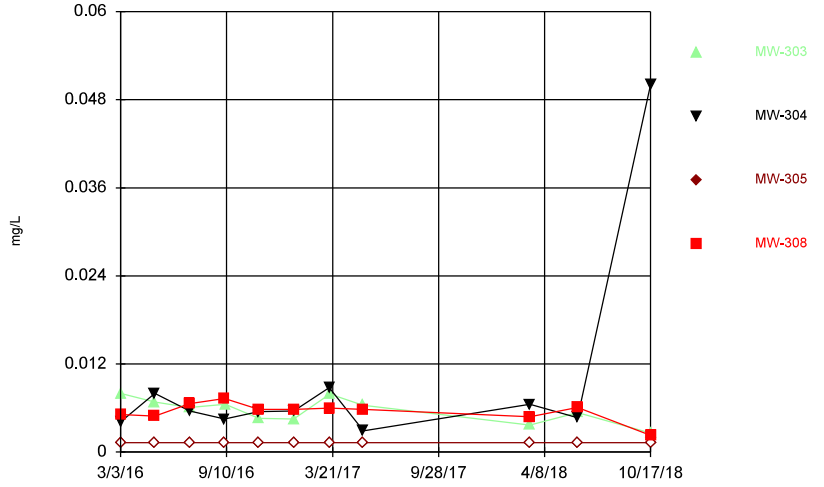
Time Series



Constituent: Selenium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.015	<0.015	<0.015	<0.015			
3/1/2016					<0.015	<0.015	
3/3/2016							<0.015
5/2/2016	<0.015		<0.015	<0.015		<0.015	
5/3/2016					<0.015		
5/4/2016		<0.015					<0.015
7/5/2016	<0.015		<0.015	<0.015	<0.015	<0.015	
7/7/2016							<0.015
7/8/2016		<0.015					
9/6/2016	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
9/7/2016							<0.015
11/7/2016	<0.015		<0.015	<0.015	<0.015	<0.015	
11/8/2016							<0.015
11/10/2016		<0.015					
1/9/2017	<0.015		<0.015	<0.015	<0.015	<0.015	
1/10/2017							<0.015
1/11/2017		<0.015					
3/13/2017	0.0042 (J)		<0.015	0.0022 (J)	<0.015	<0.015	
3/14/2017		<0.015					
3/15/2017							<0.015
5/15/2017	<0.015		<0.015	<0.015	<0.015	<0.015	
5/16/2017							<0.015
5/18/2017		<0.015					
3/12/2018	<0.015		<0.015	<0.015	<0.015	<0.015	
3/13/2018							<0.015
3/14/2018		<0.015					
6/5/2018	<0.015		0.00088 (J)	<0.015			
6/6/2018					<0.015	<0.015	<0.015
6/10/2018		<0.015					
10/16/2018	<0.015		<0.015	<0.015			
10/17/2018					<0.015	<0.015	
10/18/2018		<0.015					<0.015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.99	<0.015	<0.015	<0.015
5/4/2016	0.99	<0.015	<0.015	<0.015
7/6/2016	1.9	0.0018 (J)		<0.015
7/7/2016			<0.015	
9/7/2016		0.0029 (J)	<0.015	<0.015
9/8/2016	2.4			
11/7/2016			<0.015	
11/8/2016	2.2	<0.015		<0.015
1/10/2017	2.1	<0.015 (*)	<0.015	<0.015
3/15/2017		<0.015	<0.015	
3/16/2017	1.6			<0.015
5/15/2017	1.2			
5/16/2017		<0.015 (*)	<0.015 (*)	<0.015
3/13/2018	1	0.0033 (J)	<0.015	<0.015
6/7/2018	1.1	0.0065 (J)	0.0016 (J)	0.00098 (J)
10/17/2018	1.1	0.0043 (J)	<0.015	<0.015

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0013	<0.0013	<0.0013	<0.0013			
3/1/2016					<0.0013	<0.0013	
3/3/2016							<0.0013
5/2/2016	<0.0013		<0.0013	0.00025 (J)		<0.0013	
5/3/2016					<0.0013		
5/4/2016		<0.0013					<0.0013
7/5/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
7/7/2016							<0.0013
7/8/2016		<0.0013					
9/6/2016	0.00049 (J)	<0.0013	<0.0013	0.00027 (J)	<0.0013	<0.0013	
9/7/2016							<0.0013
11/7/2016	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
11/8/2016							<0.0013
11/10/2016		<0.0013					
1/9/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
1/10/2017							<0.0013
1/11/2017		0.00049 (J)					
3/13/2017	0.0023		<0.0013	0.0025	<0.0013	<0.0013	
3/14/2017		<0.0013					
3/15/2017							<0.0013
5/15/2017	<0.0013		<0.0013	<0.0013	<0.0013	<0.0013	
5/16/2017							<0.0013
5/18/2017		<0.0013					
3/12/2018	0.00046 (J)		0.00064 (J)	0.00047 (J)	0.00026 (J)	<0.0013	
3/13/2018							<0.0013
3/14/2018		0.00067 (J)					
6/5/2018	0.00049 (J)		0.00098 (J)	0.00065 (J)			
6/6/2018					0.00025 (J)	0.00026 (J)	<0.0013
6/10/2018		0.00028 (J)					
10/16/2018	<0.0013		<0.0013	<0.0013			
10/17/2018					<0.0013	<0.0013	
10/18/2018		<0.0013					<0.0013

Time Series

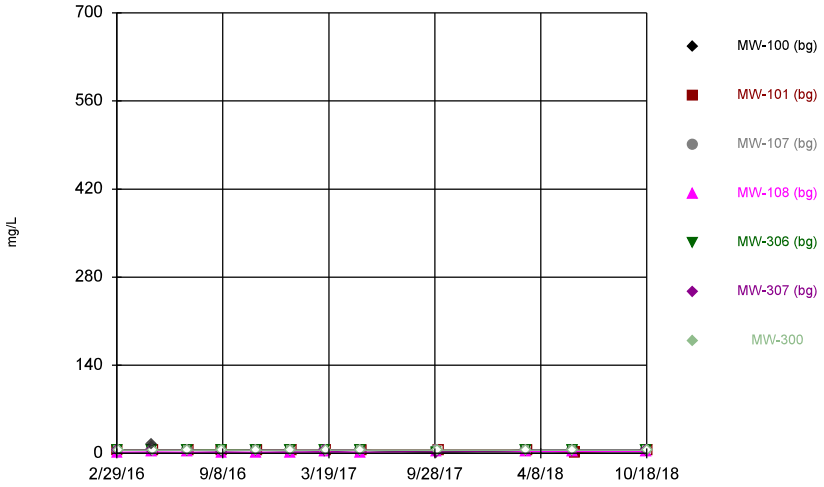
Constituent: Selenium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.008	0.0041 (J)	<0.0013	0.0051 (J)
5/4/2016	0.0068	0.008	<0.0013	0.0049
7/6/2016	0.0061	0.0056		0.0066
7/7/2016			<0.0013	
9/7/2016		0.0045	<0.0013	0.0073
9/8/2016	0.0065			
11/7/2016			<0.0013	
11/8/2016	0.0046	0.0055		0.0058
1/10/2017	0.0045	0.0056	<0.0013	0.0058
3/15/2017		0.0088	<0.0013	
3/16/2017	0.0079			0.006
5/15/2017	0.0064			
5/16/2017		0.0029	<0.0013	0.0058
3/13/2018	0.0037	0.0065	<0.0013	0.0048
6/7/2018	0.0054	0.0047	<0.0013	0.0061
10/17/2018	0.0026	0.05	<0.0013	0.0023

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

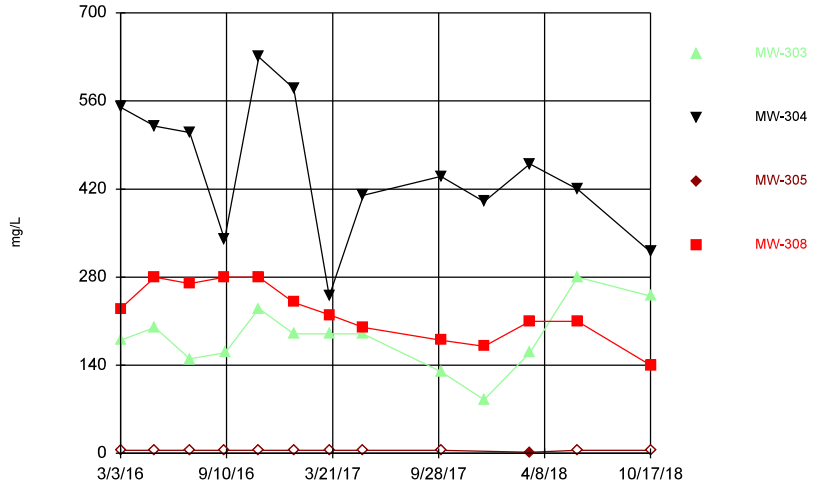
Time Series



Constituent: Sulfate Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

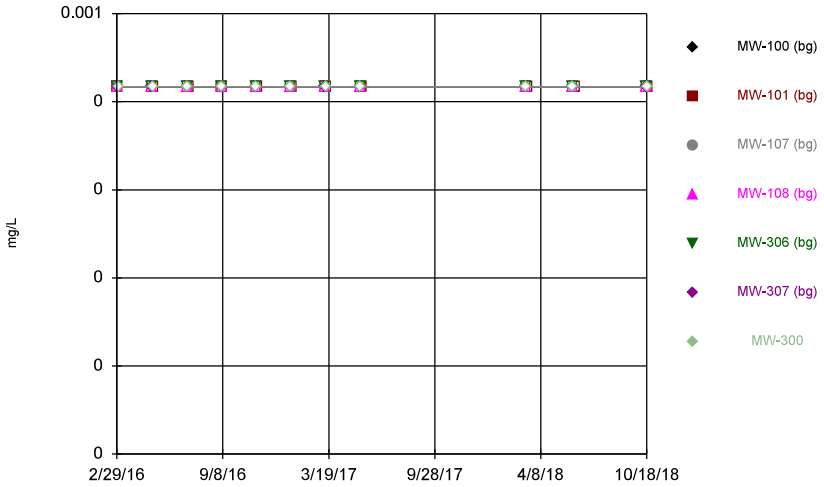
Time Series



Constituent: Sulfate Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

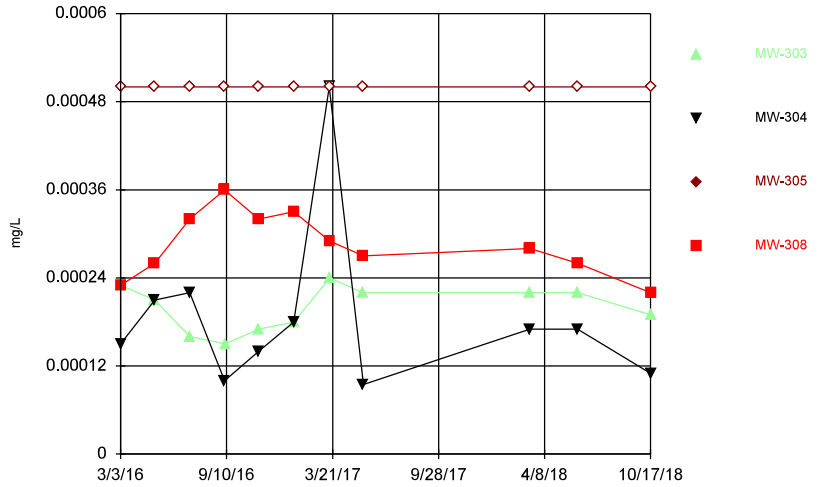
Time Series



Constituent: Thallium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<5	<5	<5	1.6 (J)			
3/1/2016					<5	<5	
3/3/2016							<5
5/2/2016	15 (o)		<5	2.1 (J)		<5	
5/3/2016					<5		
5/4/2016		<5					<5
7/5/2016	<5		<5	2 (J)	<5	<5	
7/7/2016							<5
7/8/2016		<5					
9/6/2016	<5	<5	<5	1.8 (J)	<5	3.7 (J)	
9/7/2016							<5
11/7/2016	<5		<5	1.7 (J)	<5	<5	
11/8/2016							<5
11/10/2016		<5					
1/9/2017	<5		2.6 (J)	1.5 (J)	<5	<5	
1/10/2017							<5
1/11/2017		<5					
3/13/2017	2.5 (J)		<5	2.2 (J)	<5	<5	
3/14/2017		<5					
3/15/2017							<5 (*)
5/15/2017	<5		<5	1.9 (J)	<5	<5	
5/16/2017							<5
5/18/2017		<5 (X)					
10/2/2017	<5		<5	3.4 (J)	1.5 (J)	1.7 (J)	
10/3/2017							<5
10/5/2017		<5					
3/12/2018	<5		<5	2.6 (J)	<5	<5	
3/13/2018							<5
3/14/2018		<5					
6/5/2018	<5		<5	2.6 (J)			
6/6/2018					<5	<5	<5
6/10/2018		1.5 (J)					
10/16/2018	<5		<5	2.8 (J)			
10/17/2018					<5	<5	
10/18/2018		<5					<5

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	180	550	<5	230
5/4/2016	200	520	<5	280
7/6/2016	150	510		270
7/7/2016			<5	
9/7/2016		340	<5	280
9/8/2016	160			
11/7/2016			<5	
11/8/2016	230	630		280
1/10/2017	190	580	<5	240
3/15/2017		250	<5 (*)	
3/16/2017	190			220
5/15/2017	190			
5/16/2017		410	<5	200
10/3/2017	130	440	<5	180
12/20/2017	85	400		170
3/13/2018	160	460	1.5 (J)	210
6/7/2018	280	420	<5	210
10/17/2018	250	320	<5	140

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	<0.0005	<0.0005	<0.0005	<0.0005			
3/1/2016					<0.0005	<0.0005	
3/3/2016							<0.0005
5/2/2016	<0.0005		<0.0005	<0.0005		<0.0005	
5/3/2016					<0.0005		
5/4/2016		<0.0005					<0.0005
7/5/2016	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
7/7/2016							<0.0005
7/8/2016		<0.0005					
9/6/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/7/2016							<0.0005
11/7/2016	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
11/8/2016							<0.0005
11/10/2016		<0.0005					
1/9/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
1/10/2017							<0.0005
1/11/2017		<0.0005					
3/13/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
3/14/2017		<0.0005					
3/15/2017							<0.0005
5/15/2017	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
5/16/2017							<0.0005
5/18/2017		<0.0005					
3/12/2018	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
3/13/2018							<0.0005
3/14/2018		<0.0005					
6/5/2018	<0.0005		<0.0005	<0.0005			
6/6/2018					<0.0005	<0.0005	<0.0005
6/10/2018		<0.0005					
10/16/2018	<0.0005		<0.0005	<0.0005			
10/17/2018					<0.0005	<0.0005	
10/18/2018		<0.0005					<0.0005

Time Series

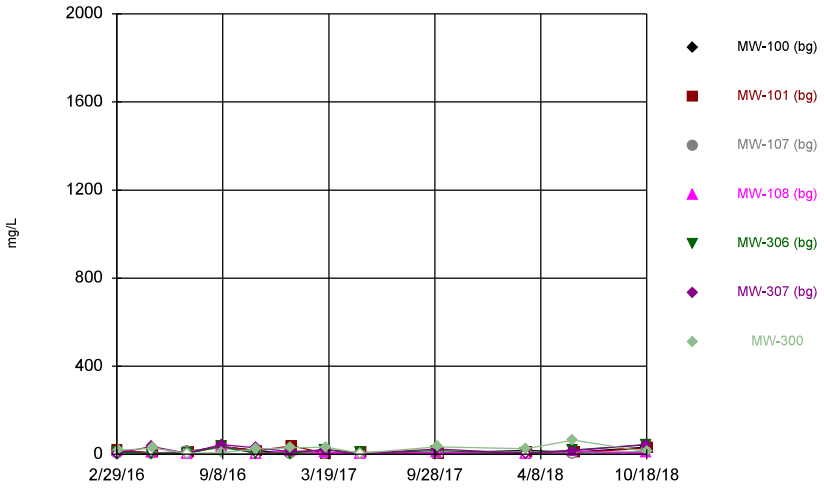
Constituent: Thallium (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	0.00023 (J)	0.00015 (J)	<0.0005	0.00023 (J)
5/4/2016	0.00021 (J)	0.00021 (J)	<0.0005	0.00026 (J)
7/6/2016	0.00016 (J)	0.00022 (J)		0.00032 (J)
7/7/2016			<0.0005	
9/7/2016		0.0001 (J)	<0.0005	0.00036 (J)
9/8/2016	0.00015 (J)			
11/7/2016			<0.0005	
11/8/2016	0.00017 (J)	0.00014 (J)		0.00032 (J)
1/10/2017	0.00018 (J)	0.00018 (J)	<0.0005	0.00033 (J)
3/15/2017		<0.0005	<0.0005	
3/16/2017	0.00024 (J)			0.00029 (J)
5/15/2017	0.00022 (J)			
5/16/2017		9.5E-05 (J)	<0.0005	0.00027 (J)
3/13/2018	0.00022 (J)	0.00017 (J)	<0.0005	0.00028 (J)
6/7/2018	0.00022 (J)	0.00017 (J)	<0.0005	0.00026 (J)
10/17/2018	0.00019 (J)	0.00011 (J)	<0.0005	0.00022 (J)

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

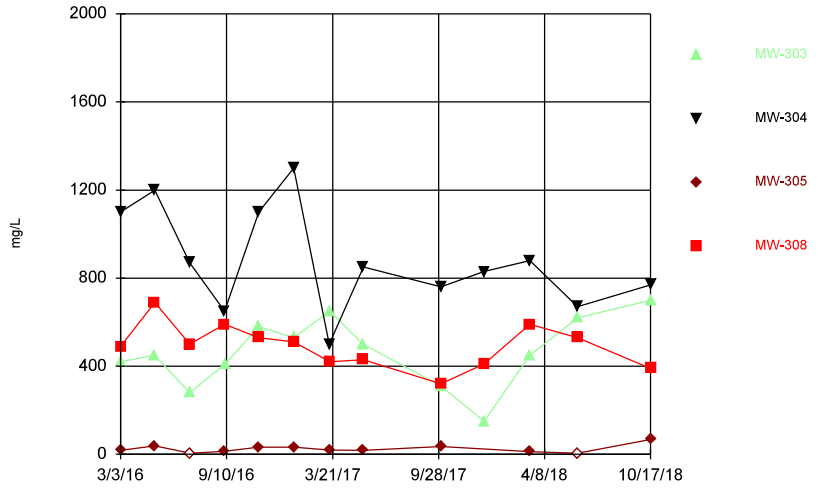
Time Series



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 11:26 AM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-101 (bg)	MW-107 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-300
2/29/2016	20	20	<5	12			
3/1/2016					10	<5	
3/3/2016							18
5/2/2016	<5		<5	6		36	
5/3/2016					<5		
5/4/2016		6					28
7/5/2016	12		14	<5	<5	<5	
7/7/2016							<5
7/8/2016		6					
9/6/2016	36	36	30	38	36	44	
9/7/2016							8
11/7/2016	18		8	<5	<5	30	
11/8/2016							24
11/10/2016		16					
1/9/2017	4 (J)		<5	14	<5	12	
1/10/2017							30
1/11/2017		38					
3/13/2017	6		<5	8	22	20	
3/14/2017		<5					
3/15/2017							32
5/15/2017	<5		<5	<5	6	4 (J)	
5/16/2017							<5
5/18/2017		10					
10/2/2017	<5		<5	6	16	24	
10/3/2017							34
10/5/2017		<5					
3/12/2018	18		14	<5	<5	<5	
3/13/2018							26
3/14/2018		8					
6/5/2018	10		<5	14			
6/6/2018					20	16	64
6/10/2018		8					
10/16/2018	32		12	6			
10/17/2018					44	44	
10/18/2018		28					12

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/11/2019 11:28 AM View: Descriptive - 300 Series

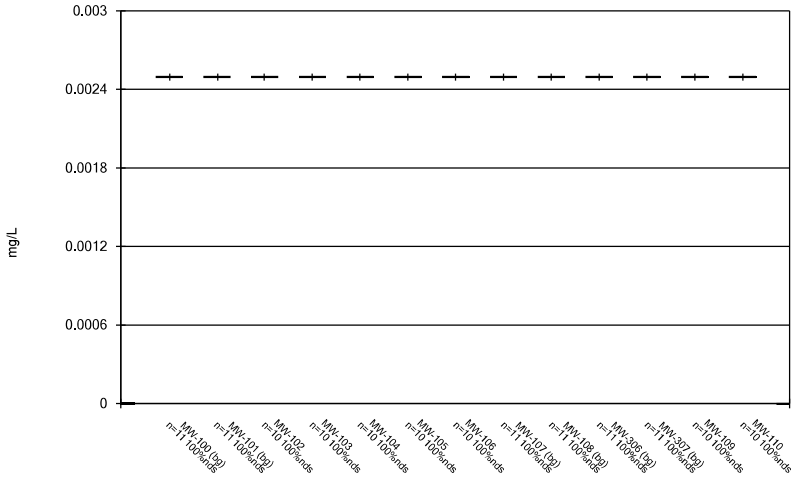
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-303	MW-304	MW-305	MW-308
3/3/2016	420	1100	18	490
5/4/2016	450	1200	38	690
7/6/2016	280	870		500
7/7/2016			<5	
9/7/2016		650	14	590
9/8/2016	410			
11/7/2016			32	
11/8/2016	580	1100		530
1/10/2017	530	1300	32	510
3/15/2017		500	20	
3/16/2017	650			420
5/15/2017	500			
5/16/2017		850	18	430
10/3/2017	310	760	36	320
12/20/2017	150	830		410
3/13/2018	450	880	12	590
6/7/2018	620	670	<5	530
10/17/2018	700	770	68	390

Box Plots - 100, 200 & 300 Series

100 Series

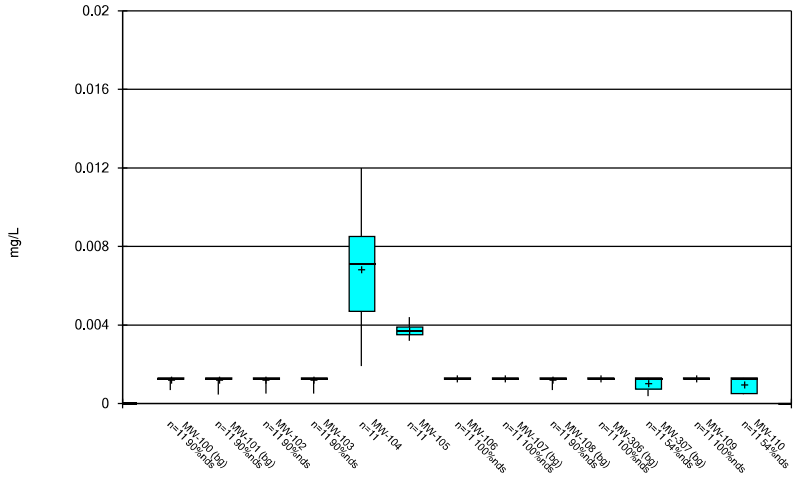
Box & Whiskers Plot



Constituent: Antimony Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

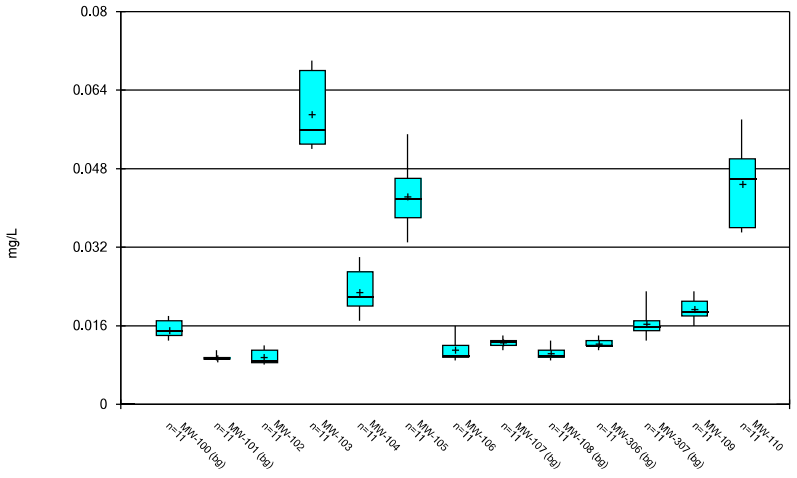
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

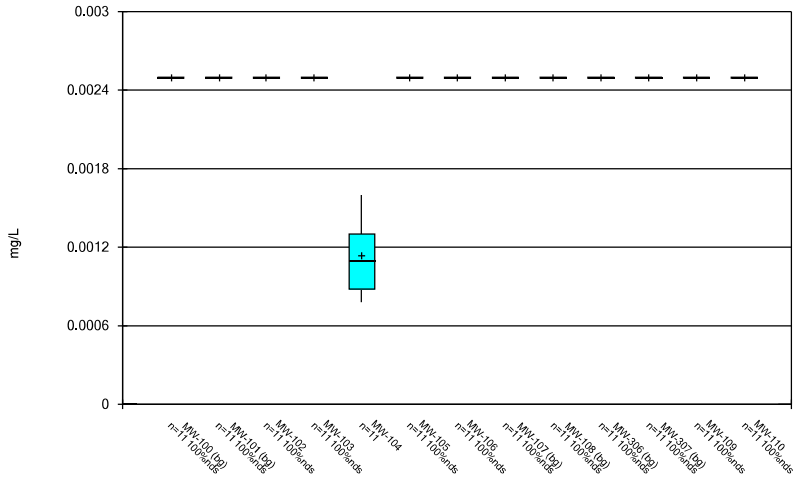
Box & Whiskers Plot



Constituent: Barium Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

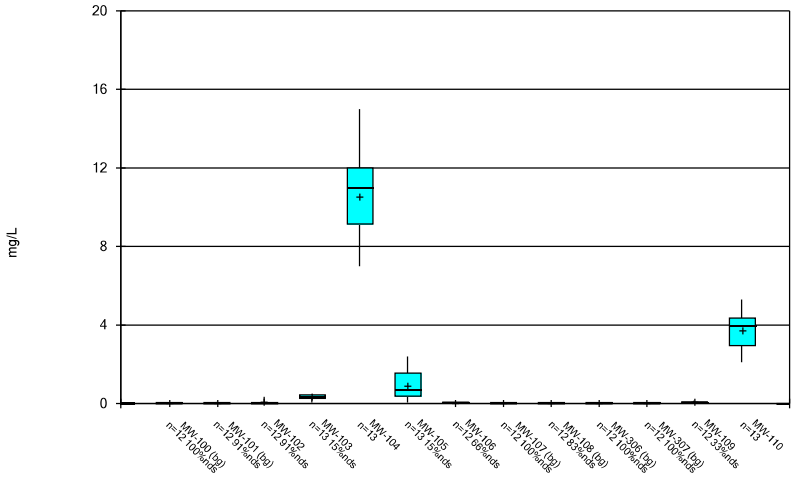
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

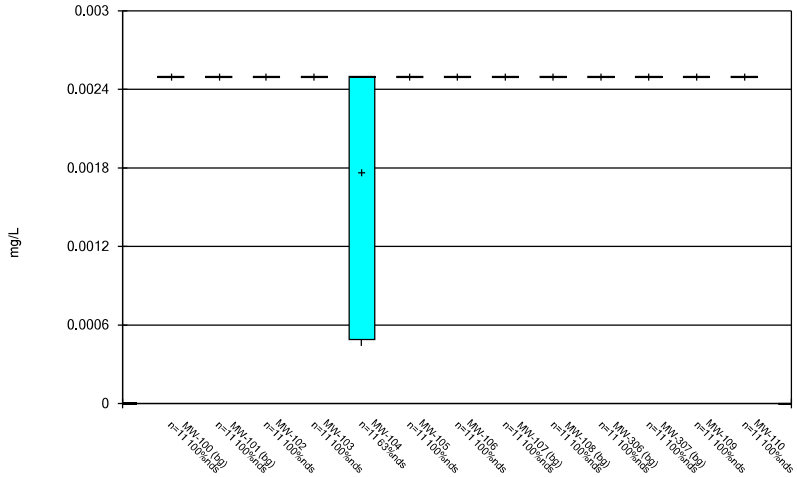
Box & Whiskers Plot



Constituent: Boron Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

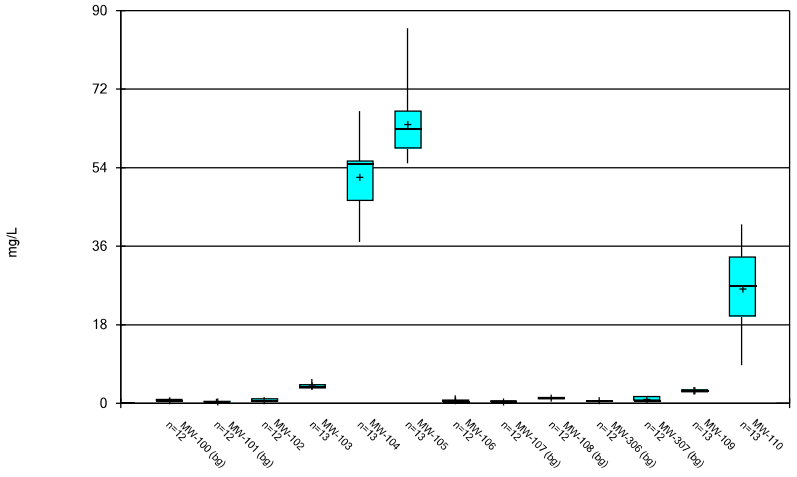
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

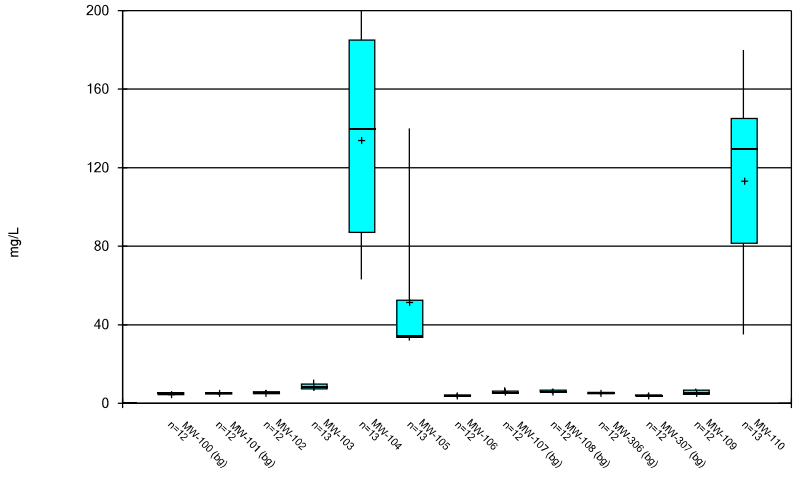
Box & Whiskers Plot



Constituent: Calcium Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

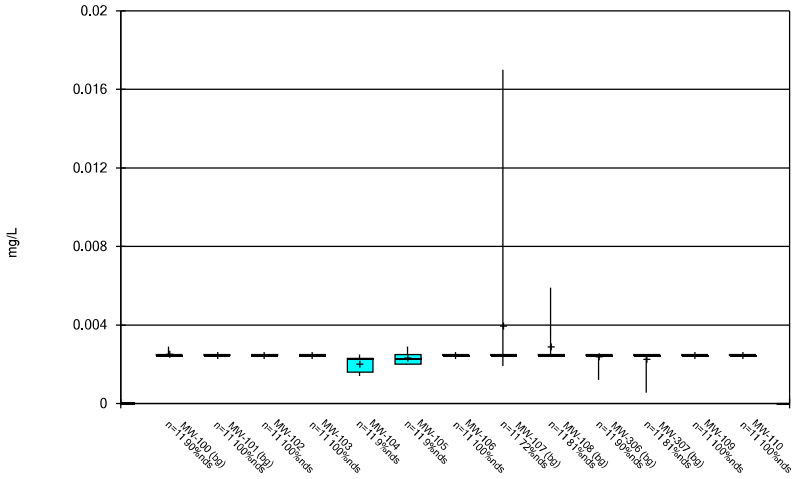
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

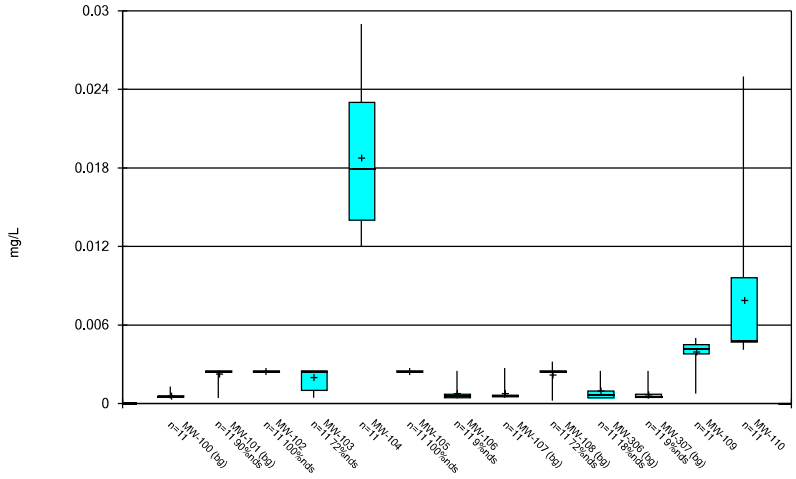
Box & Whiskers Plot



Constituent: Chromium Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

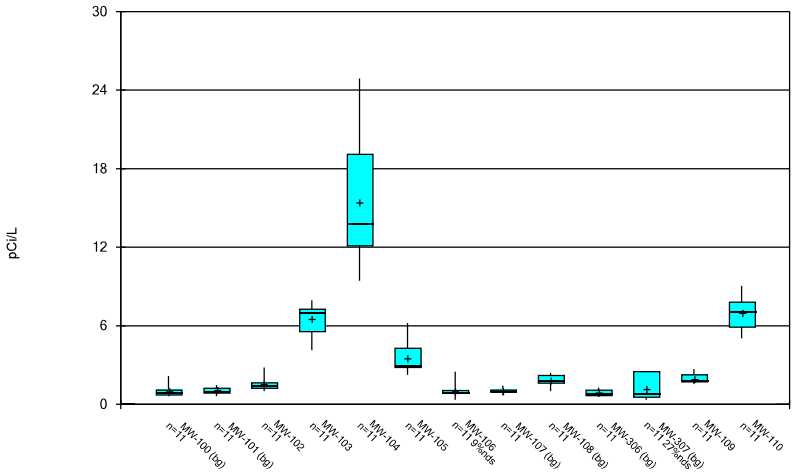
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

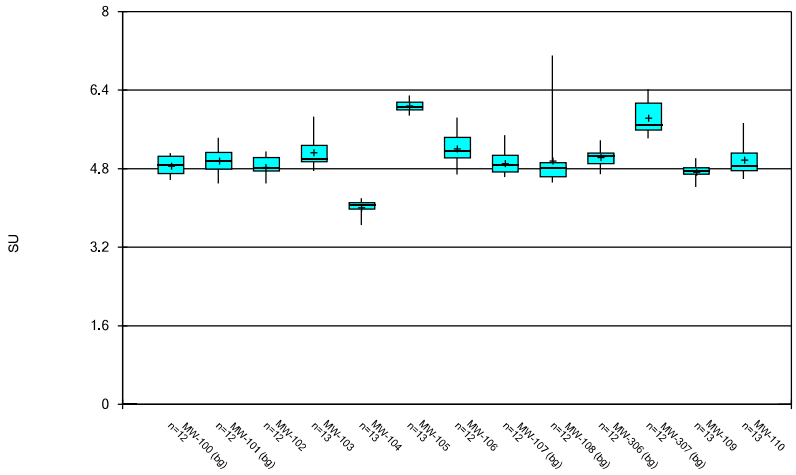
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

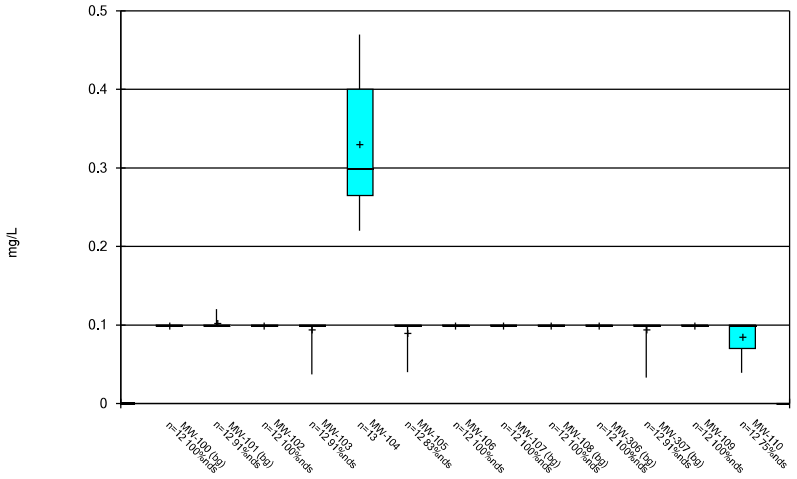
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Field pH Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

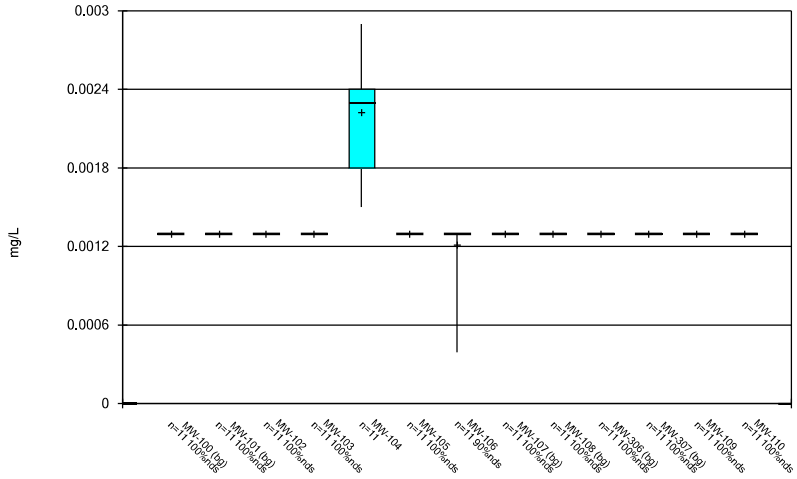
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

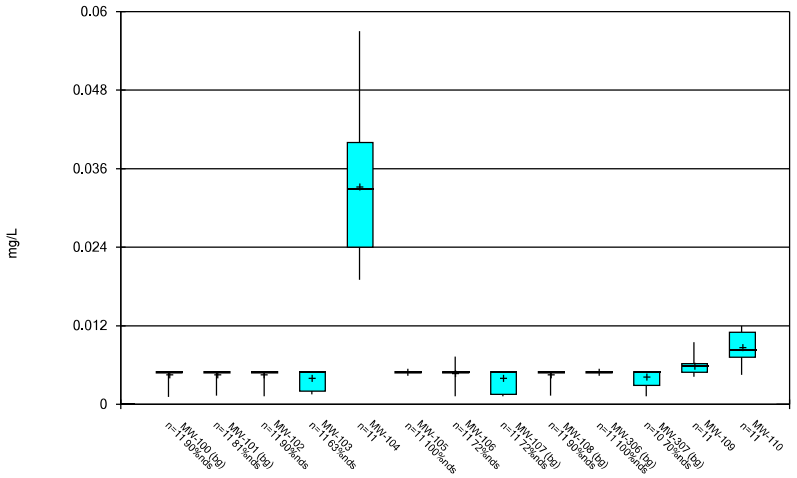
Box & Whiskers Plot



Constituent: Lead Analysis Run 2/6/2019 4:15 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

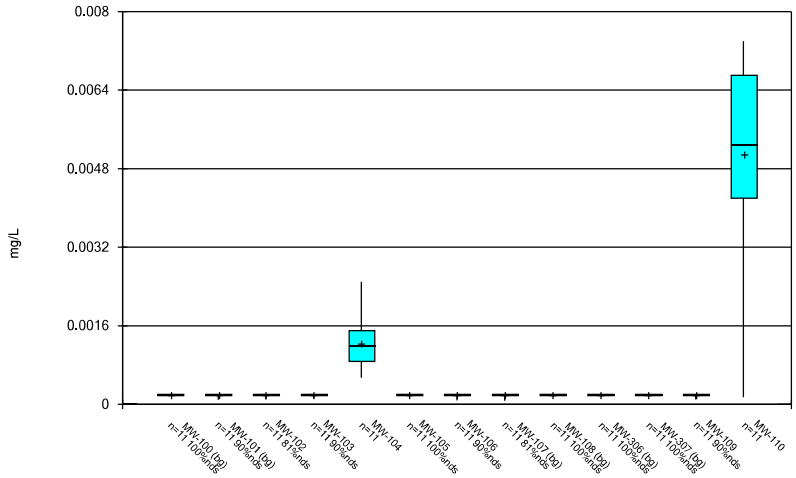
Box & Whiskers Plot



Constituent: Lithium Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

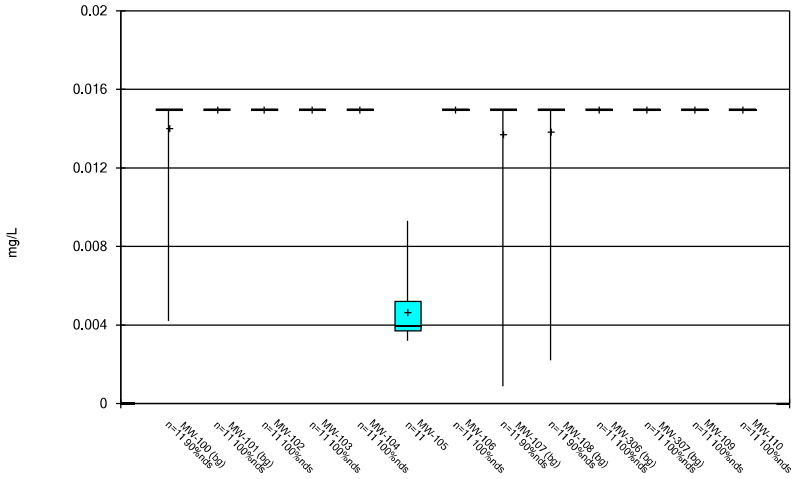
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Mercury Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

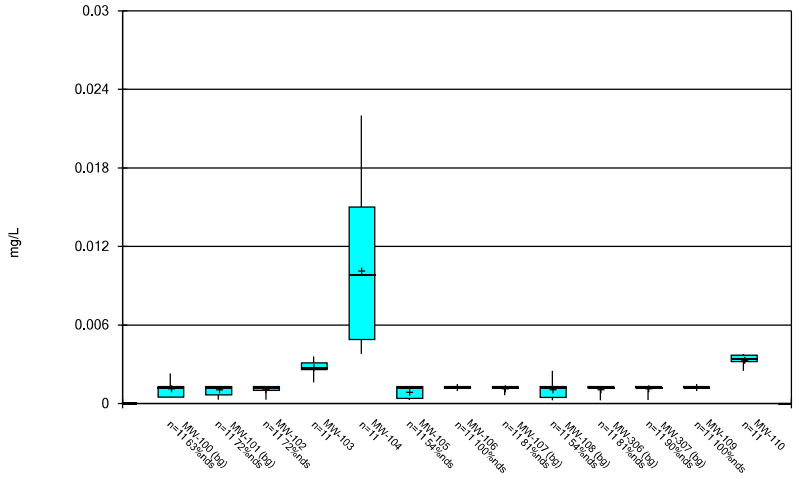
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

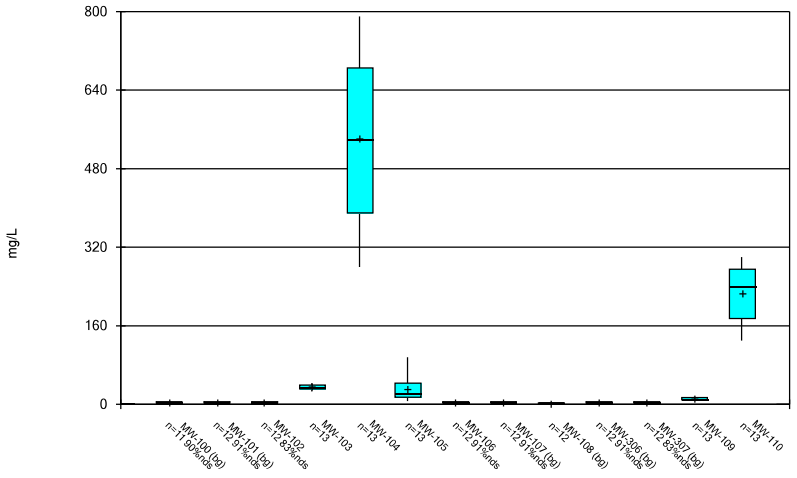
Box & Whiskers Plot



Constituent: Selenium Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

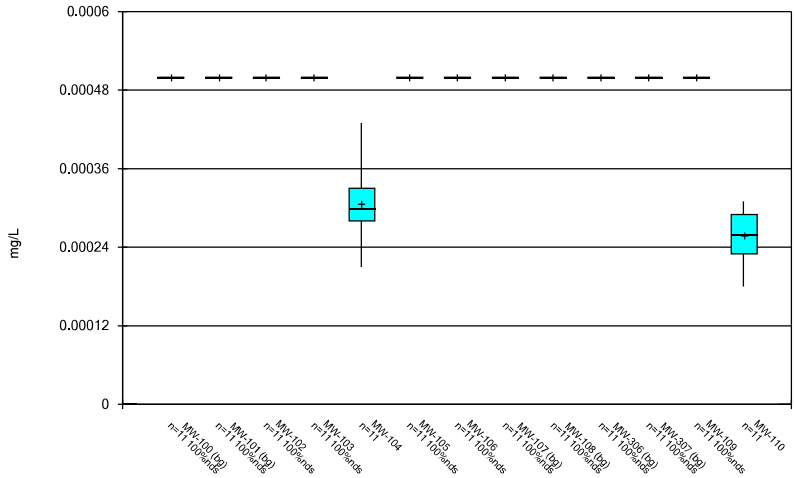
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

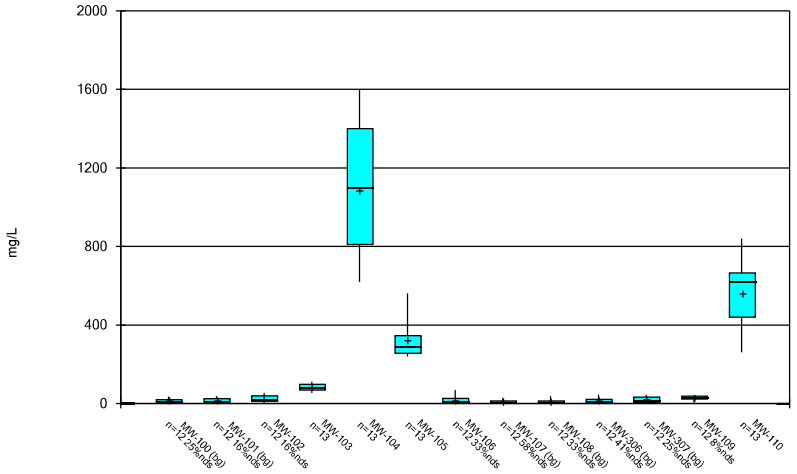
Box & Whiskers Plot



Constituent: Thallium Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

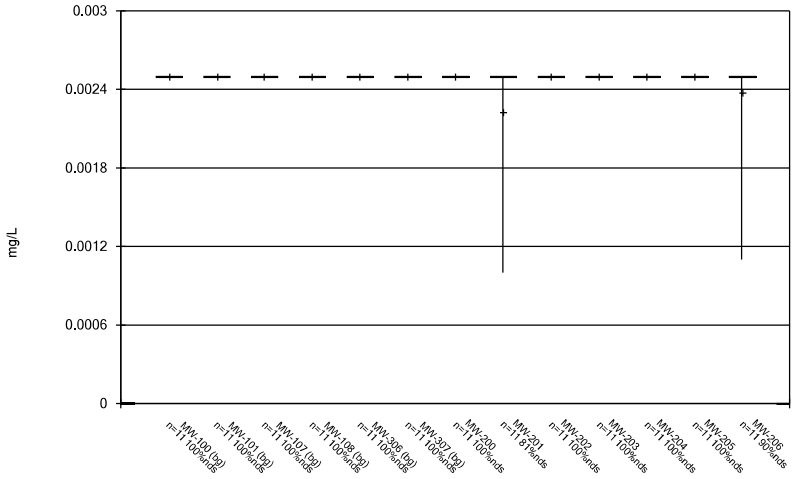


Constituent: Total Dissolved Solids Analysis Run 2/6/2019 4:16 PM View: Descriptive - 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

200 Series

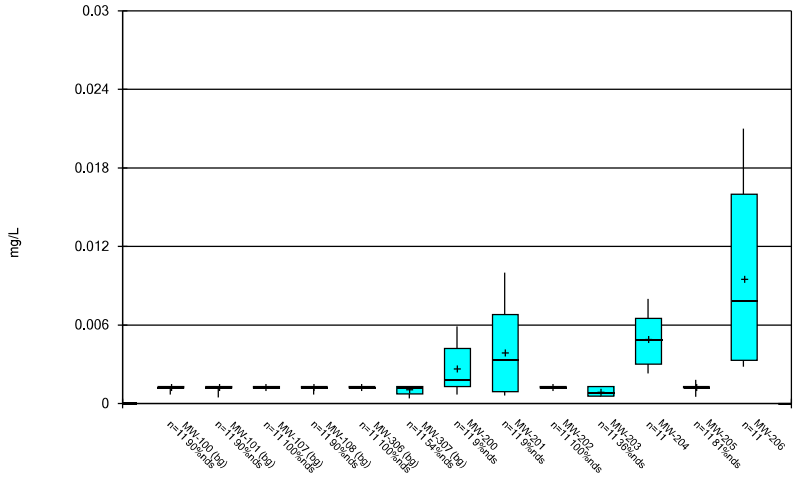
Box & Whiskers Plot



Constituent: Antimony Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

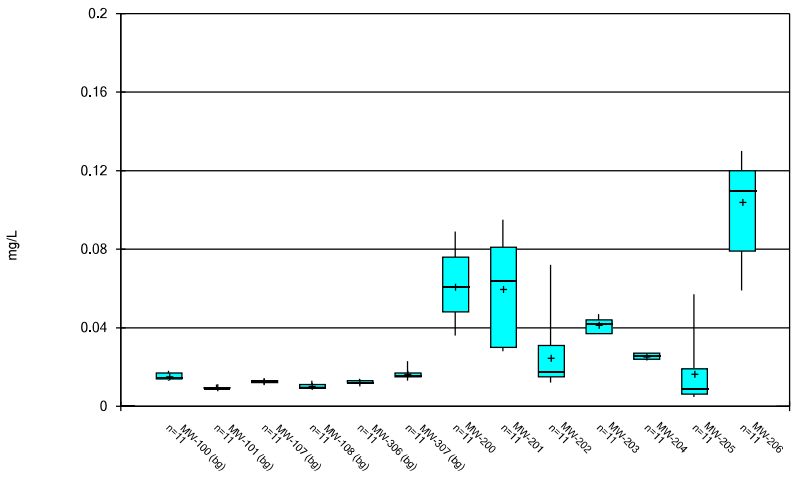
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

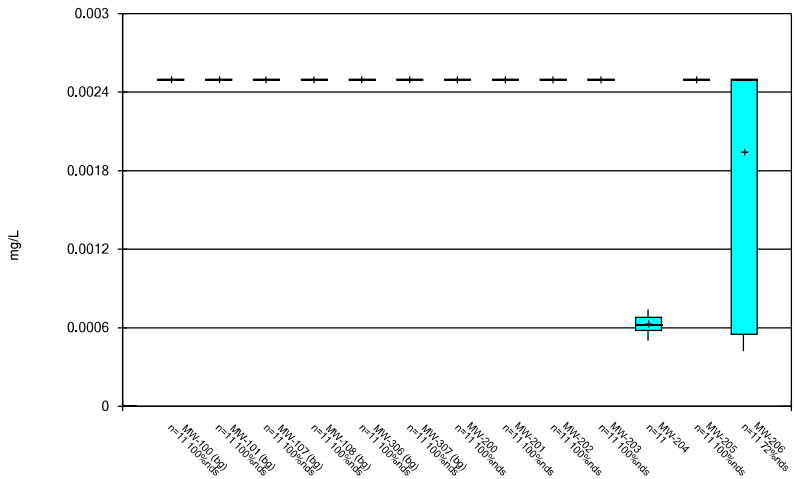
Box & Whiskers Plot



Constituent: Barium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

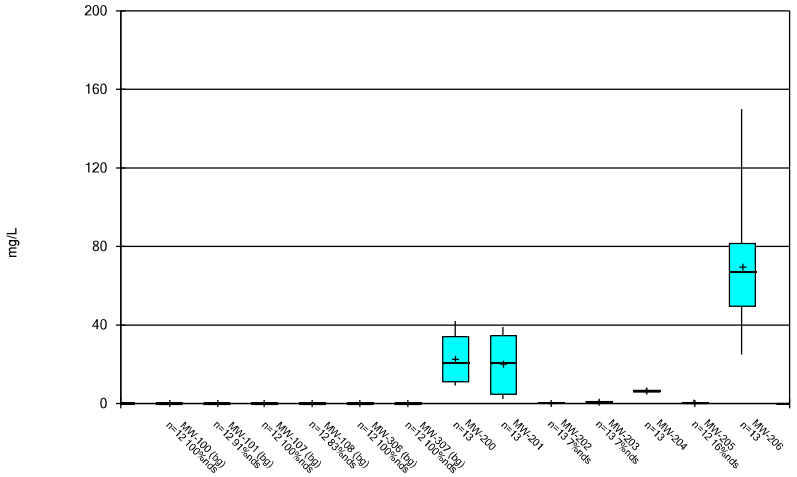
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

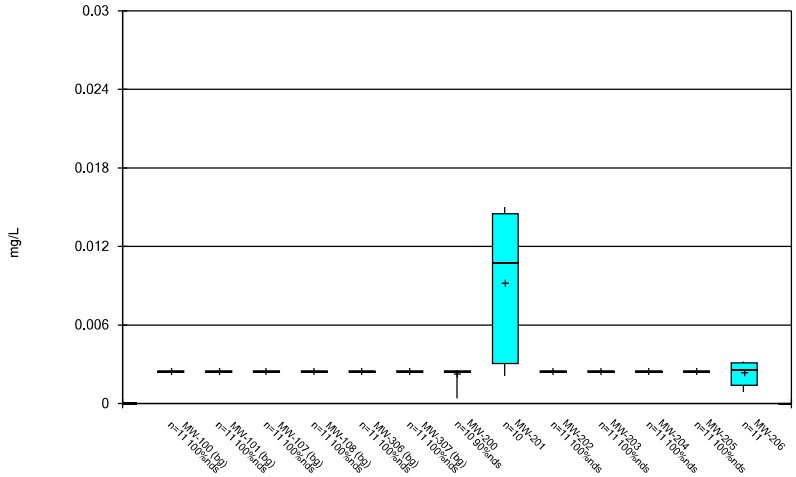


Constituent: Boron Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

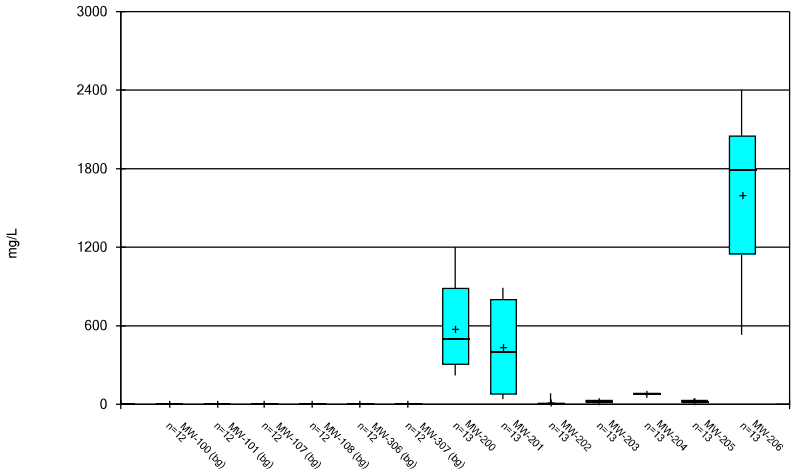


Constituent: Cadmium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

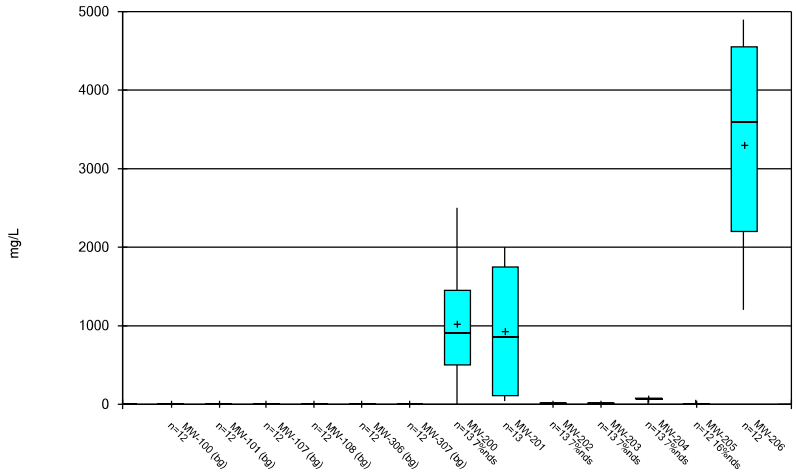


Constituent: Calcium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

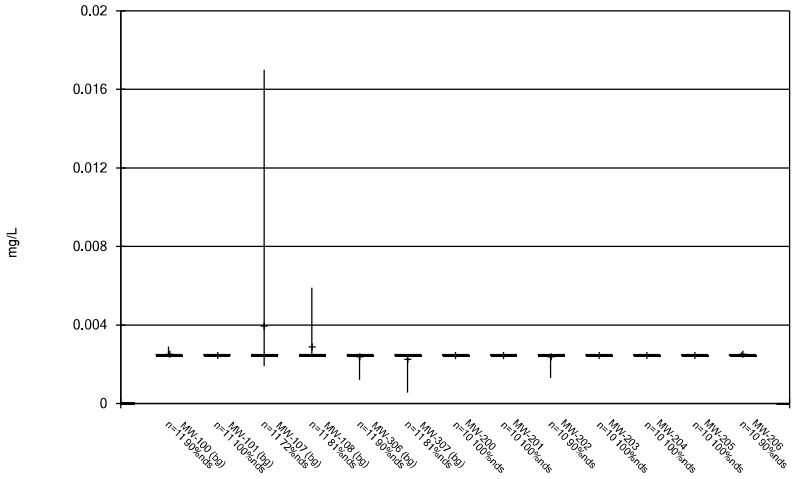
Box & Whiskers Plot



Constituent: Chloride Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

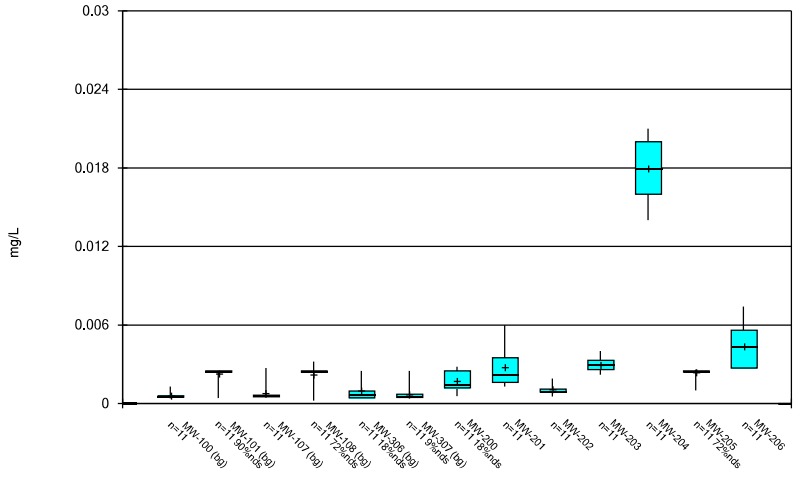
Box & Whiskers Plot



Constituent: Chromium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

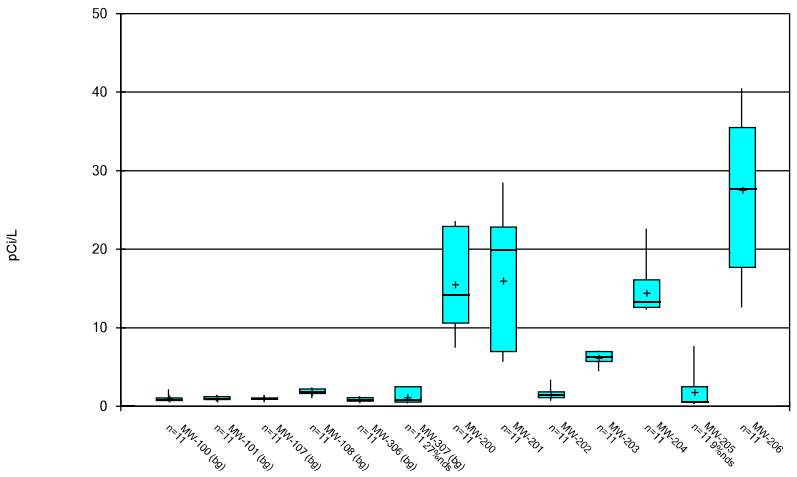
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

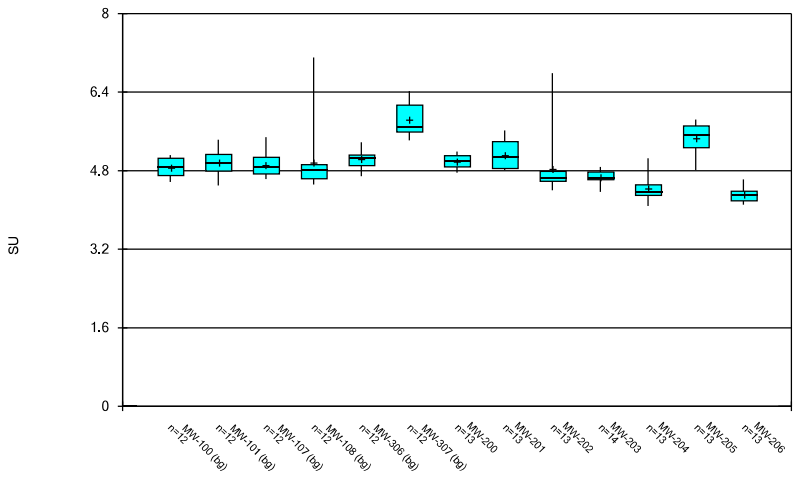
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Seri
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

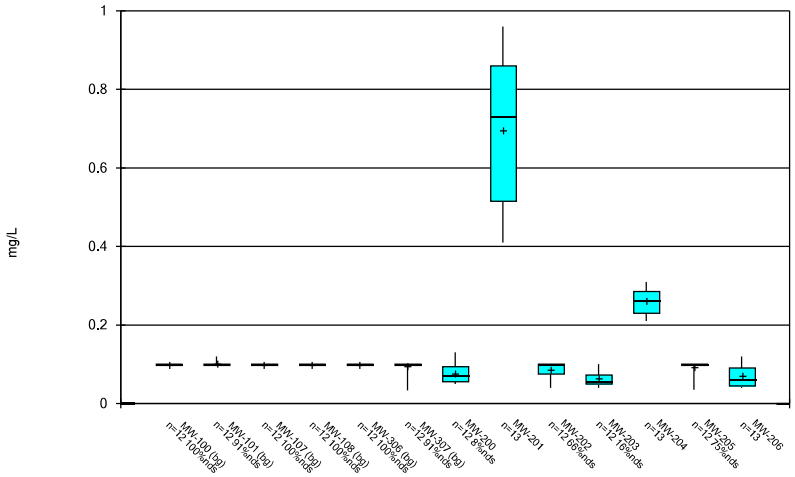
Box & Whiskers Plot



Constituent: Field pH Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

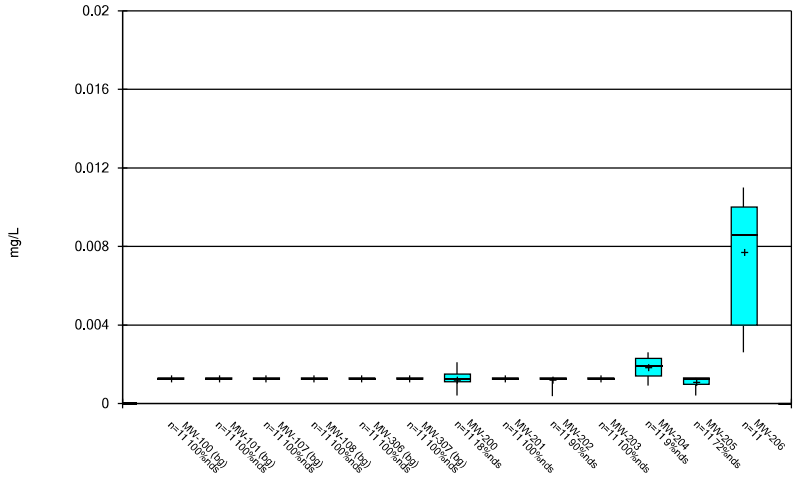


Constituent: Fluoride Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

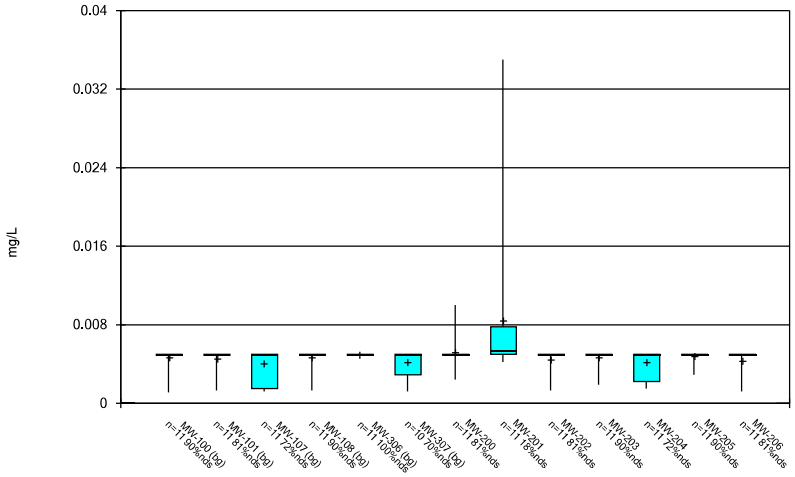


Constituent: Lead Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

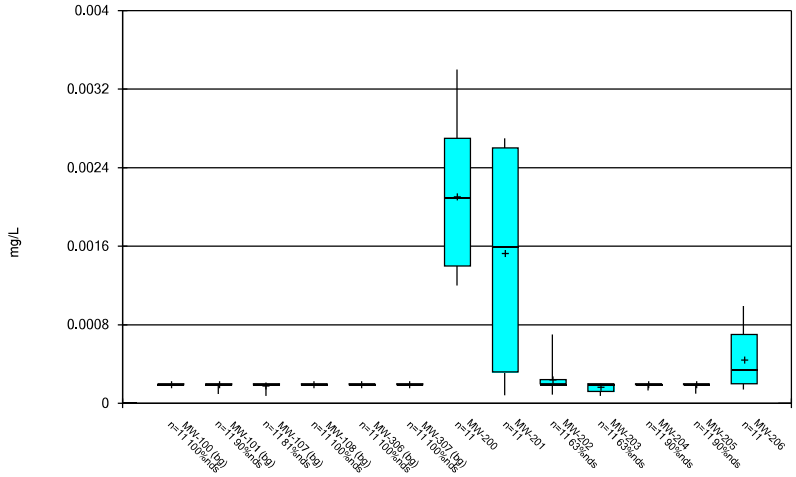


Constituent: Lithium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

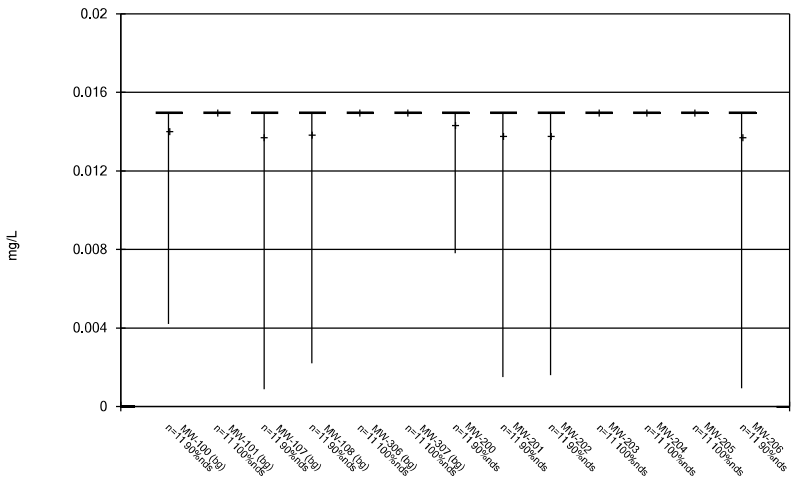
Box & Whiskers Plot



Constituent: Mercury Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

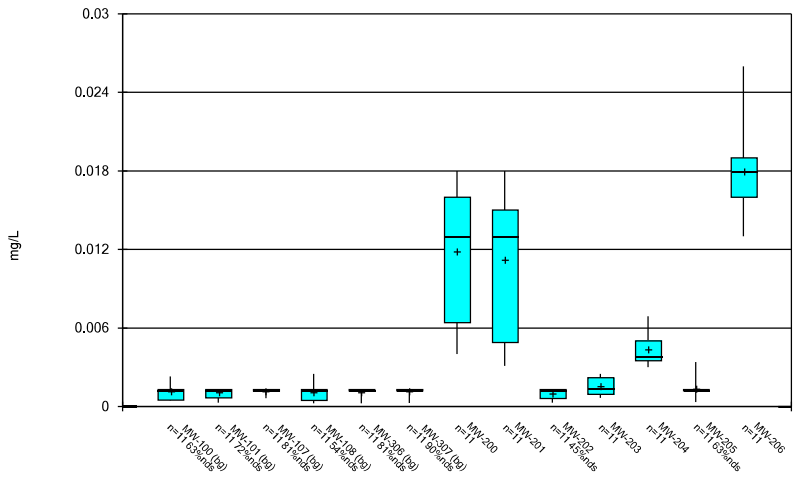
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

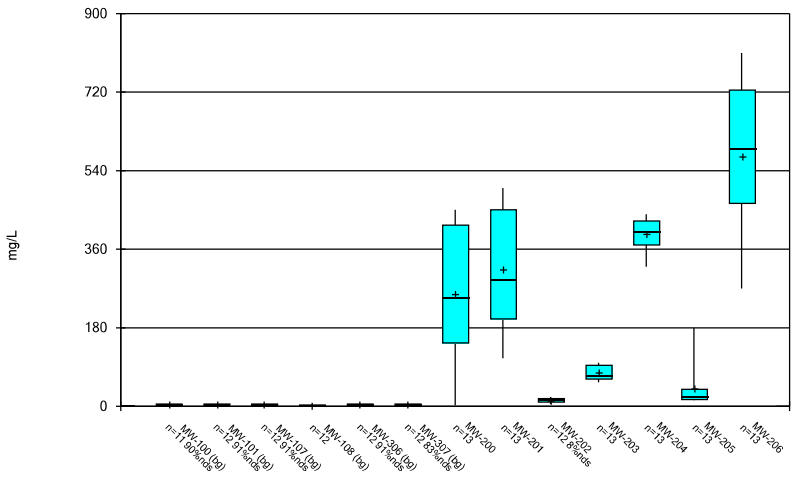
Box & Whiskers Plot



Constituent: Selenium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

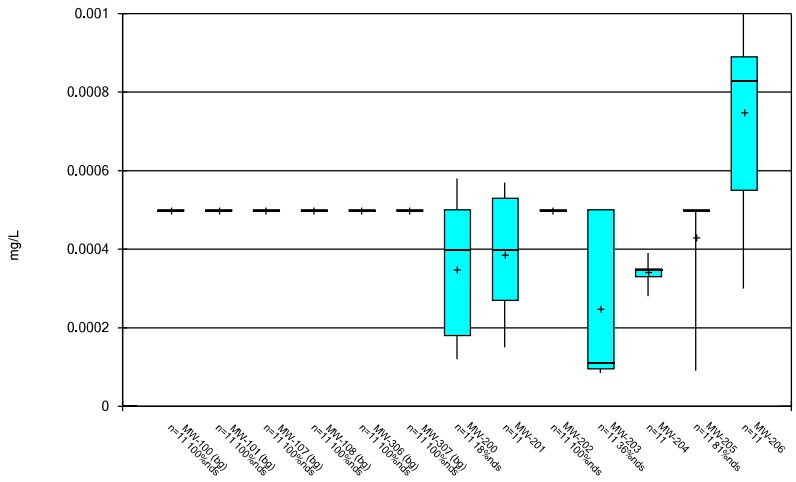
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

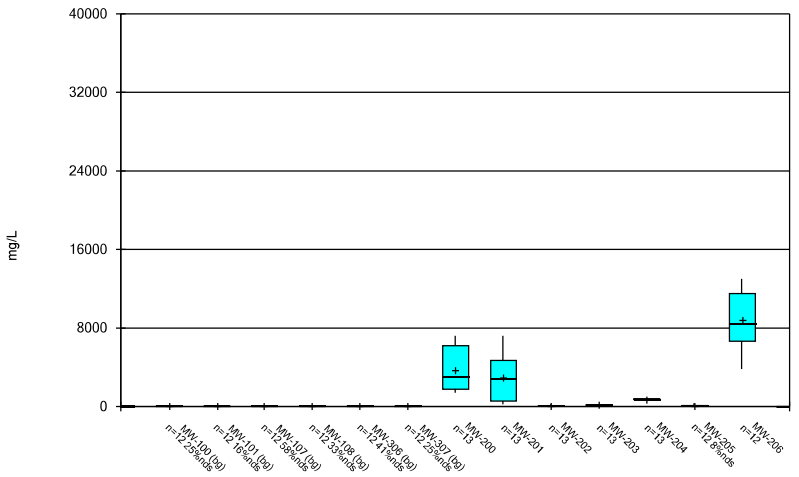
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 2/11/2019 11:23 AM View: Descriptive - 200 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Box & Whiskers Plot



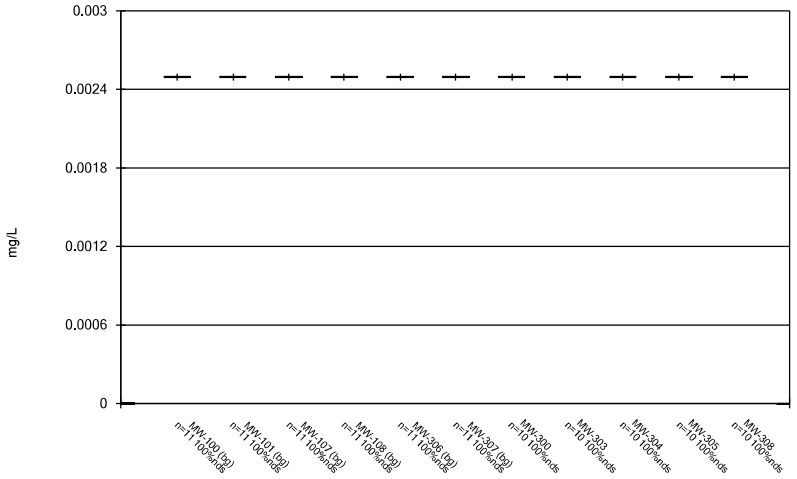
Constituent: Total Dissolved Solids Analysis Run 2/11/2019 11:24 AM View: Descriptive - 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

300 Series

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

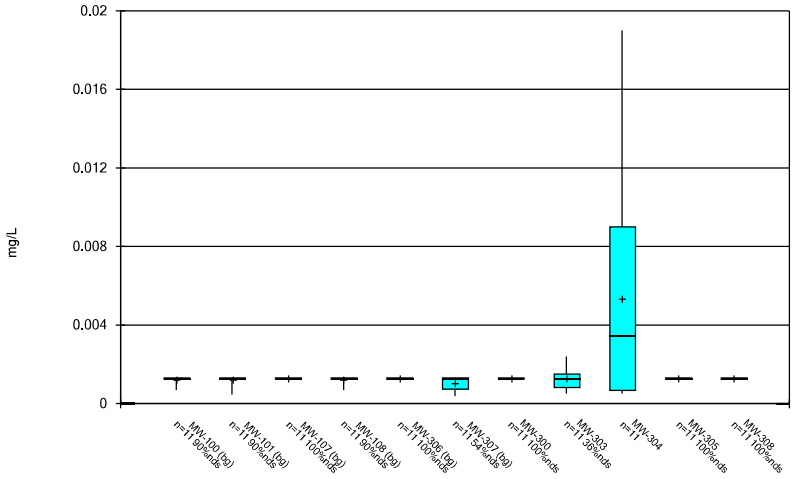
Box & Whiskers Plot



Constituent: Antimony Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

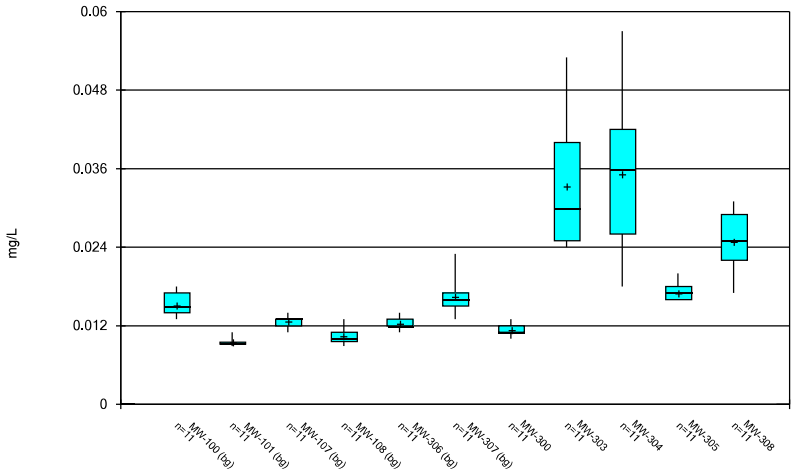
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

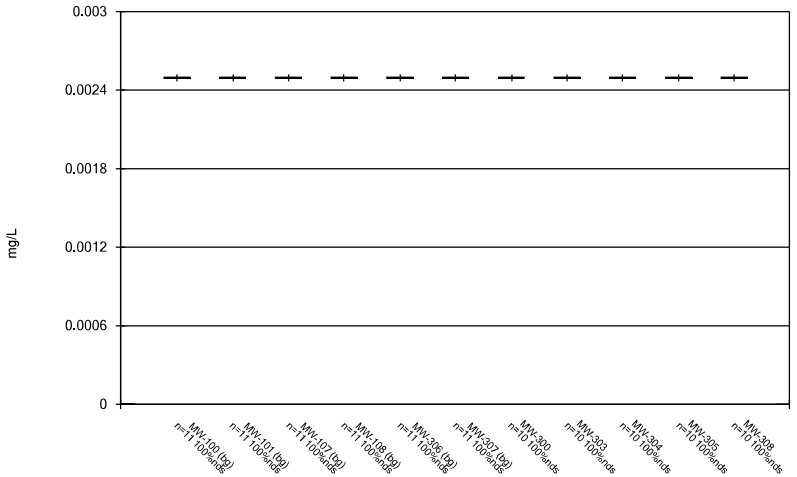
Box & Whiskers Plot



Constituent: Barium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

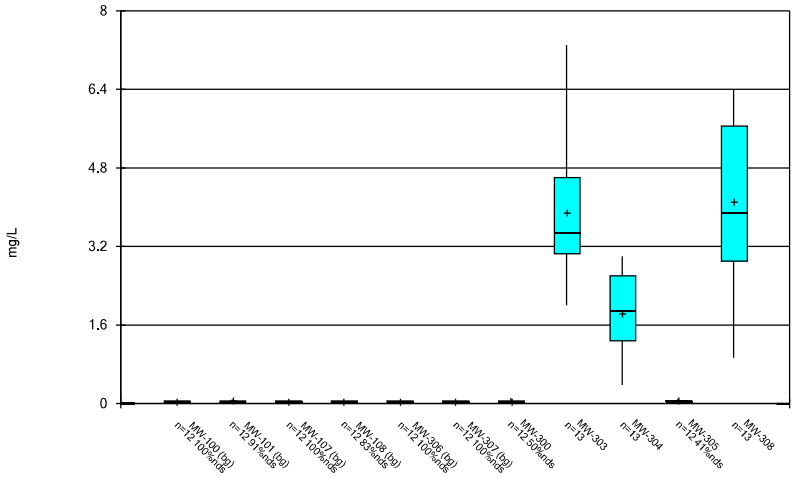
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

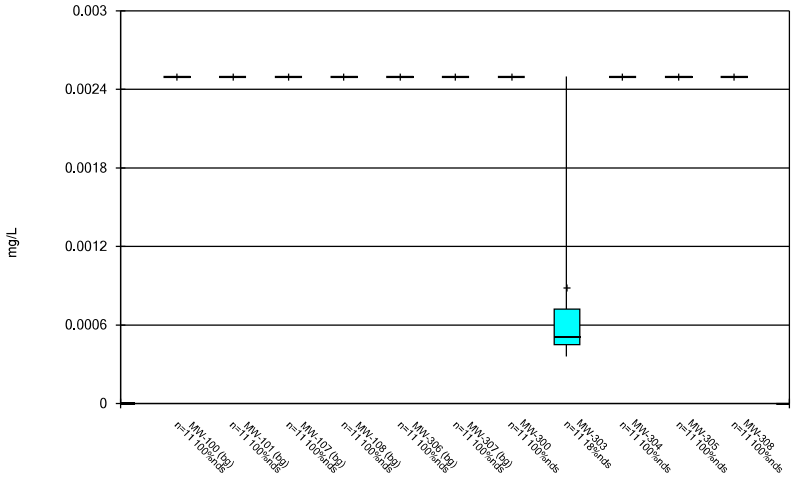
Box & Whiskers Plot



Constituent: Boron Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

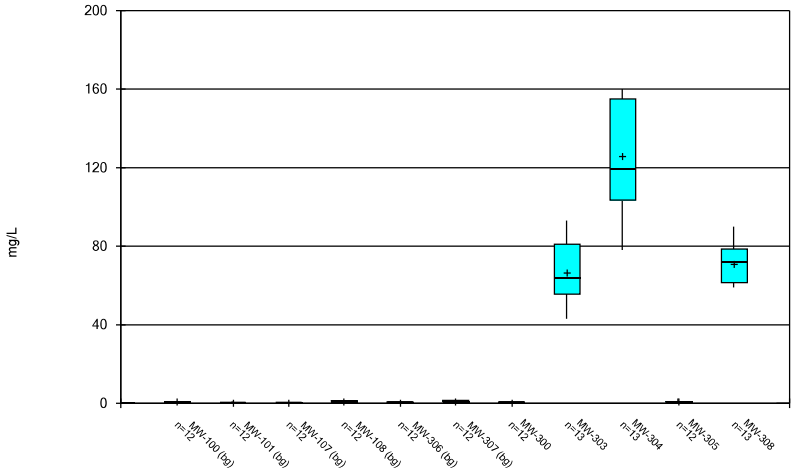
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

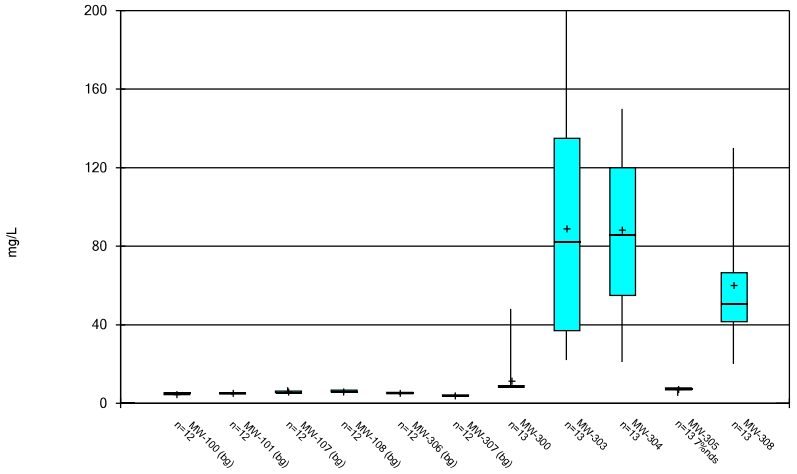
Box & Whiskers Plot



Constituent: Calcium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

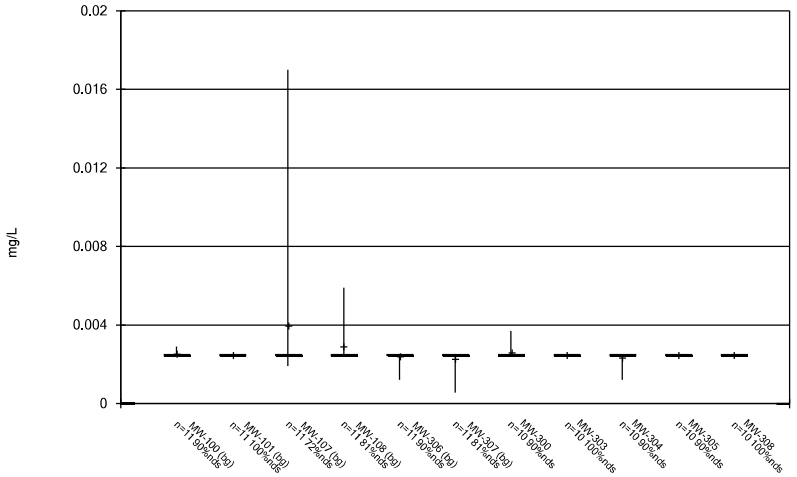
Box & Whiskers Plot



Constituent: Chloride Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

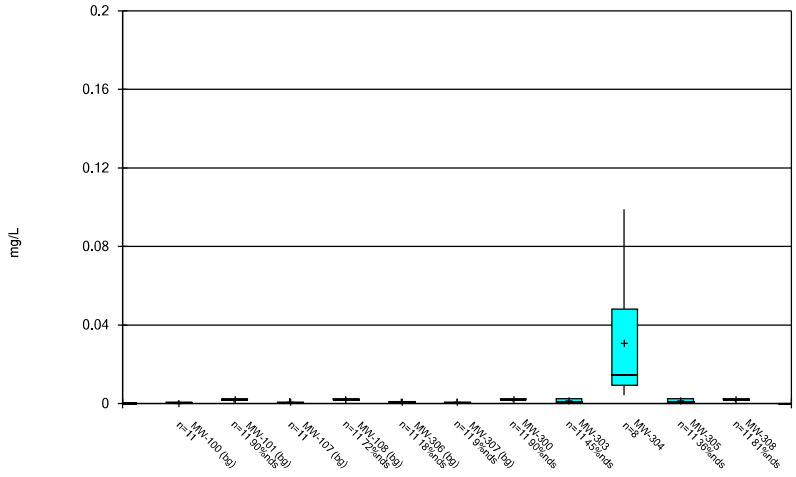
Box & Whiskers Plot



Constituent: Chromium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

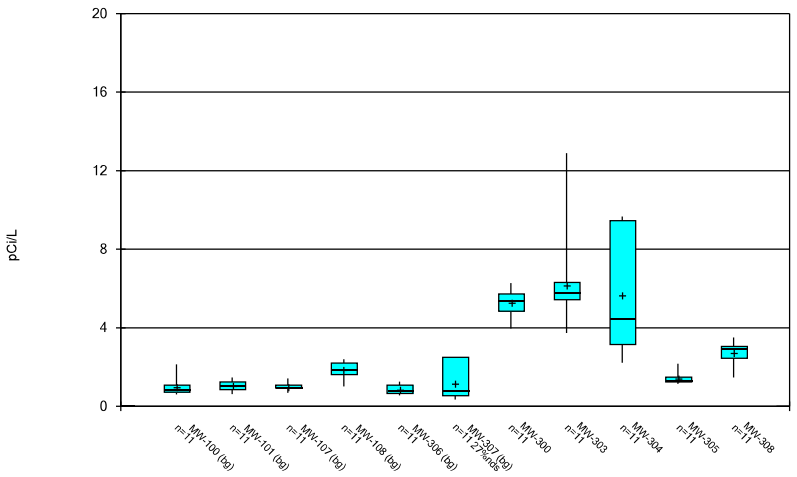
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

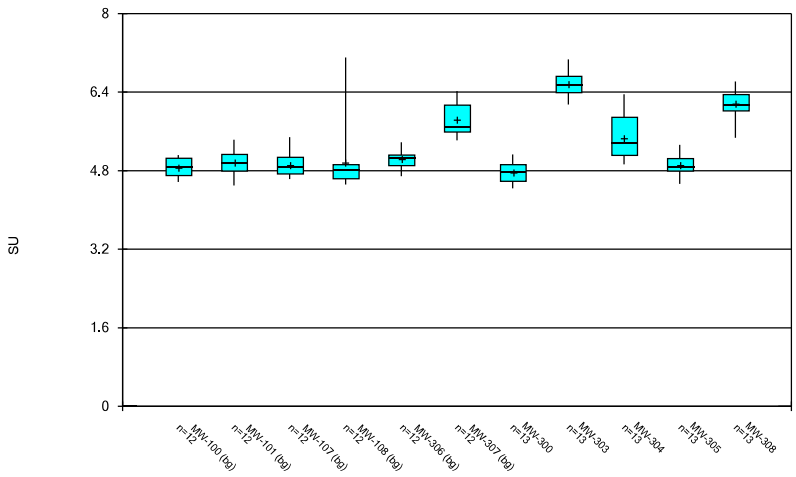
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Serie
Plant Crist Client: Gulf Power Data: Plant Crist CCR

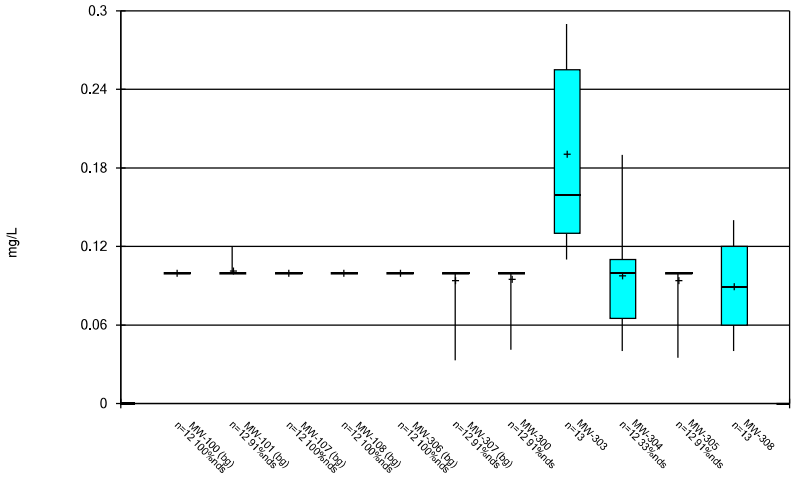
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Field pH Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

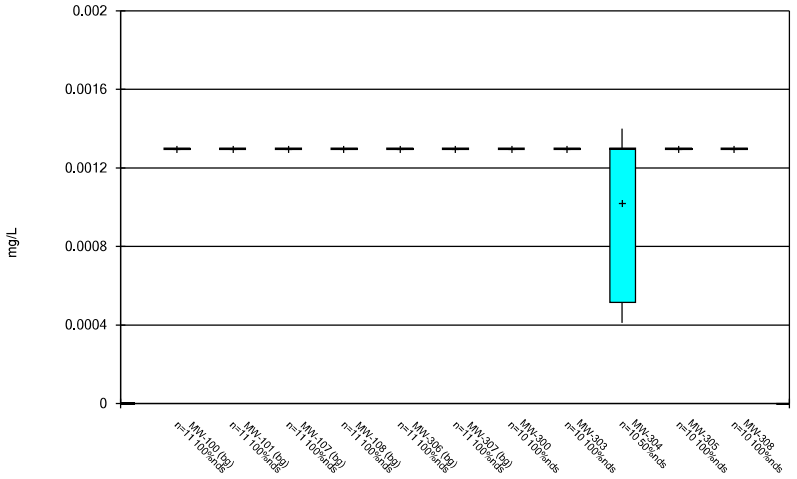
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

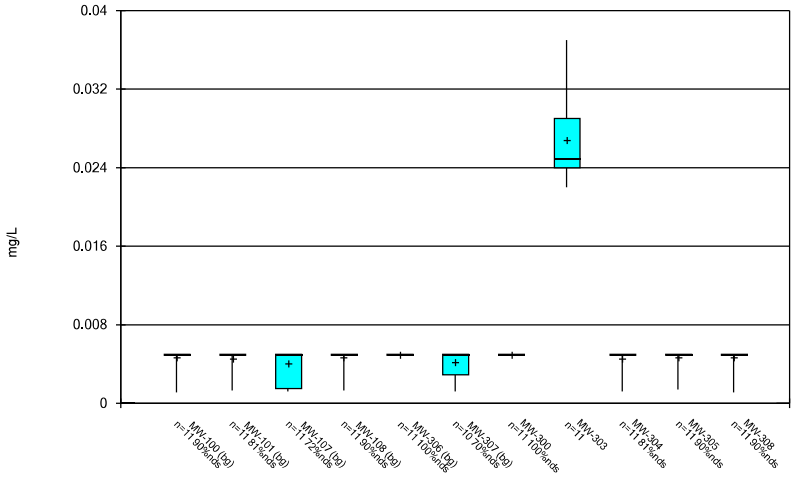
Box & Whiskers Plot



Constituent: Lead Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

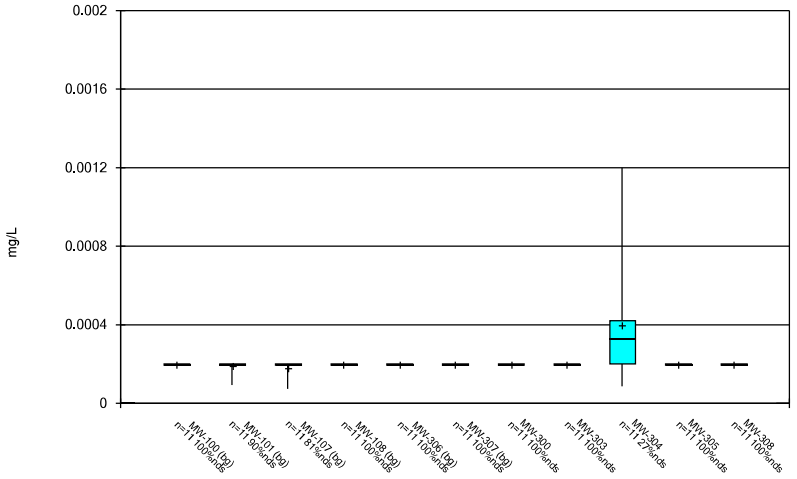
Box & Whiskers Plot



Constituent: Lithium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

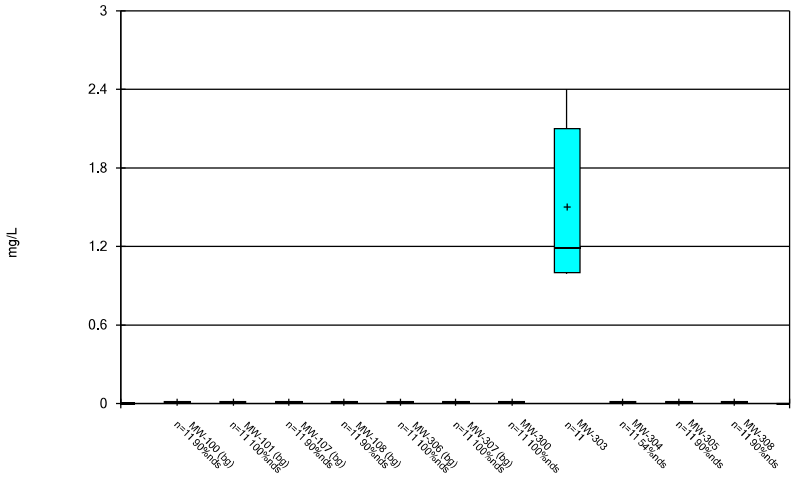
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Mercury Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

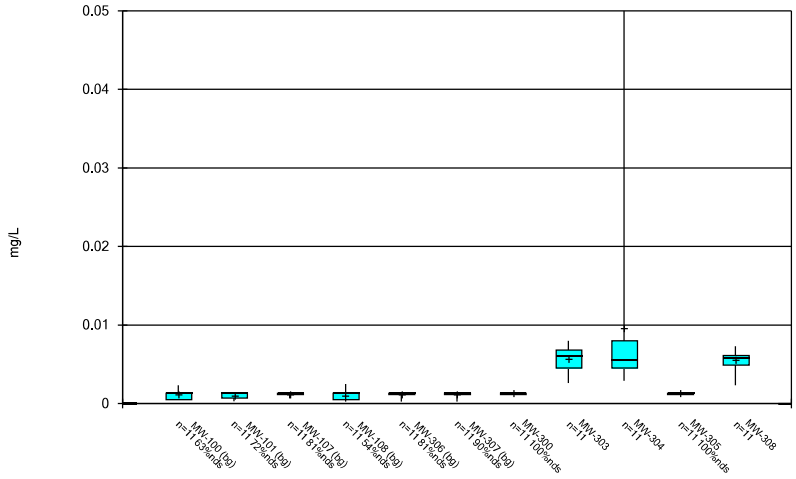
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

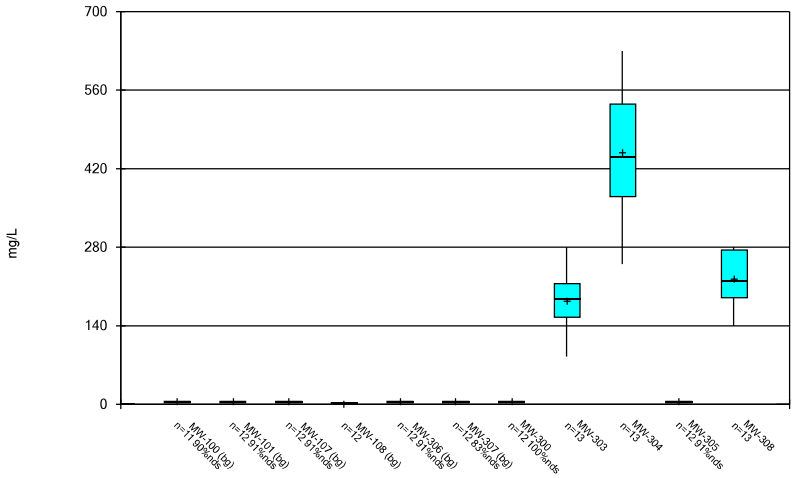
Box & Whiskers Plot



Constituent: Selenium Analysis Run 2/11/2019 1:10 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

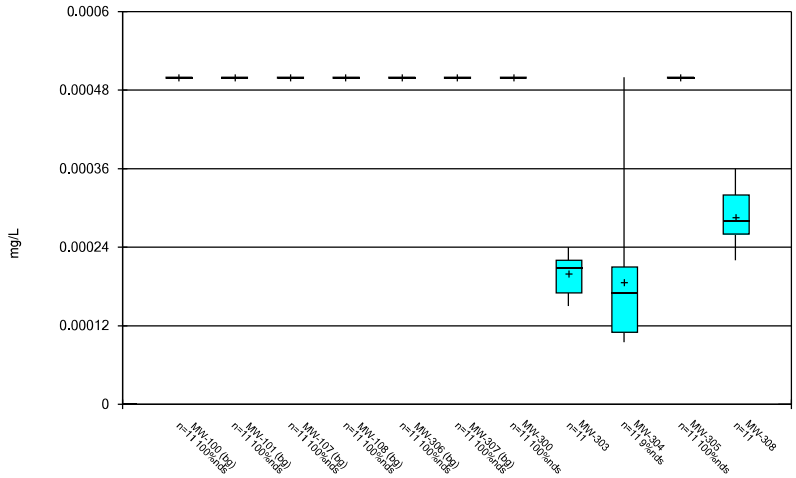
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 2/11/2019 1:11 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

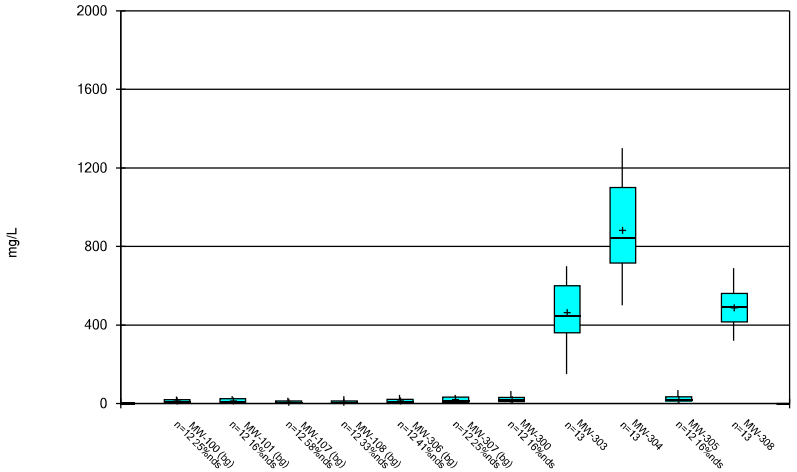
Sanitas™ v.9.6.12 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 2/11/2019 1:11 PM View: Descriptive - 300 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 2/11/2019 1:11 PM View: Descriptive - 300 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

APPENDIX C

Statistical Analyses – May/June 2019 Semi-Annual Monitoring

SUMMER 2019

GROUNDWATER STATISTICAL ANALYSIS

FOR GULF POWER'S

PLANT CRIST

Prepared by:

Groundwater Stats Consulting LLC

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GROUNDWATER STATS CONSULTING

November 13, 2019

Geosyntec Consultants
Attn: Mr. Benjamin K. Amos, Ph.D., P.E.
1255 Roberts Boulevard, Suite 200
Kennesaw, GA 30144

Re: Plant Crist
Statistical Analysis – June 2019 Sample Event

Dear Mr. Dorman,

Groundwater Stats Consulting (GSC), formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the background update and statistical analysis of the groundwater data for the June 2019 sample event at Gulf Power Company's Plant Crist. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at Plant Crist for the CCR program in 2016 at each of the groundwater monitoring wells. The monitoring well network, as provided by Geosyntec Consultants, is provided below. The monitoring well network for the Gypsum Storage Area originally included wells MW-202, MW-203, MW-204 and MW-205. However, further research conducted by Geosyntec Consultants, reportedly, concluded that the location of these compliance wells does not represent the zone of groundwater quality downgradient of the site and, therefore, would not identify whether groundwater is affected from practices at the site. Therefore, these wells are not included in the statistical analysis provided in this report.

- **Upgradient wells:** MW-100, MW-101, MW-107, MW-108, MW-306, MW-307

- **Ash Landfill No. 1 (100 Series):** MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110
- **Gypsum Storage Area (200 Series):** MW-200, MW-201, MW-206
- **Ash Landfill No. 2 (300 Series):** MW-300, MW-303, MW-304, MW-305, MW-308

Data were provided electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The statistical analysis was performed according to the groundwater data screening that was performed in October 2017 by GSC and approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III and IV parameters at the 100, 200 and 300 series wells are provided for these wells for the above constituents. Additionally, box plots are included for these constituents. The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

Proposed background data at all wells were evaluated, and reports submitted, during the October 2017 screening for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided for interwell and intrawell prediction limits, based on the number of downgradient wells which is 5 for the 300 series wells and 7 for the 100 and 200 series wells, to demonstrate that the selected statistical methods for Appendix III parameters complies with the USEPA Unified Guidance recommendations as discussed below.

Historical Summary – October 2017 Background Screening

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits. The results of those findings were submitted with the October 2017 report. A summary of flagged values follows this letter. These values maybe also be seen on the time series graphs as disconnected points and on the data pages in a lighter font. No seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visually identified, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses show a few statistically significant decreasing trends and one increasing trend. All trends noted were relatively low in magnitude when compared to average concentrations. Therefore, no adjustments were necessary.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average

concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Crist for the following Appendix III parameters: calcium, chloride, pH, and sulfate. No statistically significant variation was noted for boron, fluoride or TDS, making these constituents eligible for interwell analyses. All other constituents were further evaluated as described below for the appropriateness of intrawell testing to accommodate the groundwater quality. A summary table of the ANOVA results was included in the screening report.

Appendix III – Intrawell Method Eligibility Screening

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, several steps are required to reasonably demonstrate that downgradient water quality does not have existing impacts from the practices of the facility.

Exploratory data analysis was used as a general comparison of concentrations in downgradient wells for all Appendix III parameters recommended for intrawell analyses to concentrations reported in upgradient wells. Upper tolerance limits are used in conjunction with confidence intervals to determine whether the estimated averages in downgradient wells are higher than observed levels upgradient of the facility. The upper tolerance limits were constructed to represent the extreme upper range of potential background levels at the site.

Either parametric or nonparametric tolerance limits are calculated based on the data characteristics that are described below for prediction limits. Parametric tolerance limits (for normal or transformed-normally distributed data) were constructed with a target of 99% confidence and 95% coverage using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. For non-normal data, nonparametric tolerance limits are used. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

As more data are collected, the background population is better represented, and the confidence and coverage levels increase.

Confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting spatial variation, using the tolerance limits discussed above, to determine intrawell eligibility. Either parametric or nonparametric confidence intervals were constructed as appropriate. When the entire confidence interval is above the background limit for a given parameter, interwell methods are initially recommended as the statistical method. Note that this screening identifies whether confidence intervals are above a background limit but does not identify the reason for this occurrence. Therefore, only the wells/parameters with confidence intervals which did not exceed background limits are eligible for intrawell prediction limits.

Confidence intervals for Appendix III parameters were found to be above the background standards in at least one well for each parameter at Ash Landfill No. 1. Therefore, interwell prediction limits are recommended initially for all Appendix III parameters at this unit. Confidence intervals were above background standards for all parameters except pH at the Gypsum Storage Area and Ash Landfill No. 2. Therefore, intrawell methods may be used for pH and interwell methods for all other Appendix III parameters at these two units. The results of the upper tolerance limits calculations and confidence interval comparisons were presented in the background screening report.

If further evaluation confirms natural variation in groundwater at these downgradient wells, intrawell methods will be considered for these parameters. In cases where downgradient average concentrations are higher than observed concentrations upgradient for a given constituent, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such an assessment is beyond the scope of services provided by Groundwater Stats Consulting. When there is not an obvious explanation for observed concentration differences in downgradient wells relative to reported concentrations in upgradient wells, interwell prediction limits will initially be selected for the statistical method until further evidence shows that concentrations are due to natural variation rather than a result of the facility.

Appendix III Background Update Summary – September 2019

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, are updated by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new

data points. Historical data were evaluated for updating with newer data through June 2019 through the use of time series graphs to identify potential outliers when necessary, as well as with the Mann Whitney test for equality of medians. Intrawell prediction limits are used to evaluate pH due to natural spatial variation for this parameter. However, only the 200 and 300 series wells were eligible for intrawell testing for pH, as discussed earlier. The 100 series wells, therefore, utilize interwell prediction limits for pH.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, chloride, fluoride, (pH for the 100 series wells), sulfate and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Prior to performing prediction limits, proposed background data through March 2019 were reviewed to identify any newly suspected outliers at all wells for pH for intrawell testing, and through June 2019 at upgradient wells for boron, calcium, chloride, fluoride, pH, sulfate and TDS for interwell testing. Visual screening is used to identify potential outliers using time series graphs. When necessary, Tukey's outlier test is used to formally test suspected outliers. No additional outlier testing was required during this analysis. Previously flagged values were excluded to reduce variation, better represent background conditions, and provide limits that are conservative from a regulatory perspective. As mentioned above, flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages. A summary of flagged values follows this letter.

For pH which required intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2017 to newer compliance samples through March 2019 at each of the 200 and300 series wells and upgradient wells to evaluate whether the groups are statistically similar at the 99% confidence level. If no statistically significant difference is found background data may be updated with compliance data. No statistically significant differences were found between the two groups for pH except at the Gypsum Storage Area for well MW-201. However, the measurements range from 5.62 s.u. to 4.71 s.u. which is in line with concentrations in the other wells and show only a slight decrease in more recent data. Therefore, the background data were updated and will be re-evaluated during the next background update. All other background data sets were updated.

In the future, if the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background data may not updated to include the newer data, but will be reconsidered in the future. A summary of these results follows this letter, and the test results are included with the Mann-Whitney test section at the end of this report.

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant trends are identified in upgradient wells, the earlier portion of data is deselected prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. No statistically significant increasing trends were noted in upgradient wells. Two statistically significant decreasing trends were identified; however, the magnitude of the trends was low relative to average concentrations, and no adjustment of the record was required. A summary of the trend test results may be seen on the Trend Test Summary Table.

Prediction Limits - Appendix III Parameters

All available upgradient well data through June 2019 were used to establish interwell prediction limits based on a 1-of-2 resample plan that are compared against the most recent compliance sample at each downgradient well at the Ash Landfill No. 1. Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for boron, calcium, chloride, fluoride, pH, sulfate, and TDS. These same limits are used at the Gypsum Storage Area and Ash Landfill No. 2, except for pH. Intrawell prediction limits, using background data through March 2019, combined with a 1-of-2 resample plan are constructed for pH at the Gypsum Storage Area and at Landfill No. 2. Prediction limits combined with retesting meet the recommended guidelines with respect to the annual false positive rate and power requirements as described in the EPA Unified Guidance (2009). With limited background data, initially some of the nonparametric prediction limits will have a higher false positive rate associated with each test. However, as more data are collected and incorporated into background, the false positive rate associated with the nonparametric tests will decrease.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits will be necessary to accommodate these types of changes. In the intrawell case, data are evaluated when at least 4 new compliance values are available. In the interwell case, newer data are carefully evaluated during each event for new outliers, and prediction limits are constructed using all available data from upgradient wells.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of an additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. Exceedances were noted at each of the units, and the results may be found following this letter in the Prediction Limit Summary Tables.

Evaluation of Appendix IV Parameters

Either parametric or nonparametric tolerance limits, as appropriate, were used to calculate background limits from pooled upgradient well data for Appendix IV parameters, with a target of 95% confidence and 95% coverage for parametric limits, to determine the

Alternate Contaminant Level (ACL). The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These limits were compared to the Maximum Contaminant Levels (MCLs) and CCR rule-specified levels to determine the highest limit for use as the Groundwater Protection Standard (GWPS) in the Confidence Interval comparisons.

Confidence intervals were then constructed on downgradient wells, using all historical data within a given well, for each of the Appendix IV parameters and compared to the highest limit of either the MCL, rule-specified level, or ACL discussed above. For cobalt in well MW-304, the most recent 8 samples are used to construct the confidence interval, rather than the entire data set, to reflect present-day concentrations. The historical data for this constituent had higher concentrations due to a broken pipe that influenced groundwater quality at this well. Concentrations, as expected, have continued to decrease since the pipe was fixed. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. Tables of the upper tolerance limits, confidence intervals along with graphical comparisons against standards, and significant results (exceedances) follow this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Crist. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,



Kristina L. Rayner
Groundwater Statistician

Summary Tables

Outlier Summary

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/13/2019, 8:10 AM

	MW-304 Arsenic (mg/L)	MW-200 Cadmium (mg/L)	MW-206 Chloride (mg/L)	MW-107 Chromium (mg/L)	MW-307 Lithium (mg/L)	MW-304 Selenium (mg/L)	MW-100 Sulfate (mg/L)	MW-202 Sulfate (mg/L)	MW-205 Total Dissolved Solids (mg/L)	MW-206 Total Dissolved Solids (mg/L)
3/2/2016		0.022 (o)								32000 (o)
3/3/2016	0.009 (o)									
5/2/2016							15 (o)			
5/3/2016								360 (o)	160 (o)	
5/4/2016	0.019 (o)									
7/5/2016			360 (o)							
7/6/2016	0.014 (o)									
11/7/2016					0.0097 (o)					
1/9/2017				0.017 (o)						
10/17/2018						0.05 (o)				

Interwell Prediction Limit Summary - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-102	0.081	n/a	6/3/2019	0.17	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.081	n/a	6/11/2019	0.39	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.081	n/a	6/3/2019	11	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.081	n/a	6/3/2019	1.7	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.081	n/a	6/3/2019	0.45	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.081	n/a	6/3/2019	3	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-102	1.445	n/a	6/3/2019	2	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-103	1.445	n/a	6/11/2019	3.5	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.445	n/a	6/3/2019	49	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.445	n/a	6/3/2019	65	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.445	n/a	6/3/2019	3.9	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.445	n/a	6/3/2019	13	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-102	6.741	n/a	6/3/2019	13	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.741	n/a	6/11/2019	17	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.741	n/a	6/3/2019	110	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.741	n/a	6/3/2019	86	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.741	n/a	6/3/2019	8.5	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.741	n/a	6/3/2019	79	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-104	7.11	4.5	6/3/2019	4.17	Yes	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-104	0.12	n/a	6/3/2019	0.22	Yes	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	6/11/2019	32	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	6/3/2019	480	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	6/3/2019	58	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	6/3/2019	21	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	6/3/2019	150	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-104	110	n/a	6/3/2019	950	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-105	110	n/a	6/3/2019	500	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-110	110	n/a	6/3/2019	420	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-102**	**0.081**	**n/a**	**6/3/2019**	**0.17**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-103**	**0.081**	**n/a**	**6/11/2019**	**0.39**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-104**	**0.081**	**n/a**	**6/3/2019**	**11**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-105**	**0.081**	**n/a**	**6/3/2019**	**1.7**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-106	0.081	n/a	6/3/2019	0.05ND	No	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-109**	**0.081**	**n/a**	**6/3/2019**	**0.45**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-110**	**0.081**	**n/a**	**6/3/2019**	**3**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-102**	**1.445**	**n/a**	**6/3/2019**	**2**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-103**	**1.445**	**n/a**	**6/11/2019**	**3.5**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-104**	**1.445**	**n/a**	**6/3/2019**	**49**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-105**	**1.445**	**n/a**	**6/3/2019**	**65**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	MW-106	1.445	n/a	6/3/2019	0.38	No	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	**MW-109**	**1.445**	**n/a**	**6/3/2019**	**3.9**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-110**	**1.445**	**n/a**	**6/3/2019**	**13**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-102**	**6.741**	**n/a**	**6/3/2019**	**13**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-103**	**6.741**	**n/a**	**6/11/2019**	**17**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-104**	**6.741**	**n/a**	**6/3/2019**	**110**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-105**	**6.741**	**n/a**	**6/3/2019**	**86**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	MW-106	6.741	n/a	6/3/2019	3.3	No	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	**MW-109**	**6.741**	**n/a**	**6/3/2019**	**8.5**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-110**	**6.741**	**n/a**	**6/3/2019**	**79**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Field pH (SU)	MW-102	7.11	4.5	6/3/2019	4.7	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-103	7.11	4.5	6/11/2019	4.97	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	**MW-104**	**7.11**	**4.5**	**6/3/2019**	**4.17**	**Yes**	**84**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005477**	**NP Inter (normality) 1 of 2**
Field pH (SU)	MW-105	7.11	4.5	6/3/2019	6.23	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-106	7.11	4.5	6/3/2019	5.12	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-109	7.11	4.5	6/3/2019	4.75	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-110	7.11	4.5	6/3/2019	5.56	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-102	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-103	0.12	n/a	6/11/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-104**	**0.12**	**n/a**	**6/3/2019**	**0.22**	**Yes**	**84**	**n/a**	**n/a**	**97.62**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Fluoride (mg/L)	MW-105	0.12	n/a	6/3/2019	0.04	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-106	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-109	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-110	0.12	n/a	6/3/2019	0.04	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-102	5	n/a	6/3/2019	3.5	No	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-103**	**5**	**n/a**	**6/11/2019**	**32**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-104**	**5**	**n/a**	**6/3/2019**	**480**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-105**	**5**	**n/a**	**6/3/2019**	**58**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-106	5	n/a	6/3/2019	5ND	No	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-109**	**5**	**n/a**	**6/3/2019**	**21**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-110**	**5**	**n/a**	**6/3/2019**	**150**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	MW-102	110	n/a	6/3/2019	54	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-103	110	n/a	6/11/2019	110	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-104**	**110**	**n/a**	**6/3/2019**	**950**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-105**	**110**	**n/a**	**6/3/2019**	**500**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	MW-106	110	n/a	6/3/2019	28	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-109	110	n/a	6/3/2019	54	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-110**	**110**	**n/a**	**6/3/2019**	**420**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limit Summary - 200 Series Wells Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/13/2019, 8:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-200	0.081	n/a	6/4/2019	11	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.081	n/a	6/4/2019	5.2	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.081	n/a	6/4/2019	19	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.349	n/a	6/4/2019	170	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.349	n/a	6/4/2019	54	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.349	n/a	6/4/2019	380	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.569	n/a	6/4/2019	310	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.569	n/a	6/4/2019	98	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.569	n/a	6/4/2019	690	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	6/4/2019	100	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	6/4/2019	100	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	6/4/2019	280	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	110	n/a	6/4/2019	1200	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-201	110	n/a	6/4/2019	400	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-206	110	n/a	6/4/2019	2300	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - 200 Series Wells All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/13/2019, 8:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-200**	**0.081**	**n/a**	**6/4/2019**	**11**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-201**	**0.081**	**n/a**	**6/4/2019**	**5.2**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-206**	**0.081**	**n/a**	**6/4/2019**	**19**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-200**	**1.349**	**n/a**	**6/4/2019**	**170**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-201**	**1.349**	**n/a**	**6/4/2019**	**54**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-206**	**1.349**	**n/a**	**6/4/2019**	**380**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-200**	**6.569**	**n/a**	**6/4/2019**	**310**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-201**	**6.569**	**n/a**	**6/4/2019**	**98**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-206**	**6.569**	**n/a**	**6/4/2019**	**690**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-200	0.12	n/a	6/4/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-201	0.12	n/a	6/4/2019	0.09	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-206	0.12	n/a	6/4/2019	0.08	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-200**	**5**	**n/a**	**6/4/2019**	**100**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-201**	**5**	**n/a**	**6/4/2019**	**100**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-206**	**5**	**n/a**	**6/4/2019**	**280**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-200**	**110**	**n/a**	**6/4/2019**	**1200**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-201**	**110**	**n/a**	**6/4/2019**	**400**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-206**	**110**	**n/a**	**6/4/2019**	**2300**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**

Intrawell Prediction Limit Summary - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	**MW-200**	**5.263**	**4.716**	**6/4/2019**	**5.27**	**Yes**	**14**	**4.989**	**0.134**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Field pH (SU)	**MW-206**	**4.64**	**3.998**	**6/4/2019**	**4.69**	**Yes**	**14**	**4.319**	**0.1573**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - 200 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	MW-100	5.257	4.453	5/31/2019	4.9	No	13	4.855	0.1936	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-101	5.491	4.42	5/31/2019	4.92	No	13	4.955	0.258	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-107	5.412	4.406	5/31/2019	4.92	No	13	4.909	0.2421	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-108	5.178	4.369	5/31/2019	4.84	No	12	4.773	0.1917	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-306	5.438	4.624	5/31/2019	4.89	No	13	5.031	0.1961	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-307	6.537	5.063	5/31/2019	5.45	No	13	5.8	0.3549	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	**MW-200**	**5.263**	**4.716**	**6/4/2019**	**5.27**	**Yes**	**14**	**4.989**	**0.134**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Field pH (SU)	MW-201	5.704	4.463	6/4/2019	4.85	No	14	5.084	0.304	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	**MW-206**	**4.64**	**3.998**	**6/4/2019**	**4.69**	**Yes**	**14**	**4.319**	**0.1573**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**

Interwell Prediction Limit Summary - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-303	0.081	n/a	5/31/2019	2.7	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-304	0.081	n/a	5/31/2019	3.1	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-308	0.081	n/a	5/31/2019	4.4	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-303	1.408	n/a	5/31/2019	47	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-304	1.408	n/a	5/31/2019	110	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-305	1.408	n/a	5/31/2019	2.6	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	MW-308	1.408	n/a	5/31/2019	84	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-300	6.676	n/a	5/31/2019	8.2	Yes	84	5.139	0.8471	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-303	6.676	n/a	5/31/2019	50	Yes	84	5.139	0.8471	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-304	6.676	n/a	5/31/2019	130	Yes	84	5.139	0.8471	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-305	6.676	n/a	5/31/2019	9.8	Yes	84	5.139	0.8471	0	None	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	MW-308	6.676	n/a	5/31/2019	110	Yes	84	5.139	0.8471	0	None	No	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	MW-303	0.12	n/a	5/31/2019	0.33	Yes	84	n/a	n/a	97.62	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-308	0.12	n/a	5/31/2019	0.2	Yes	84	n/a	n/a	97.62	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-303	5	n/a	5/31/2019	140	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002807	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-304	5	n/a	5/31/2019	500	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002807	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-305	5	n/a	5/31/2019	12	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002807	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-308	5	n/a	5/31/2019	210	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002807	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-303	110	n/a	5/31/2019	300	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002746	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-304	110	n/a	5/31/2019	1200	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002746	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-308	110	n/a	5/31/2019	620	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002746	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-300	0.081	n/a	5/31/2019	0.05ND	No	84	n/a	n/a	96.43	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-303**	**0.081**	**n/a**	**5/31/2019**	**2.7**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002746**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-304**	**0.081**	**n/a**	**5/31/2019**	**3.1**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002746**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-305	0.081	n/a	5/31/2019	0.05ND	No	84	n/a	n/a	96.43	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-308**	**0.081**	**n/a**	**5/31/2019**	**4.4**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002746**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	MW-300	1.408	n/a	5/31/2019	0.55	No	84	0.8913	0.1266	0	None	x^(1/3)	0.001504	Param Inter 1 of 2
Calcium (mg/L)	**MW-303**	**1.408**	**n/a**	**5/31/2019**	**47**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-304**	**1.408**	**n/a**	**5/31/2019**	**110**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-305**	**1.408**	**n/a**	**5/31/2019**	**2.6**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001504**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-308**	**1.408**	**n/a**	**5/31/2019**	**84**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-300**	**6.676**	**n/a**	**5/31/2019**	**8.2**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-303**	**6.676**	**n/a**	**5/31/2019**	**50**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-304**	**6.676**	**n/a**	**5/31/2019**	**130**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-305**	**6.676**	**n/a**	**5/31/2019**	**9.8**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-308**	**6.676**	**n/a**	**5/31/2019**	**110**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001504**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-300	0.12	n/a	5/31/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-303**	**0.12**	**n/a**	**5/31/2019**	**0.33**	**Yes**	**84**	**n/a**	**n/a**	**97.62**	**n/a**	**n/a**	**0.0002746**	**NP Inter (NDs) 1 of 2**
Fluoride (mg/L)	MW-304	0.12	n/a	5/31/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-305	0.12	n/a	5/31/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002746	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-308**	**0.12**	**n/a**	**5/31/2019**	**0.2**	**Yes**	**84**	**n/a**	**n/a**	**97.62**	**n/a**	**n/a**	**0.0002746**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-300	5	n/a	5/31/2019	5ND	No	83	n/a	n/a	74.7	n/a	n/a	0.0002807	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-303**	**5**	**n/a**	**5/31/2019**	**140**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002807**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-304**	**5**	**n/a**	**5/31/2019**	**500**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002807**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-305**	**5**	**n/a**	**5/31/2019**	**12**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002807**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-308**	**5**	**n/a**	**5/31/2019**	**210**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002807**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	MW-300	110	n/a	5/31/2019	36	No	84	n/a	n/a	29.76	n/a	n/a	0.0002746	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-303**	**110**	**n/a**	**5/31/2019**	**300**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002746**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-304**	**110**	**n/a**	**5/31/2019**	**1200**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002746**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	MW-305	110	n/a	5/31/2019	50	No	84	n/a	n/a	29.76	n/a	n/a	0.0002746	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-308**	**110**	**n/a**	**5/31/2019**	**620**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002746**	**NP Inter (normality) 1 of 2**

Intrawell Prediction Limit Summary - 300 Series All Results (No Significant)

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 11:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	MW-100	5.296	4.413	5/31/2019	4.9	No	13	4.855	0.1936	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-101	5.543	4.367	5/31/2019	4.92	No	13	4.955	0.258	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-107	5.461	4.357	5/31/2019	4.92	No	13	4.909	0.2421	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-108	7.11	4.52	5/31/2019	4.84	No	13	n/a	n/a	0	n/a	n/a	0.01938	NP Intra (normality) 1 of 2
Field pH (SU)	MW-306	5.478	4.584	5/31/2019	4.89	No	13	5.031	0.1961	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-307	6.609	4.991	5/31/2019	5.45	No	13	5.8	0.3549	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-300	5.229	4.305	5/31/2019	4.62	No	14	4.767	0.2067	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-303	7.152	5.968	5/31/2019	6.25	No	14	6.56	0.2649	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-304	6.401	4.549	5/31/2019	5.41	No	14	5.475	0.4141	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-305	5.367	4.441	5/31/2019	4.84	No	14	4.904	0.2071	0	None	No	0.000752	Param Intra 1 of 2
Field pH (SU)	MW-308	6.805	5.551	5/31/2019	6.65	No	14	6.178	0.2805	0	None	No	0.000752	Param Intra 1 of 2

Mann-Whitney - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 7:59 AM

Constituent	Well	Calc.	0.01	Sig.	Method
Field pH (SU)	**MW-201**	**-3.034**	**Yes**	**Yes**	**Mann-W**

Mann-Whitney - 200 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 7:59 AM

Constituent	Well	Calc.	0.01	Sig.	Method
Field pH (SU)	MW-100 (bg)	-0.6605	No	No	Mann-W
Field pH (SU)	MW-101 (bg)	-0.07319	No	No	Mann-W
Field pH (SU)	MW-107 (bg)	-0.4398	No	No	Mann-W
Field pH (SU)	MW-108 (bg)	-0.08149	No	No	Mann-W
Field pH (SU)	MW-306 (bg)	-0.7329	No	No	Mann-W
Field pH (SU)	MW-307 (bg)	-2.269	No	No	Mann-W
Field pH (SU)	MW-200	0.71	No	No	Mann-W
Field pH (SU)	**MW-201**	**-3.034**	**Yes**	**Yes**	**Mann-W**
Field pH (SU)	MW-206	0.3882	No	No	Mann-W

Welch's t-test/Mann-Whitney - 300 Series All Results (No Significant)

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 8:15 AM

Constituent	Well	Calc.	0.01	Sig.	Method
Field pH (SU)	MW-100 (bg)	-0.4261	No	No	Mann-W
Field pH (SU)	MW-101 (bg)	0.2548	No	No	Mann-W
Field pH (SU)	MW-107 (bg)	-0.5104	No	No	Mann-W
Field pH (SU)	MW-108 (bg)	-0.5113	No	No	Mann-W
Field pH (SU)	MW-306 (bg)	-0.4246	No	No	Mann-W
Field pH (SU)	MW-307 (bg)	-1.953	No	No	Mann-W
Field pH (SU)	MW-300	-1.83	No	No	Mann-W
Field pH (SU)	MW-303	0.367	No	No	Mann-W
Field pH (SU)	MW-304	2.419	No	No	Mann-W
Field pH (SU)	MW-305	-1.393	No	No	Mann-W
Field pH (SU)	MW-308	-0.2196	No	No	Mann-W

Confidence Interval Summary Table - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 9:18 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**MW-104**	**0.02203**	**0.01351**	**0.006**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-103**	**7.288**	**5.162**	**5**	**n/a**	**Yes**	**13**	**0**	**x^2**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-104**	**18.64**	**12.07**	**5**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-110**	**7.697**	**5.744**	**5**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Mercury (mg/L)	**MW-110**	**0.006307**	**0.00333**	**0.002**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 9:18 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-102	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-103	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-104	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-105	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-106	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-109	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-110	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-102	0.0013	0.0005	0.01	n/a	No	13	92.31	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-103	0.0013	0.00051	0.01	n/a	No	13	92.31	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-104	0.008479	0.003767	0.01	n/a	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	MW-105	0.004183	0.003525	0.01	n/a	No	13	0	No	0.01	Param.
Arsenic (mg/L)	MW-106	0.0013	0.0013	0.01	n/a	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-109	0.0013	0.0013	0.01	n/a	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-110	0.0013	0.0005	0.01	n/a	No	13	61.54	No	0.01	NP (normality)
Barium (mg/L)	MW-102	0.01092	0.008741	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-103	0.06408	0.04672	2	n/a	No	13	0	x^2	0.01	Param.
Barium (mg/L)	MW-104	0.02663	0.01968	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-105	0.04738	0.03692	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-106	0.015	0.0095	2	n/a	No	13	0	No	0.01	NP (normality)
Barium (mg/L)	MW-109	0.02067	0.01764	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-110	0.04905	0.03864	2	n/a	No	13	0	No	0.01	Param.
Beryllium (mg/L)	MW-102	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-103	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-104	0.001282	0.0008423	0.004	n/a	No	13	0	No	0.01	Param.
Beryllium (mg/L)	MW-105	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-106	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-109	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-110	0.0025	0.0025	0.004	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-102	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-103	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-104	0.0025	0.00044	0.005	n/a	No	13	53.85	No	0.01	NP (normality)
Cadmium (mg/L)	MW-105	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-106	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-109	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-110	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-102	0.0028	0.0025	0.1	n/a	No	13	92.31	No	0.01	NP (NDs)
Chromium (mg/L)	MW-103	0.0052	0.0011	0.1	n/a	No	13	84.62	No	0.01	NP (NDs)
Chromium (mg/L)	MW-104	0.0024	0.0015	0.1	n/a	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Chromium (mg/L)	MW-105	0.002596	0.002112	0.1	n/a	No	13	7.692	No	0.01	Param.
Chromium (mg/L)	MW-106	0.0025	0.0025	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-109	0.0025	0.0025	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-110	0.0025	0.0025	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-102	0.0025	0.0025	0.006	n/a	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-103	0.0025	0.00044	0.006	n/a	No	13	69.23	No	0.01	NP (normality)
Cobalt (mg/L)	**MW-104**	**0.02203**	**0.01351**	**0.006**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	MW-105	0.0025	0.0025	0.006	n/a	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-106	0.0025	0.00044	0.006	n/a	No	13	23.08	No	0.01	NP (normality)
Cobalt (mg/L)	MW-109	0.0052	0.0036	0.006	n/a	No	13	0	No	0.01	NP (normality)
Cobalt (mg/L)	MW-110	0.02	0.0043	0.006	n/a	No	13	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-102	2.001	1.232	5	n/a	No	13	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-103**	**7.288**	**5.162**	**5**	**n/a**	**Yes**	**13**	**0**	**x^2**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-104**	**18.64**	**12.07**	**5**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	MW-105	4.438	2.698	5	n/a	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-106	1.33	0.789	5	n/a	No	13	7.692	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-109	2.221	1.404	5	n/a	No	13	0	No	0.01	Param.

Confidence Interval Summary Table - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 9:18 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	**MW-110**	**7.697**	**5.744**	**5**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-102	0.1	0.1	4	n/a	No	14	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-103	0.1	0.037	4	n/a	No	14	92.86	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-104	0.3737	0.241	4	n/a	No	15	0	No	0.01	Param.
Fluoride (mg/L)	MW-105	0.1	0.041	4	n/a	No	14	78.57	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-106	0.1	0.1	4	n/a	No	14	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-109	0.1	0.1	4	n/a	No	14	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-110	0.1	0.04	4	n/a	No	14	71.43	No	0.01	NP (normality)
Lead (mg/L)	MW-102	0.0013	0.0013	0.015	n/a	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	MW-103	0.0013	0.0013	0.015	n/a	No	13	100	No	0.01	NP (NDs)
Lead (mg/L)	MW-104	0.002474	0.001756	0.015	n/a	No	13	0	No	0.01	Param.
Lead (mg/L)	MW-105	0.0013	0.00091	0.015	n/a	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	MW-106	0.0013	0.00039	0.015	n/a	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	MW-109	0.0013	0.00067	0.015	n/a	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	MW-110	0.0013	0.00037	0.015	n/a	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	MW-102	0.005	0.0014	0.04	n/a	No	13	84.62	No	0.01	NP (NDs)
Lithium (mg/L)	MW-103	0.005	0.0015	0.04	n/a	No	13	53.85	No	0.01	NP (normality)
Lithium (mg/L)	MW-104	0.03961	0.02209	0.04	n/a	No	13	0	No	0.01	Param.
Lithium (mg/L)	MW-105	0.005	0.005	0.04	n/a	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	MW-106	0.0073	0.0035	0.04	n/a	No	13	69.23	No	0.01	NP (normality)
Lithium (mg/L)	MW-109	0.006719	0.004895	0.04	n/a	No	13	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	MW-110	0.01016	0.007008	0.04	n/a	No	13	0	No	0.01	Param.
Mercury (mg/L)	MW-102	0.0002	0.000094	0.002	n/a	No	13	84.62	No	0.01	NP (NDs)
Mercury (mg/L)	MW-103	0.0002	0.00012	0.002	n/a	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	MW-104	0.001556	0.000747	0.002	n/a	No	13	0	No	0.01	Param.
Mercury (mg/L)	MW-105	0.0002	0.0002	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-106	0.0002	0.00008	0.002	n/a	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	MW-109	0.0002	0.000097	0.002	n/a	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	**MW-110**	**0.006307**	**0.00333**	**0.002**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	MW-102	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-103	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-104	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-105	0.0054	0.0033	0.1	n/a	No	13	0	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-106	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-109	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-110	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-102	0.0013	0.00029	0.05	n/a	No	13	76.92	No	0.01	NP (NDs)
Selenium (mg/L)	MW-103	0.003096	0.002042	0.05	n/a	No	13	7.692	No	0.01	Param.
Selenium (mg/L)	MW-104	0.0137	0.00453	0.05	n/a	No	13	0	No	0.01	Param.
Selenium (mg/L)	MW-105	0.0013	0.0003	0.05	n/a	No	13	61.54	No	0.01	NP (normality)
Selenium (mg/L)	MW-106	0.0013	0.0013	0.05	n/a	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-109	0.0013	0.0013	0.05	n/a	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-110	0.003613	0.00311	0.05	n/a	No	13	0	No	0.01	Param.
Thallium (mg/L)	MW-102	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-103	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-104	0.0003467	0.0002179	0.002	n/a	No	13	0	No	0.01	Param.
Thallium (mg/L)	MW-105	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-106	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-109	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-110	0.0002885	0.0002238	0.002	n/a	No	13	0	No	0.01	Param.

Confidence Interval Summary Table - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	**MW-200**	**18.76**	**9.79**	**5**	**Yes**	**13**	**14.52**	**6.251**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-201**	**24.6**	**5.89**	**5**	**Yes**	**13**	**14.64**	**8.463**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-206**	**33**	**16.21**	**5**	**Yes**	**13**	**24.61**	**11.29**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 200 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	MW-200	0.0025	0.0025	0.006	No	12	0.0025	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	MW-201	0.0025	0.001	0.006	No	12	0.00225	0.0005839	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	MW-206	0.0025	0.0011	0.006	No	12	0.002383	0.0004041	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-200	0.003445	0.0008918	0.01	No	13	0.002308	0.001878	7.692	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	MW-201	0.0093	0.00063	0.01	No	13	0.003346	0.00337	23.08	None	No	0.01	NP (normality)
Arsenic (mg/L)	MW-206	0.01305	0.00329	0.01	No	13	0.008168	0.00656	0	None	No	0.01	Param.
Barium (mg/L)	MW-200	0.06996	0.04573	2	No	13	0.05785	0.01629	0	None	No	0.01	Param.
Barium (mg/L)	MW-201	0.07405	0.03826	2	No	13	0.05615	0.02407	0	None	No	0.01	Param.
Barium (mg/L)	MW-206	0.1186	0.07278	2	No	13	0.09569	0.03081	0	None	No	0.01	Param.
Beryllium (mg/L)	MW-200	0.0025	0.0025	0.004	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-201	0.0025	0.0025	0.004	No	13	0.0025	0	100	None	No	0.01	NP (NDs)
Beryllium (mg/L)	MW-206	0.0025	0.00048	0.004	No	13	0.002035	0.0008848	76.92	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-200	0.0025	0.00039	0.005	No	12	0.002324	0.0006091	91.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-201	0.015	0.0021	0.005	No	12	0.008	0.005754	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	MW-206	0.002809	0.001326	0.005	No	13	0.002068	0.0009975	0	None	No	0.01	Param.
Chromium (mg/L)	MW-200	0.0025	0.0025	0.1	No	11	0.0025	0	100	None	No	0.006	NP (NDs)
Chromium (mg/L)	MW-201	0.0025	0.0025	0.1	No	11	0.0025	0	100	None	No	0.006	NP (NDs)
Chromium (mg/L)	MW-206	0.0025	0.0025	0.1	No	11	0.002509	0.00003015	90.91	None	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-200	0.0028	0.0011	0.006	No	13	0.002382	0.001927	15.38	None	No	0.01	NP (Cohens/xfrm)
Cobalt (mg/L)	MW-201	0.003372	0.001631	0.006	No	13	0.002554	0.001319	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	MW-206	0.00529	0.002741	0.006	No	13	0.004015	0.001714	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	**MW-200**	**18.76**	**9.79**	**5**	**Yes**	**13**	**14.52**	**6.251**	**0**	**None**	**sqrt(x)**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	**MW-201**	**24.6**	**5.89**	**5**	**Yes**	**13**	**14.64**	**8.463**	**0**	**None**	**No**	**0.01**	**NP (normality)**
Combined Radium 226 + 228 (pCi/L)	**MW-206**	**33**	**16.21**	**5**	**Yes**	**13**	**24.61**	**11.29**	**0**	**None**	**No**	**0.01**	**Param.**
Fluoride (mg/L)	MW-200	0.1	0.05	4	No	14	0.08629	0.06581	14.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	MW-201	0.8069	0.4945	4	No	15	0.6507	0.2305	0	None	No	0.01	Param.
Fluoride (mg/L)	MW-206	0.08987	0.05333	4	No	15	0.0716	0.02696	0	None	No	0.01	Param.
Lead (mg/L)	MW-200	0.001549	0.0008616	0.015	No	13	0.001205	0.0004623	15.38	None	No	0.01	Param.
Lead (mg/L)	MW-201	0.0013	0.00065	0.015	No	13	0.001178	0.0003021	84.62	None	No	0.01	NP (NDs)
Lead (mg/L)	MW-206	0.009429	0.004079	0.015	No	13	0.006754	0.003597	0	None	No	0.01	Param.
Lithium (mg/L)	MW-200	0.01	0.0024	0.04	No	13	0.0047	0.002067	69.23	None	No	0.01	NP (normality)
Lithium (mg/L)	MW-201	0.0078	0.0043	0.04	No	12	0.005592	0.001464	16.67	None	No	0.01	NP (Cohens/xfrm)
Lithium (mg/L)	MW-206	0.005	0.0014	0.04	No	13	0.004431	0.00139	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	MW-200	0.002536	0.001373	0.002	No	13	0.001955	0.0007824	0	None	No	0.01	Param.
Mercury (mg/L)	MW-201	0.0026	0.00016	0.002	No	13	0.00159	0.001039	0	None	No	0.01	NP (normality)
Mercury (mg/L)	MW-206	0.0006128	0.0001765	0.002	No	13	0.0003946	0.0002934	7.692	None	No	0.01	Param.
Molybdenum (mg/L)	MW-200	0.015	0.0078	0.1	No	12	0.0144	0.002078	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-201	0.015	0.0015	0.1	No	12	0.01387	0.003897	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-206	0.015	0.00092	0.1	No	12	0.01383	0.004065	91.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	MW-200	0.01476	0.006622	0.05	No	13	0.01069	0.005475	0	None	No	0.01	Param.
Selenium (mg/L)	MW-201	0.01402	0.005415	0.05	No	13	0.009715	0.005784	0	None	No	0.01	Param.
Selenium (mg/L)	MW-206	0.01998	0.01432	0.05	No	13	0.01715	0.003805	0	None	No	0.01	Param.
Thallium (mg/L)	MW-200	0.0005202	0.0002195	0.002	No	13	0.0002838	0.000139	23.08	Cohen`s	No	0.01	Param.
Thallium (mg/L)	MW-201	0.00047	0.0002269	0.002	No	13	0.0003485	0.0001635	0	None	No	0.01	Param.
Thallium (mg/L)	MW-206	0.0008772	0.000452	0.002	No	13	0.0006646	0.0002859	0	None	No	0.01	Param.

Confidence Interval Summary Table - 300 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 10/14/2019, 4:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	**MW-303**	**1.819**	**0.9488**	**0.1**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**

Confidence Interval Summary Table - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 10/14/2019, 4:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	MW-300	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-303	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-304	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-305	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	MW-308	0.0025	0.0025	0.006	n/a	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	MW-300	0.0013	0.0013	0.01	n/a	No	12	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-303	0.001676	0.0008936	0.01	n/a	No	12	41.67	No	0.01	Param.
Arsenic (mg/L)	MW-304	0.0051	0.0005	0.01	n/a	No	9	11.11	No	0.002	NP (normality)
Arsenic (mg/L)	MW-305	0.0013	0.0013	0.01	n/a	No	12	100	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-308	0.0013	0.0013	0.01	n/a	No	12	100	No	0.01	NP (NDs)
Barium (mg/L)	MW-300	0.01194	0.01067	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-303	0.03892	0.02637	2	n/a	No	13	0	sqrt(x)	0.01	Param.
Barium (mg/L)	MW-304	0.04425	0.02806	2	n/a	No	13	0	No	0.01	Param.
Barium (mg/L)	MW-305	0.02	0.016	2	n/a	No	13	0	No	0.01	NP (normality)
Barium (mg/L)	MW-308	0.02854	0.02208	2	n/a	No	13	0	No	0.01	Param.
Beryllium (mg/L)	MW-300	0.0025	0.0025	0.004	n/a	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-303	0.0025	0.0025	0.004	n/a	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-304	0.0025	0.0025	0.004	n/a	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-305	0.0025	0.0025	0.004	n/a	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	MW-308	0.0025	0.0025	0.004	n/a	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	MW-300	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-303	0.00072	0.00036	0.005	n/a	No	13	15.38	No	0.01	NP (normality)
Cadmium (mg/L)	MW-304	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-305	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	MW-308	0.0025	0.0025	0.005	n/a	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	MW-300	0.0025	0.0025	0.1	n/a	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-303	0.0025	0.0025	0.1	n/a	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	MW-304	0.0025	0.0025	0.1	n/a	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-305	0.0025	0.0025	0.1	n/a	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	MW-308	0.0025	0.0025	0.1	n/a	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	MW-300	0.0025	0.00093	0.006	n/a	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	MW-303	0.0025	0.00051	0.006	n/a	No	13	38.46	No	0.01	NP (normality)
Cobalt (mg/L)	MW-304	0.04157	0.004278	0.006	n/a	No	8	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	MW-305	0.0025	0.00042	0.006	n/a	No	13	30.77	No	0.01	NP (normality)
Cobalt (mg/L)	MW-308	0.0025	0.00063	0.006	n/a	No	13	84.62	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	MW-300	5.681	4.668	5	n/a	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-303	6.34	4.33	5	n/a	No	13	0	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	MW-304	7.597	3.691	5	n/a	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-305	1.632	1.22	5	n/a	No	13	0	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-308	3.189	2.374	5	n/a	No	13	0	No	0.01	Param.
Fluoride (mg/L)	MW-300	0.1	0.041	4	n/a	No	14	92.86	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-303	0.2562	0.1558	4	n/a	No	15	0	No	0.01	Param.
Fluoride (mg/L)	MW-304	0.1255	0.07166	4	n/a	No	14	42.86	No	0.01	Param.
Fluoride (mg/L)	MW-305	0.1	0.035	4	n/a	No	14	92.86	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-308	0.1323	0.07167	4	n/a	No	15	0	No	0.01	Param.
Lead (mg/L)	MW-300	0.0013	0.0013	0.015	n/a	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-303	0.0013	0.0013	0.015	n/a	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-304	0.0013	0.00047	0.015	n/a	No	11	54.55	No	0.006	NP (normality)
Lead (mg/L)	MW-305	0.0013	0.0013	0.015	n/a	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	MW-308	0.0013	0.0013	0.015	n/a	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	MW-300	0.005	0.0014	0.04	n/a	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	MW-303	0.02921	0.02263	0.04	n/a	No	13	0	No	0.01	Param.
Lithium (mg/L)	MW-304	0.005	0.0023	0.04	n/a	No	13	76.92	No	0.01	NP (NDs)
Lithium (mg/L)	MW-305	0.005	0.0014	0.04	n/a	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	MW-308	0.005	0.0021	0.04	n/a	No	13	76.92	No	0.01	NP (NDs)

Confidence Interval Summary Table - 300 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 10/14/2019, 4:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Lower Compl.	Sig.	N	%NDs	Transform	Alpha	Method
Mercury (mg/L)	MW-300	0.0002	0.0002	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-303	0.0002	0.0002	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-304	0.00065	0.0002	0.002	n/a	No	13	23.08	No	0.01	NP (Cohens/xfrm)
Mercury (mg/L)	MW-305	0.0002	0.0002	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	MW-308	0.0002	0.0002	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-300	0.015	0.015	0.1	n/a	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	**MW-303**	**1.819**	**0.9488**	**0.1**	**n/a**	**Yes**	**13**	**0**	**No**	**0.01**	**Param.**
Molybdenum (mg/L)	MW-304	0.015	0.0028	0.1	n/a	No	13	53.85	No	0.01	NP (normality)
Molybdenum (mg/L)	MW-305	0.015	0.0016	0.1	n/a	No	13	92.31	No	0.01	NP (NDs)
Molybdenum (mg/L)	MW-308	0.015	0.00098	0.1	n/a	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	MW-300	0.0013	0.0013	0.05	n/a	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-303	0.006683	0.003871	0.05	n/a	No	13	0	No	0.01	Param.
Selenium (mg/L)	MW-304	0.006779	0.003521	0.05	n/a	No	12	0	No	0.01	Param.
Selenium (mg/L)	MW-305	0.0013	0.0013	0.05	n/a	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	MW-308	0.006231	0.004061	0.05	n/a	No	13	0	No	0.01	Param.
Thallium (mg/L)	MW-300	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-303	0.00024	0.00016	0.002	n/a	No	13	7.692	No	0.01	NP (normality)
Thallium (mg/L)	MW-304	0.00022	0.0001	0.002	n/a	No	13	15.38	No	0.01	NP (Cohens/xfrm)
Thallium (mg/L)	MW-305	0.0005	0.0005	0.002	n/a	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	MW-308	0.0003474	0.0002434	0.002	n/a	No	13	7.692	sqrt(x)	0.01	Param.

Trend Test Summary Table - Upgradient Wells Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 11:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-307 (bg)**	**-0.2262**	**-53**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Field pH (SU)	**MW-307 (bg)**	**-0.2478**	**-50**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Test Summary Table - Upgradient Wells All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 11:29 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	MW-100 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-101 (bg)	0	10	43	No	13	92.31	n/a	n/a	0.01	NP
Boron (mg/L)	MW-107 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-108 (bg)	0	-3	-43	No	13	84.62	n/a	n/a	0.01	NP
Boron (mg/L)	MW-306 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Boron (mg/L)	MW-307 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-100 (bg)	0.06863	29	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-101 (bg)	-0.03756	-27	-43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-107 (bg)	-0.02321	-14	-43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-108 (bg)	0.07098	25	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-306 (bg)	0.01236	14	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-307 (bg)**	**-0.2262**	**-53**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	MW-100 (bg)	0.1622	24	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-101 (bg)	0.1283	14	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-107 (bg)	-0.2529	-22	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-108 (bg)	-0.2209	-23	-43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-306 (bg)	0.1569	16	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-307 (bg)	0.02032	10	43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-100 (bg)	-0.08421	-18	-43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-101 (bg)	-0.1591	-24	-43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-107 (bg)	-0.08795	-17	-43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-108 (bg)	-0.1001	-18	-43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	MW-306 (bg)	-0.09001	-27	-43	No	13	0	n/a	n/a	0.01	NP
Field pH (SU)	**MW-307 (bg)**	**-0.2478**	**-50**	**-43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Fluoride (mg/L)	MW-100 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-101 (bg)	0	6	43	No	13	92.31	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-107 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-108 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-306 (bg)	0	0	43	No	13	100	n/a	n/a	0.01	NP
Fluoride (mg/L)	MW-307 (bg)	0	12	43	No	13	92.31	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-100 (bg)	0	1	38	No	12	91.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-101 (bg)	0	-19	-43	No	13	84.62	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-107 (bg)	0	2	43	No	13	92.31	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-108 (bg)	0.33	35	43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-306 (bg)	0	-4	-43	No	13	92.31	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-307 (bg)	0	1	43	No	13	84.62	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-100 (bg)	3.074	12	43	No	13	23.08	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-101 (bg)	1.132	9	43	No	13	15.38	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-107 (bg)	0	12	43	No	13	53.85	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-108 (bg)	0	6	43	No	13	30.77	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-306 (bg)	3.558	23	43	No	13	38.46	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-307 (bg)	2.029	6	43	No	13	23.08	n/a	n/a	0.01	NP

Tolerance Limit Summary Table - Appendix IV

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 9:09 AM

Constituent	Well	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0025	72	n/a	n/a	100	n/a	n/a	0.02489	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0013	78	n/a	n/a	89.74	n/a	n/a	0.0183	NP Inter(NDs)
Barium (mg/L)	n/a	0.01923	78	0.1132	0.01296	0	None	sqrt(x)	0.05	Inter
Beryllium (mg/L)	n/a	0.0025	78	n/a	n/a	100	n/a	n/a	0.0183	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	78	n/a	n/a	100	n/a	n/a	0.0183	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0059	77	n/a	n/a	89.61	n/a	n/a	0.01926	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0032	78	n/a	n/a	37.18	n/a	n/a	0.0183	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	2.442	78	0.02267	0.4425	3.846	None	ln(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.12	84	n/a	n/a	97.62	n/a	n/a	0.01345	NP Inter(NDs)
Lead (mg/L)	n/a	0.0013	78	n/a	n/a	98.72	n/a	n/a	0.0183	NP Inter(NDs)
Lithium (mg/L)	n/a	0.005	77	n/a	n/a	77.92	n/a	n/a	0.01926	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	78	n/a	n/a	96.15	n/a	n/a	0.0183	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.015	78	n/a	n/a	96.15	n/a	n/a	0.0183	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0025	78	n/a	n/a	78.21	n/a	n/a	0.0183	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0005	78	n/a	n/a	100	n/a	n/a	0.0183	NP Inter(NDs)

PLANT CRIST GWPS				
Constituent Name	**MCL**	**Rule-Specified**	**Background**	**GWPS**
Antimony, Total (mg/L)	0.006		0.0025	0.006
Arsenic, Total (mg/L)	0.01		0.0013	0.01
Barium, Total (mg/L)	2		0.019	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.0059	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0032	0.006
Combined Radium, Total (pCi/L)	5		2.44	5
Fluoride, Total (mg/L)	4		0.12	4
Lead, Total (mg/L)	0.015		0.0013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.005	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.015	0.1
Selenium, Total (mg/L)	0.05		0.0025	0.05
Thallium, Total (mg/L)	0.002		0.0005	0.002

MCL = Maximum Contaminant Level

GWPS = Groundwater Protection Standard

Prediction Limits - 100, 200 & 300 Series

Interwell Prediction Limit Summary - 100 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:52 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-102	0.081	n/a	6/3/2019	0.17	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-103	0.081	n/a	6/11/2019	0.39	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-104	0.081	n/a	6/3/2019	11	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-105	0.081	n/a	6/3/2019	1.7	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-109	0.081	n/a	6/3/2019	0.45	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-110	0.081	n/a	6/3/2019	3	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-102	1.445	n/a	6/3/2019	2	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-103	1.445	n/a	6/11/2019	3.5	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-104	1.445	n/a	6/3/2019	49	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-105	1.445	n/a	6/3/2019	65	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-109	1.445	n/a	6/3/2019	3.9	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	MW-110	1.445	n/a	6/3/2019	13	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-102	6.741	n/a	6/3/2019	13	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-103	6.741	n/a	6/11/2019	17	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-104	6.741	n/a	6/3/2019	110	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-105	6.741	n/a	6/3/2019	86	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-109	6.741	n/a	6/3/2019	8.5	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	MW-110	6.741	n/a	6/3/2019	79	Yes	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Field pH (SU)	MW-104	7.11	4.5	6/3/2019	4.17	Yes	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-104	0.12	n/a	6/3/2019	0.22	Yes	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-103	5	n/a	6/11/2019	32	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-104	5	n/a	6/3/2019	480	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-105	5	n/a	6/3/2019	58	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-109	5	n/a	6/3/2019	21	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-110	5	n/a	6/3/2019	150	Yes	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-104	110	n/a	6/3/2019	950	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-105	110	n/a	6/3/2019	500	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-110	110	n/a	6/3/2019	420	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - 100 Series All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 9/30/2019, 10:52 AM

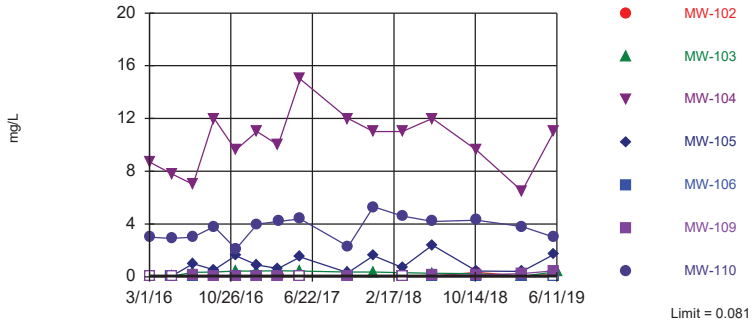
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-102**	**0.081**	**n/a**	**6/3/2019**	**0.17**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-103**	**0.081**	**n/a**	**6/11/2019**	**0.39**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-104**	**0.081**	**n/a**	**6/3/2019**	**11**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-105**	**0.081**	**n/a**	**6/3/2019**	**1.7**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	MW-106	0.081	n/a	6/3/2019	0.05ND	No	84	n/a	n/a	96.43	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	**MW-109**	**0.081**	**n/a**	**6/3/2019**	**0.45**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-110**	**0.081**	**n/a**	**6/3/2019**	**3**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-102**	**1.445**	**n/a**	**6/3/2019**	**2**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-103**	**1.445**	**n/a**	**6/11/2019**	**3.5**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-104**	**1.445**	**n/a**	**6/3/2019**	**49**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-105**	**1.445**	**n/a**	**6/3/2019**	**65**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	MW-106	1.445	n/a	6/3/2019	0.38	No	84	0.8913	0.1266	0	None	x^(1/3)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	**MW-109**	**1.445**	**n/a**	**6/3/2019**	**3.9**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-110**	**1.445**	**n/a**	**6/3/2019**	**13**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-102**	**6.741**	**n/a**	**6/3/2019**	**13**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-103**	**6.741**	**n/a**	**6/11/2019**	**17**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-104**	**6.741**	**n/a**	**6/3/2019**	**110**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-105**	**6.741**	**n/a**	**6/3/2019**	**86**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	MW-106	6.741	n/a	6/3/2019	3.3	No	84	5.139	0.8471	0	None	No	0.001075	Param Inter 1 of 2
Chloride (mg/L)	**MW-109**	**6.741**	**n/a**	**6/3/2019**	**8.5**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-110**	**6.741**	**n/a**	**6/3/2019**	**79**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.001075**	**Param Inter 1 of 2**
Field pH (SU)	MW-102	7.11	4.5	6/3/2019	4.7	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-103	7.11	4.5	6/11/2019	4.97	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	**MW-104**	**7.11**	**4.5**	**6/3/2019**	**4.17**	**Yes**	**84**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005477**	**NP Inter (normality) 1 of 2**
Field pH (SU)	MW-105	7.11	4.5	6/3/2019	6.23	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-106	7.11	4.5	6/3/2019	5.12	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-109	7.11	4.5	6/3/2019	4.75	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Field pH (SU)	MW-110	7.11	4.5	6/3/2019	5.56	No	84	n/a	n/a	0	n/a	n/a	0.0005477	NP Inter (normality) 1 of 2
Fluoride (mg/L)	MW-102	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-103	0.12	n/a	6/11/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-104**	**0.12**	**n/a**	**6/3/2019**	**0.22**	**Yes**	**84**	**n/a**	**n/a**	**97.62**	**n/a**	**n/a**	**0.0002738**	**NP Inter (NDs) 1 of 2**
Fluoride (mg/L)	MW-105	0.12	n/a	6/3/2019	0.04	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-106	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-109	0.12	n/a	6/3/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-110	0.12	n/a	6/3/2019	0.04	No	84	n/a	n/a	97.62	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-102	5	n/a	6/3/2019	3.5	No	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-103**	**5**	**n/a**	**6/11/2019**	**32**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-104**	**5**	**n/a**	**6/3/2019**	**480**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-105**	**5**	**n/a**	**6/3/2019**	**58**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	MW-106	5	n/a	6/3/2019	5ND	No	83	n/a	n/a	74.7	n/a	n/a	0.00028	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-109**	**5**	**n/a**	**6/3/2019**	**21**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-110**	**5**	**n/a**	**6/3/2019**	**150**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.00028**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	MW-102	110	n/a	6/3/2019	54	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-103	110	n/a	6/11/2019	110	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-104**	**110**	**n/a**	**6/3/2019**	**950**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-105**	**110**	**n/a**	**6/3/2019**	**500**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	MW-106	110	n/a	6/3/2019	28	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-109	110	n/a	6/3/2019	54	No	84	n/a	n/a	29.76	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**MW-110**	**110**	**n/a**	**6/3/2019**	**420**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002738**	**NP Inter (normality) 1 of 2**

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-102, MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 96.43% NDs. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

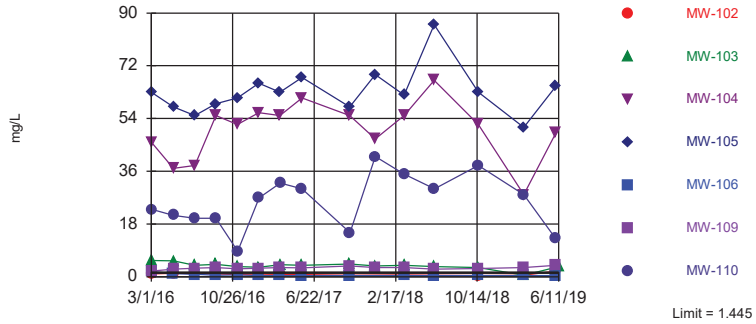
Constituent: Boron Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-102, MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.8913, Std. Dev.=0.1266, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9663, critical = 0.96. Kappa = 1.891 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

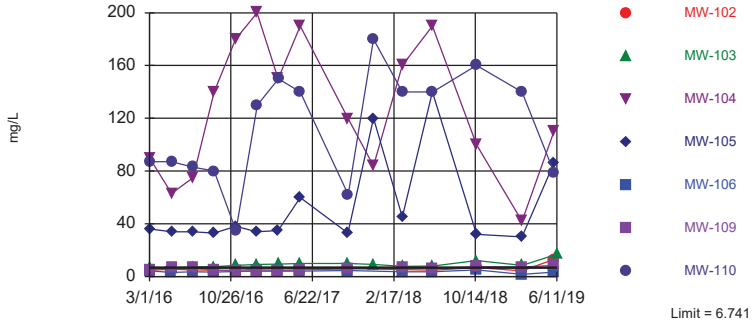
Constituent: Calcium Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-102, MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.139, Std. Dev.=0.8471, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9612, critical = 0.96. Kappa = 1.891 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

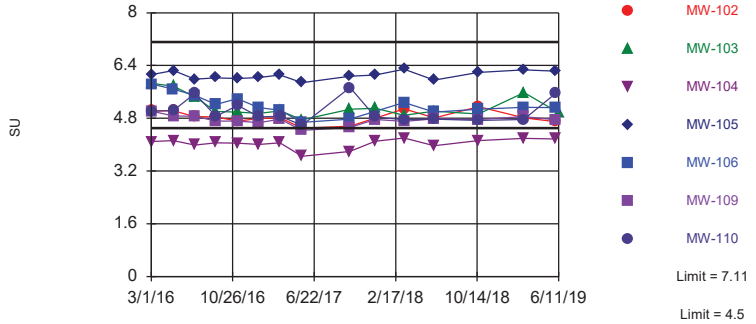
Constituent: Chloride Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits: MW-104

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 84 background values. Annual per-constituent alpha = 0.007654. Individual comparison alpha = 0.0005477 (1 of 2). Comparing 7 points to limit.

Constituent: Field pH Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-106	MW-104	MW-103	MW-306 (bg)	MW-102
2/29/2016	<0.05	<0.05	<0.05	<0.05					
3/1/2016					<0.05	8.7	<0.05 (*)	<0.05	<0.05
3/2/2016									
5/2/2016	<0.05	<0.05	<0.05						
5/3/2016								<0.05	
5/4/2016				<0.05	<0.05 (*)				
5/5/2016						7.8	<0.05 (*)		<0.05
7/5/2016	<0.05	<0.05	<0.05					<0.05	
7/7/2016						7	0.33		<0.05
7/8/2016				<0.05	<0.05				
9/6/2016	<0.05	<0.05	<0.05	<0.05				<0.05	<0.05
9/7/2016					0.022 (J)	12	0.37		
11/7/2016	<0.05	<0.05	<0.05					<0.05	
11/9/2016					<0.05	9.6			
11/10/2016				<0.05			0.43		<0.05
1/9/2017	<0.05	<0.05	<0.05					<0.05	
1/11/2017				<0.05	<0.05	11			
1/12/2017							0.44		<0.05
3/13/2017	<0.05	<0.05	0.022 (J)					<0.05	
3/14/2017				<0.05	0.071	10			
3/15/2017							0.46		<0.05
5/15/2017	<0.05	<0.05	<0.05					<0.05	
5/18/2017				<0.05	<0.05 (*)	15	0.44		<0.05
10/2/2017	<0.05	<0.05	0.023 (J)					<0.05	
10/5/2017				<0.05	<0.05	12			
10/6/2017							0.37		<0.05
12/19/2017						11 (R)	0.35 (R)		
3/12/2018	<0.05	<0.05	<0.05					<0.05	
3/14/2018				<0.05	<0.05	11	0.32		<0.05
6/5/2018	<0.05	<0.05	<0.05						
6/6/2018								<0.05	
6/10/2018				<0.05	0.066	12			
6/11/2018							0.26		<0.05
10/16/2018	<0.05	<0.05	<0.05						
10/17/2018								<0.05	
10/18/2018				0.081	0.067	9.6	0.25		
10/19/2018									0.34
2/27/2019	<0.05	<0.05	<0.05	<0.05				<0.05	
3/1/2019					0.048 (J)	6.5			
3/2/2019							<0.05		<0.05
5/31/2019	<0.05	<0.05	<0.05	<0.05				<0.05	
6/3/2019					<0.05	11			0.17
6/11/2019							0.39		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-110	MW-109
2/29/2016				
3/1/2016	<0.05	<0.05 (*)		
3/2/2016			3	<0.05 (*)
5/2/2016	<0.05			
5/3/2016				
5/4/2016				
5/5/2016		<0.05 (*)	2.9	<0.05 (*)
7/5/2016	<0.05			
7/7/2016		1	3	0.1
7/8/2016				
9/6/2016	<0.05			
9/7/2016		0.53	3.8	0.073
11/7/2016	<0.05			
11/9/2016		1.6		
11/10/2016			2.1	0.073
1/9/2017	<0.05			
1/11/2017		0.9		
1/12/2017			4	0.059
3/13/2017	<0.05			
3/14/2017		0.63		0.044 (J)
3/15/2017			4.2	
5/15/2017	<0.05			
5/18/2017		1.5	4.4	<0.05 (*)
10/2/2017	<0.05			
10/5/2017		0.32		0.047 (J)
10/6/2017			2.3	
12/19/2017		1.6 (R)	5.3 (R)	
3/12/2018	<0.05			
3/14/2018		0.7	4.6	<0.05
6/5/2018				
6/6/2018	<0.05			
6/10/2018		2.4		
6/11/2018			4.2	0.11
10/16/2018				
10/17/2018	<0.05			
10/18/2018		0.43	4.3	0.15
10/19/2018				
2/27/2019	<0.05			
3/1/2019		0.4	3.8	0.23
3/2/2019				
5/31/2019	<0.05			
6/3/2019		1.7	3	0.45
6/11/2019				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	1	0.67	1.4	1 (J)					
3/1/2016					63	46	0.6	5.6	1.5
3/2/2016									
5/2/2016	0.78	0.58	1.1						0.83
5/3/2016							0.55		
5/4/2016				0.62					
5/5/2016					58	37		5.4	
7/5/2016	0.65	0.43	0.94				0.53		1.6
7/7/2016					55	38		3.9	
7/8/2016				0.4					
9/6/2016	0.7	0.48	1	0.45			0.5		1.6
9/7/2016					59	55		4.2	
11/7/2016	0.8	0.56	1.2				0.68		1.5
11/9/2016					61	52			
11/10/2016				0.44				3.5	
1/9/2017	0.74	0.43	1.2				0.56		0.98
1/11/2017				0.42	66	56			
1/12/2017								3.3	
3/13/2017	0.78	0.48	1.3				0.62		0.75
3/14/2017				0.42	63	55			
3/15/2017								4.1	
5/15/2017	0.76	0.37	1				0.58		0.83
5/18/2017				0.38	68	61		3.9	
10/2/2017	0.78	0.47	1.2				0.62		0.83
10/5/2017				0.39	58	55			
10/6/2017								4.3	
12/19/2017					69 (R)	47 (R)		3.7 (R)	
3/12/2018	0.88	0.49	1.4				0.59		0.71
3/14/2018				0.49	62	55		3.9	
6/5/2018	0.9	0.49	1.2						
6/6/2018							0.59		0.68
6/10/2018				0.39	86	67			
6/11/2018								3.5	
10/16/2018	0.86	0.42	1.4						
10/17/2018							0.54		0.66
10/18/2018				0.41	63	52		3.1	
10/19/2018									
2/27/2019	0.96	0.56	1.3	0.44			0.63		0.7
3/1/2019					51	28			
3/2/2019								0.56	
5/31/2019	0.76	0.33	1.1	0.28			0.45		0.52
6/3/2019					65	49			
6/11/2019								3.5	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	0.99 (J)	1.8		
3/2/2016			23	2
5/2/2016				
5/3/2016				
5/4/2016		1.1		
5/5/2016	1.2		21	2.6
7/5/2016				
7/7/2016	1.1		20	2.9
7/8/2016		0.82		
9/6/2016	1			
9/7/2016		0.57	20	3.1
11/7/2016				
11/9/2016		0.62		
11/10/2016	0.73		8.7	2.7
1/9/2017				
1/11/2017		0.44		
1/12/2017	0.63		27	2.9
3/13/2017				
3/14/2017		0.46		3.1
3/15/2017	0.72		32	
5/15/2017				
5/18/2017	0.71	0.41	30	3
10/2/2017				
10/5/2017		0.39		3.7
10/6/2017	0.56		15	
12/19/2017			41 (R)	3.1 (R)
3/12/2018				
3/14/2018	0.63	0.47	35	3.1
6/5/2018				
6/6/2018				
6/10/2018		0.39		
6/11/2018	0.55		30	2.6
10/16/2018				
10/17/2018				
10/18/2018		0.47	38	2.8
10/19/2018	0.37			
2/27/2019				
3/1/2019		0.46	28	3.1
3/2/2019	0.57			
5/31/2019				
6/3/2019	2	0.38	13	3.9
6/11/2019				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-106	MW-104	MW-103	MW-306 (bg)	MW-102
2/29/2016	5.3	8.1	7.4	5.4					
3/1/2016					4.4	90	6.6	5.6	4.8
3/2/2016									
5/2/2016	4.4	6	6.3						
5/3/2016								5.1	
5/4/2016				4.5	3				
5/5/2016						63	6.5		5.6
7/5/2016	4.2	5.2	4.8					4.7	
7/7/2016						75	7.3		5
7/8/2016				4.9	3.5				
9/6/2016	4.3	5.5	6	4.3				4.4	4.8
9/7/2016					3.3	140	7.4		
11/7/2016	4.2	5.4	5.7					4.6	
11/9/2016					3.9	180			
11/10/2016				4.5			8.4		4.7
1/9/2017	5.3	6.1	6.8					5.3	
1/11/2017				5.3	4.1	200			
1/12/2017							9.2		5.6
3/13/2017	5.2	5.5	6.8					5.6	
3/14/2017				5.5	4	150			
3/15/2017							9.5		5.9
5/15/2017	4.8	4.7	6.1					5.2	
5/18/2017				5	4	190	9.9		5.7
10/2/2017	5.5	6.1	6					5.5	
10/5/2017				5.6	4.5	120			
10/6/2017							10		6
12/19/2017						84 (R)	9.3 (R)		
3/12/2018	5.3	6.1	5.9					5.6	
3/14/2018				5.2	3.7	160	7.7		5.2
6/5/2018	5.3	5.5	6.5						
6/6/2018								5.6	
6/10/2018				5.2	3.6	190			
6/11/2018							8		4.9
10/16/2018	5.5	5.1	5.9						
10/17/2018								5.5	
10/18/2018				5.2	5	100	12		
10/19/2018									6.7
2/27/2019	4.6	5	4.3	5.1				5.1	
3/1/2019					1.7 (J)	42			
3/2/2019							8.5		4.4
5/31/2019	5.1	5.4	4.5	5				5.4	
6/3/2019					3.3	110			13
6/11/2019							17		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-110	MW-109
2/29/2016				
3/1/2016	4	36		
3/2/2016			87	5
5/2/2016	3.6			
5/3/2016				
5/4/2016				
5/5/2016		34	87	6.8
7/5/2016	3.6			
7/7/2016		34	83	6.7
7/8/2016				
9/6/2016	4			
9/7/2016		33	80	4.8
11/7/2016	4.4			
11/9/2016		38		
11/10/2016			35	4.2
1/9/2017	4.4			
1/11/2017		34		
1/12/2017			130	4.4
3/13/2017	4.1			
3/14/2017		35		4.4
3/15/2017			150	
5/15/2017	3.7			
5/18/2017		60	140	5
10/2/2017	4.8			
10/5/2017		33		5.8
10/6/2017			62	
12/19/2017		120 (R)	180 (R)	
3/12/2018	4			
3/14/2018		45	140	6.9
6/5/2018				
6/6/2018	4.1			
6/10/2018		140		
6/11/2018			140	6
10/16/2018				
10/17/2018	3.7			
10/18/2018		32	160	7.5
10/19/2018				
2/27/2019	4			
3/1/2019		30	140	7.2
3/2/2019				
5/31/2019	3.7			
6/3/2019		86	79	8.5
6/11/2019				

Prediction Limit

Constituent: Field pH (SU) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	5.11	5.11	4.9	5.26					
3/1/2016					6.12	4.09	5.08	5.86	6.37
3/2/2016									
5/2/2016	4.76	4.77	4.69						5.605 (D)
5/3/2016							5.14		
5/4/2016				5.1					
5/5/2016					6.25	4.12		5.77	
7/5/2016	5.12	5.48	7.11				5.38		6.29
7/7/2016					5.99	3.99		5.45	
7/8/2016				4.96					
9/6/2016	5.11	5.12	5.19	5.43			5.37		6.42
9/7/2016					6.03	4.06		5.01	
11/7/2016	4.76	4.73	4.64				4.92		5.75
11/9/2016					6.01	4.05			
11/10/2016				4.89				4.99	
1/9/2017	4.99	5	4.94				5.05		5.98
1/11/2017				4.87	6.04	4.01			
1/12/2017								4.95	
3/13/2017	4.57	4.74	4.63				4.87		5.81
3/14/2017				4.71	6.11	4.06			
3/15/2017								5.03	
5/15/2017	4.6	4.63	4.52				4.69		5.42
5/18/2017				4.5	5.88	3.65		4.75	
10/2/2017	4.64	4.63	4.54				4.88		5.63
10/5/2017				4.63	6.07	3.79			
10/6/2017								5.07	
12/19/2017					6.11 (R)	4.1 (R)		5.1 (R)	
3/12/2018	4.85	4.81	4.81				5.07		5.6
3/14/2018				5.14	6.29	4.2		4.89	
6/5/2018	4.92	5.04	4.9						
6/6/2018							5.09		5.58
6/10/2018				5.12	5.96	3.97			
6/11/2018								5.02	
10/16/2018	4.93	4.98	4.81						
10/17/2018							4.99		5.54
10/18/2018				4.97	6.19	4.12		4.93	
10/19/2018									
2/27/2019	4.75	4.78	4.71	4.84			4.87		5.4
3/1/2019					6.27	4.19			
3/2/2019								5.58	
5/31/2019	4.9	4.92	4.84	4.92			4.89		5.45
6/3/2019					6.23	4.17			
6/11/2019								4.97	

Prediction Limit

Constituent: Field pH (SU) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

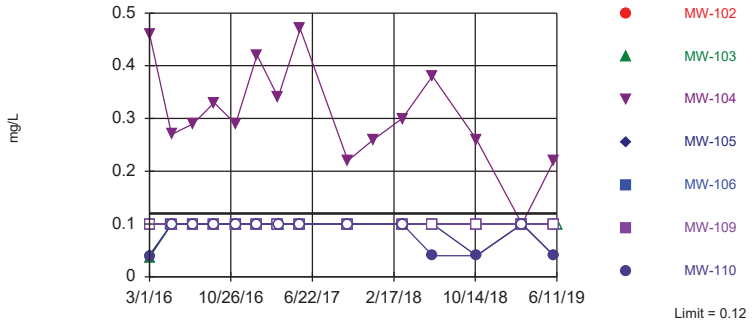
	MW-102	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	5.03	5.84		
3/2/2016			5.015 (D)	5.015 (D)
5/2/2016				
5/3/2016				
5/4/2016		5.69		
5/5/2016	5.03		5.04	4.87
7/5/2016				
7/7/2016	4.85		5.55	4.86
7/8/2016		5.49		
9/6/2016	4.84			
9/7/2016		5.22	4.86	4.72
11/7/2016				
11/9/2016		5.39		
11/10/2016	4.72		5.19	4.72
1/9/2017				
1/11/2017		5.12		
1/12/2017	4.79		4.84	4.67
3/13/2017				
3/14/2017		5.05		4.77
3/15/2017	4.81		4.86	
5/15/2017				
5/18/2017	4.5	4.68	4.59	4.43
10/2/2017				
10/5/2017		4.77		4.52
10/6/2017	4.56		5.73	
12/19/2017			4.84 (R)	4.76 (R)
3/12/2018				
3/14/2018	5.08	5.28	4.75	4.71
6/5/2018				
6/6/2018				
6/10/2018		4.99		
6/11/2018	4.81		4.77	4.78
10/16/2018				
10/17/2018				
10/18/2018		5.07	4.73	4.76
10/19/2018	5.15			
2/27/2019				
3/1/2019		5.13	4.76	4.85
3/2/2019	4.81			
5/31/2019				
6/3/2019	4.7	5.12	5.56	4.75
6/11/2019				

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-104

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 97.62% NDs. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

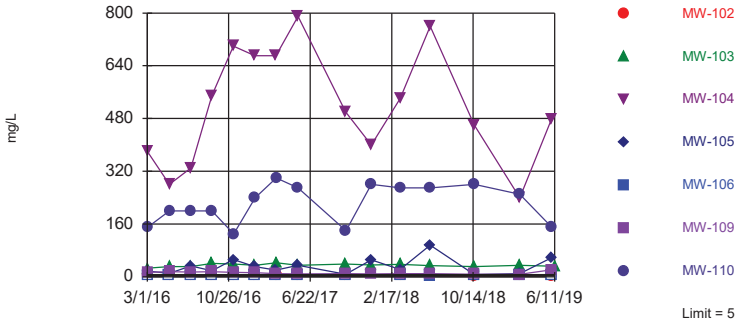
Constituent: Fluoride Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-103, MW-104, MW-105, MW-109, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 83 background values. 74.7% NDs. Annual per-constituent alpha = 0.003912. Individual comparison alpha = 0.00028 (1 of 2). Comparing 7 points to limit.

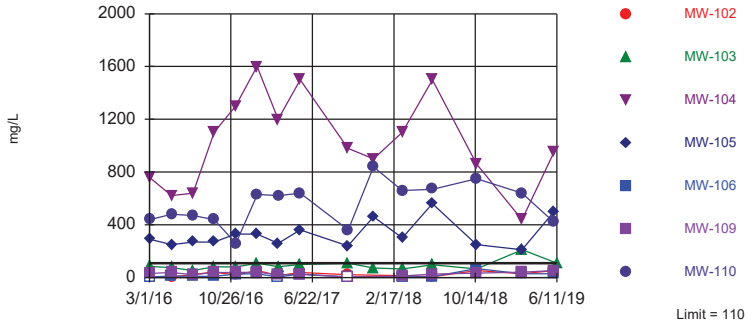
Constituent: Sulfate Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-104, MW-105, MW-110

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 29.76% NDs. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 9/30/2019 10:49 AM View: PL's Interwell 100 Series
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-103	MW-307 (bg)
2/29/2016	<0.1	<0.1	<0.1	<0.1					
3/1/2016					0.041 (J)	0.46	<0.1	0.037 (J)	0.033 (J)
3/2/2016									
5/2/2016	<0.1	<0.1	<0.1						<0.1
5/3/2016							<0.1		
5/4/2016				<0.1					
5/5/2016					<0.1	0.27		<0.1	
7/5/2016	<0.1	<0.1	<0.1				<0.1		<0.1
7/7/2016					<0.1	0.29		<0.1	
7/8/2016				<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1			<0.1		<0.1
9/7/2016					<0.1	0.33		<0.1	
11/7/2016	<0.1	<0.1	<0.1				<0.1		<0.1
11/9/2016					<0.1	0.29			
11/10/2016				<0.1				<0.1	
1/9/2017	<0.1	<0.1	<0.1				<0.1		<0.1
1/11/2017				<0.1	<0.1	0.42			
1/12/2017								<0.1	
3/13/2017	<0.1	<0.1	<0.1				<0.1		<0.1
3/14/2017				<0.1	<0.1	0.34			
3/15/2017								<0.1	
5/15/2017	<0.1	<0.1	<0.1				<0.1		<0.1
5/18/2017				<0.1	<0.1	0.47		<0.1	
10/2/2017	<0.1	<0.1	<0.1				<0.1		<0.1
10/5/2017				<0.1	<0.1	0.22			
10/6/2017								<0.1	
12/19/2017						0.26 (R)			
3/12/2018	<0.1	<0.1	<0.1				<0.1		<0.1
3/14/2018				0.12	<0.1	0.3		<0.1	
6/5/2018	<0.1	<0.1	<0.1						
6/6/2018							<0.1		<0.1
6/10/2018				<0.1	<0.1	0.38			
6/11/2018								<0.1	
10/16/2018	<0.1	<0.1	<0.1						
10/17/2018							<0.1		<0.1
10/18/2018				<0.1	0.04 (J)	0.26		<0.1	
10/19/2018									
2/27/2019	<0.1	<0.1	<0.1	<0.1			<0.1		<0.1
3/1/2019					<0.1	0.1			
3/2/2019								<0.1	
5/31/2019	<0.1	<0.1	<0.1	<0.1			<0.1		<0.1
6/3/2019					0.04 (J)	0.22			
6/11/2019								<0.1	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-102	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	<0.1	<0.1		
3/2/2016			0.039 (J)	<0.1
5/2/2016				
5/3/2016				
5/4/2016		<0.1		
5/5/2016	<0.1		<0.1	<0.1
7/5/2016				
7/7/2016	<0.1		<0.1	<0.1
7/8/2016		<0.1		
9/6/2016	<0.1			
9/7/2016		<0.1	<0.1	<0.1
11/7/2016				
11/9/2016		<0.1		
11/10/2016	<0.1		<0.1	<0.1
1/9/2017				
1/11/2017		<0.1		
1/12/2017	<0.1		<0.1	<0.1
3/13/2017				
3/14/2017		<0.1		<0.1
3/15/2017	<0.1		<0.1	
5/15/2017				
5/18/2017	<0.1	<0.1	<0.1	<0.1
10/2/2017				
10/5/2017		<0.1		<0.1
10/6/2017	<0.1		<0.1	
12/19/2017				
3/12/2018				
3/14/2018	<0.1	<0.1	<0.1	<0.1
6/5/2018				
6/6/2018				
6/10/2018		<0.1		
6/11/2018	<0.1		0.04 (J)	<0.1
10/16/2018				
10/17/2018				
10/18/2018		<0.1	0.04 (J)	<0.1
10/19/2018	<0.1			
2/27/2019				
3/1/2019		<0.1	<0.1	<0.1
3/2/2019	<0.1			
5/31/2019				
6/3/2019	<0.1	<0.1	0.04 (J)	<0.1
6/11/2019				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-105	MW-104	MW-306 (bg)	MW-307 (bg)	MW-102
2/29/2016	<5	<5	1.6 (J)	<5					
3/1/2016					17	380	<5	<5	<5
3/2/2016									
5/2/2016	15 (o)	<5	2.1 (J)					<5	
5/3/2016							<5		
5/4/2016				<5					
5/5/2016					11	280			<5
7/5/2016	<5	<5	2 (J)				<5	<5	
7/7/2016					33	330			<5
7/8/2016				<5					
9/6/2016	<5	<5	1.8 (J)	<5			<5	3.7 (J)	<5
9/7/2016					18	550			
11/7/2016	<5	<5	1.7 (J)				<5	<5	
11/9/2016					52	700			
11/10/2016				<5					<5
1/9/2017	<5	2.6 (J)	1.5 (J)				<5	<5	
1/11/2017				<5	31	670			
1/12/2017									<5
3/13/2017	2.5 (J)	<5	2.2 (J)				<5	<5	
3/14/2017				<5	20	670			
3/15/2017									<5 (*)
5/15/2017	<5	<5	1.9 (J)				<5	<5	
5/18/2017				<5 (X)	35	790			<5 (X)
10/2/2017	<5	<5	3.4 (J)				1.5 (J)	1.7 (J)	
10/5/2017				<5	7.7	500			
10/6/2017									<5
12/19/2017					51 (R)	400 (R)			
3/12/2018	<5	<5	2.6 (J)				<5	<5	
3/14/2018				<5	22	540			<5
6/5/2018	<5	<5	2.6 (J)						
6/6/2018							<5	<5	
6/10/2018				1.5 (J)	96	760			
6/11/2018									1.7 (J)
10/16/2018	<5	<5	2.8 (J)						
10/17/2018							<5	<5	
10/18/2018				<5	6.6	460			
10/19/2018									3.4 (J)
2/27/2019	<5	<5	2.4 (J)	1.9 (J)			<5	<5	
3/1/2019					9.6	240			
3/2/2019									<5
5/31/2019	<5	<5	3.3 (J)	<5			<5	<5	
6/3/2019					58	480			3.5 (J)
6/11/2019									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-103	MW-106	MW-110	MW-109
2/29/2016				
3/1/2016	26	<5		
3/2/2016			150	13
5/2/2016				
5/3/2016				
5/4/2016		<5		
5/5/2016	31		200	15
7/5/2016				
7/7/2016	31		200	14
7/8/2016		<5		
9/6/2016				
9/7/2016	41	<5	200	15
11/7/2016				
11/9/2016		<5		
11/10/2016	39		130	13
1/9/2017				
1/11/2017		<5		
1/12/2017	35		240	12
3/13/2017				
3/14/2017		<5		10 (V)
3/15/2017	43		300	
5/15/2017				
5/18/2017	35	<5 (X)	270	8.7
10/2/2017				
10/5/2017		<5		9.8
10/6/2017	39		140	
12/19/2017	36 (R)		280 (R)	8.4 (R)
3/12/2018				
3/14/2018	38	<5	270	9.7
6/5/2018				
6/6/2018				
6/10/2018		1.4 (J)		
6/11/2018	34		270	10
10/16/2018				
10/17/2018				
10/18/2018	31	<5	280	8.1
10/19/2018				
2/27/2019				
3/1/2019		<5	250	7.4
3/2/2019	35			
5/31/2019				
6/3/2019		<5	150	21
6/11/2019	32			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-108 (bg)	MW-101 (bg)	MW-106	MW-104	MW-103	MW-306 (bg)	MW-102
2/29/2016	20	<5	12	20					
3/1/2016					<5	760	84	10	<5
3/2/2016									
5/2/2016	<5	<5	6						
5/3/2016								<5	
5/4/2016				6	12				
5/5/2016						620	76		<5
7/5/2016	12	14	<5					<5	
7/7/2016						640	54		24
7/8/2016				6	10				
9/6/2016	36	30	38	36				36	40
9/7/2016					10	1100	82		
11/7/2016	18	8	<5					<5	
11/9/2016					26	1300			
11/10/2016				16			80		20
1/9/2017	4 (J)	<5	14					<5	
1/11/2017				38	28	1600			
1/12/2017							110		54
3/13/2017	6	<5	8					22	
3/14/2017				<5	<5	1200			
3/15/2017							82		14
5/15/2017	<5	<5	<5					6	
5/18/2017				10	26	1500	100		38
10/2/2017	<5	<5	6					16	
10/5/2017				<5	<5	980			
10/6/2017							110		22
12/19/2017						900 (R)	72 (R)		
3/12/2018	18	14	<5					<5	
3/14/2018				8	<5	1100	66		14
6/5/2018	10	<5	14						
6/6/2018								20	
6/10/2018				8	6	1500			
6/11/2018							96		8
10/16/2018	32	12	6						
10/17/2018								44	
10/18/2018				28	68	860	64		
10/19/2018									54
2/27/2019	110	54	110	68				20	
3/1/2019					28	440			
3/2/2019							210		28
5/31/2019	46	8	26	<5				32	
6/3/2019					28	950			54
6/11/2019							110		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/30/2019 10:52 AM View: PL's Interwell 100 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307 (bg)	MW-105	MW-110	MW-109
2/29/2016				
3/1/2016	<5	290		
3/2/2016			440	30
5/2/2016	36			
5/3/2016				
5/4/2016				
5/5/2016		250	480	38
7/5/2016	<5			
7/7/2016		270	470	22
7/8/2016				
9/6/2016	44			
9/7/2016		270	440	38
11/7/2016	30			
11/9/2016		330		
11/10/2016			260	38
1/9/2017	12			
1/11/2017		330		
1/12/2017			630	40
3/13/2017	20			
3/14/2017		260		22
3/15/2017			620	
5/15/2017	4 (J)			
5/18/2017		360	640	24
10/2/2017	24			
10/5/2017		240		<5
10/6/2017			360	
12/19/2017		460 (R)	840 (R)	
3/12/2018	<5			
3/14/2018		300	660	12
6/5/2018				
6/6/2018	16			
6/10/2018		560		
6/11/2018			670	26
10/16/2018				
10/17/2018	44			
10/18/2018		250	750	34
10/19/2018				
2/27/2019	28			
3/1/2019		210	640	42
3/2/2019				
5/31/2019	18			
6/3/2019		500	420	54
6/11/2019				

Interwell Prediction Limit Summary - 200 Series Wells Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/13/2019, 8:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-200	0.081	n/a	6/4/2019	11	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-201	0.081	n/a	6/4/2019	5.2	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Boron (mg/L)	MW-206	0.081	n/a	6/4/2019	19	Yes	84	n/a	n/a	96.43	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-200	1.349	n/a	6/4/2019	170	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	MW-201	1.349	n/a	6/4/2019	54	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Calcium (mg/L)	MW-206	1.349	n/a	6/4/2019	380	Yes	84	0.8913	0.1266	0	None	x^(1/3)	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-200	6.569	n/a	6/4/2019	310	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-201	6.569	n/a	6/4/2019	98	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Chloride (mg/L)	MW-206	6.569	n/a	6/4/2019	690	Yes	84	5.139	0.8471	0	None	No	0.002505	Param Inter 1 of 2
Sulfate (mg/L)	MW-200	5	n/a	6/4/2019	100	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-201	5	n/a	6/4/2019	100	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	MW-206	5	n/a	6/4/2019	280	Yes	83	n/a	n/a	74.7	n/a	n/a	0.0002814	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-200	110	n/a	6/4/2019	1200	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-201	110	n/a	6/4/2019	400	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	MW-206	110	n/a	6/4/2019	2300	Yes	84	n/a	n/a	29.76	n/a	n/a	0.0002752	NP Inter (normality) 1 of 2

Interwell Prediction Limit Summary - 200 Series Wells All Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/13/2019, 8:53 AM

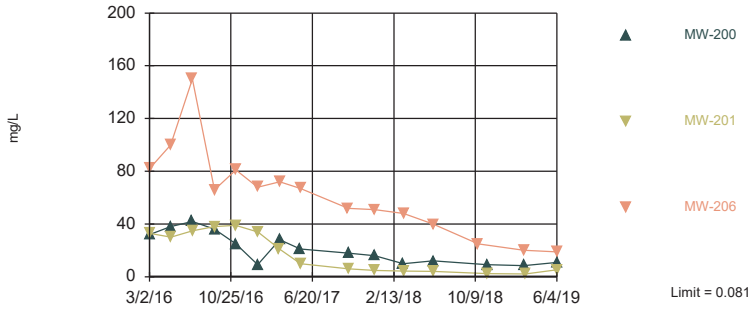
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**MW-200**	**0.081**	**n/a**	**6/4/2019**	**11**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-201**	**0.081**	**n/a**	**6/4/2019**	**5.2**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**MW-206**	**0.081**	**n/a**	**6/4/2019**	**19**	**Yes**	**84**	**n/a**	**n/a**	**96.43**	**n/a**	**n/a**	**0.0002752**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**MW-200**	**1.349**	**n/a**	**6/4/2019**	**170**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-201**	**1.349**	**n/a**	**6/4/2019**	**54**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**MW-206**	**1.349**	**n/a**	**6/4/2019**	**380**	**Yes**	**84**	**0.8913**	**0.1266**	**0**	**None**	**x^(1/3)**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-200**	**6.569**	**n/a**	**6/4/2019**	**310**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-201**	**6.569**	**n/a**	**6/4/2019**	**98**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**MW-206**	**6.569**	**n/a**	**6/4/2019**	**690**	**Yes**	**84**	**5.139**	**0.8471**	**0**	**None**	**No**	**0.002505**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-200	0.12	n/a	6/4/2019	0.1ND	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-201	0.12	n/a	6/4/2019	0.09	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-206	0.12	n/a	6/4/2019	0.08	No	84	n/a	n/a	97.62	n/a	n/a	0.0002752	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	**MW-200**	**5**	**n/a**	**6/4/2019**	**100**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-201**	**5**	**n/a**	**6/4/2019**	**100**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Sulfate (mg/L)	**MW-206**	**5**	**n/a**	**6/4/2019**	**280**	**Yes**	**83**	**n/a**	**n/a**	**74.7**	**n/a**	**n/a**	**0.0002814**	**NP Inter (NDs) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-200**	**110**	**n/a**	**6/4/2019**	**1200**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-201**	**110**	**n/a**	**6/4/2019**	**400**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**MW-206**	**110**	**n/a**	**6/4/2019**	**2300**	**Yes**	**84**	**n/a**	**n/a**	**29.76**	**n/a**	**n/a**	**0.0002752**	**NP Inter (normality) 1 of 2**

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-200, MW-201, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 96.43% NDs. Annual per-constituent alpha = 0.00165. Individual comparison alpha = 0.0002752 (1 of 2). Comparing 3 points to limit.

Constituent: Boron Analysis Run 11/13/2019 8:48 AM View: PL's Interwell 200 Series

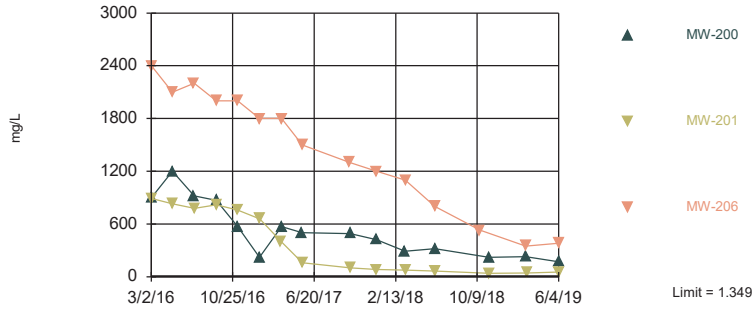
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-200, MW-201, MW-206

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.8913, Std. Dev.=0.1266, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9663, critical = 0.96. Kappa = 1.688 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Calcium Analysis Run 11/13/2019 8:48 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

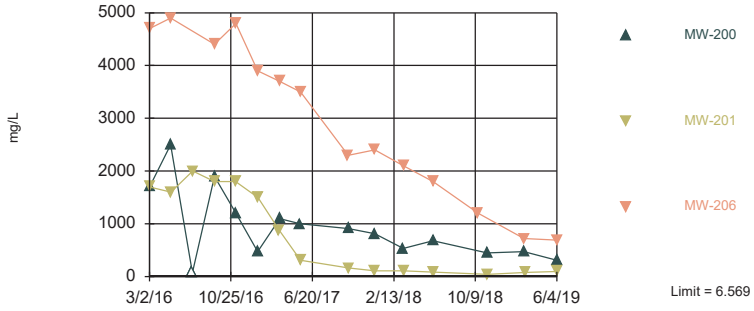
Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Exceeds Limit: MW-200, MW-201, MW-206

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.139, Std. Dev.=0.8471, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9612, critical = 0.96. Kappa = 1.688 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Chloride Analysis Run 11/13/2019 8:48 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

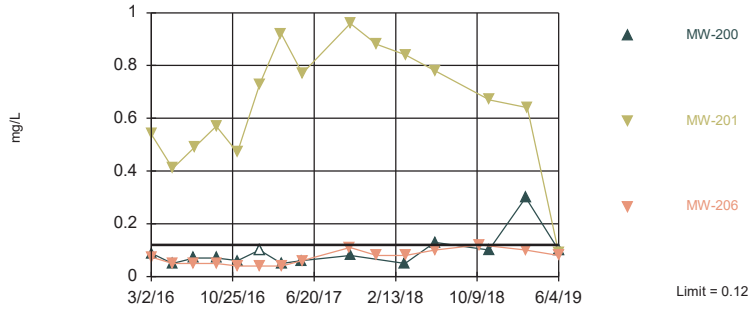
Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 97.62% NDs. Annual per-constituent alpha = 0.00165. Individual comparison alpha = 0.0002752 (1 of 2). Comparing 3 points to limit.

Constituent: Fluoride Analysis Run 11/13/2019 8:49 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-307 (bg)	MW-306 (bg)	MW-200	MW-201	MW-206
2/29/2016	<0.05	<0.05	<0.05	<0.05					
3/1/2016					<0.05	<0.05			
3/2/2016							32	33	82
5/2/2016	<0.05	<0.05		<0.05	<0.05				
5/3/2016						<0.05	38		100
5/4/2016			<0.05					30	
7/5/2016	<0.05	<0.05		<0.05	<0.05	<0.05	42		150
7/6/2016								35	
7/8/2016			<0.05						
9/6/2016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
9/8/2016							36	38	66
11/7/2016	<0.05	<0.05		<0.05	<0.05	<0.05			
11/8/2016								39	
11/9/2016							25		81
11/10/2016			<0.05						
1/9/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
1/11/2017			<0.05						
1/12/2017							9.1		68
1/13/2017								34	
3/13/2017	<0.05	<0.05		0.022 (J)	<0.05	<0.05			
3/14/2017			<0.05						
3/16/2017								21	
3/17/2017							28		72
5/15/2017	<0.05	<0.05		<0.05	<0.05	<0.05			
5/16/2017							21		
5/17/2017								10	67
5/18/2017			<0.05						
10/2/2017	<0.05	<0.05		0.023 (J)	<0.05	<0.05			
10/3/2017									52
10/4/2017							18	6	
10/5/2017			<0.05						
12/20/2017							16 (R)	4.9 (R)	51
3/12/2018	<0.05	<0.05		<0.05	<0.05	<0.05			
3/13/2018							10		
3/14/2018			<0.05					4.4	48
6/5/2018	<0.05	<0.05		<0.05					
6/6/2018					<0.05	<0.05			
6/8/2018							12		40
6/9/2018								4.1	
6/10/2018			<0.05						
10/16/2018	<0.05	<0.05		<0.05					
10/17/2018					<0.05	<0.05			25
10/18/2018			0.081						
11/13/2018							9.1		
11/14/2018								2.3	
2/27/2019	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
2/28/2019							8.5		20
3/5/2019								2.1	
5/31/2019	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
6/4/2019							11	5.2	19

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-307 (bg)	MW-306 (bg)	MW-200	MW-201	MW-206
2/29/2016	1	0.67	1 (J)	1.4					
3/1/2016					1.5	0.6			
3/2/2016							900	890	2400
5/2/2016	0.78	0.58		1.1	0.83				
5/3/2016						0.55	1200		2100
5/4/2016			0.62					830	
7/5/2016	0.65	0.43		0.94	1.6	0.53	920		2200
7/6/2016								780	
7/8/2016			0.4						
9/6/2016	0.7	0.48	0.45	1	1.6	0.5			
9/8/2016							870	820	2000
11/7/2016	0.8	0.56		1.2	1.5	0.68			
11/8/2016								760	
11/9/2016							570		2000
11/10/2016			0.44						
1/9/2017	0.74	0.43		1.2	0.98	0.56			
1/11/2017			0.42						
1/12/2017							220		1800
1/13/2017								660	
3/13/2017	0.78	0.48		1.3	0.75	0.62			
3/14/2017			0.42						
3/16/2017								400	
3/17/2017							570		1800
5/15/2017	0.76	0.37		1	0.83	0.58			
5/16/2017							500		
5/17/2017								160	1500
5/18/2017			0.38						
10/2/2017	0.78	0.47		1.2	0.83	0.62			
10/3/2017									1300
10/4/2017							490	100	
10/5/2017			0.39						
12/20/2017							420 (R)	82 (R)	1200
3/12/2018	0.88	0.49		1.4	0.71	0.59			
3/13/2018							290		
3/14/2018			0.49					75	1100
6/5/2018	0.9	0.49		1.2					
6/6/2018					0.68	0.59			
6/8/2018							320		800
6/9/2018								64	
6/10/2018			0.39						
10/16/2018	0.86	0.42		1.4					
10/17/2018					0.66	0.54			530
10/18/2018			0.41						
11/13/2018							220		
11/14/2018								38	
2/27/2019	0.96	0.56	0.44	1.3	0.7	0.63			
2/28/2019							230		350
3/5/2019								43	
5/31/2019	0.76	0.33	0.28	1.1	0.52	0.45			
6/4/2019							170	54	380 (D)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-306 (bg)	MW-307 (bg)	MW-201	MW-206	MW-200
2/29/2016	5.3	7.4	5.4	8.1					
3/1/2016					5.6	4			
3/2/2016							1700	4700	1700
5/2/2016	4.4	6.3		6		3.6			
5/3/2016					5.1			4900	2500
5/4/2016			4.5				1600		
7/5/2016	4.2	4.8		5.2	4.7	3.6		360 (o)	<140 (*)
7/6/2016							2000		
7/8/2016			4.9						
9/6/2016	4.3	6	4.3	5.5	4.4	4			
9/8/2016							1800	4400	1900
11/7/2016	4.2	5.7		5.4	4.6	4.4			
11/8/2016							1800		
11/9/2016								4800	1200
11/10/2016			4.5						
1/9/2017	5.3	6.8		6.1	5.3	4.4			
1/11/2017			5.3						
1/12/2017								3900	470
1/13/2017							1500		
3/13/2017	5.2	6.8		5.5	5.6	4.1			
3/14/2017			5.5						
3/16/2017							870		
3/17/2017								3700	1100
5/15/2017	4.8	6.1		4.7	5.2	3.7			
5/16/2017									1000
5/17/2017							310	3500	
5/18/2017			5						
10/2/2017	5.5	6		6.1	5.5	4.8			
10/3/2017								2300	
10/4/2017							160		910
10/5/2017			5.6						
12/20/2017							110 (R)	2400	810 (R)
3/12/2018	5.3	5.9		6.1	5.6	4			
3/13/2018									530
3/14/2018			5.2				110	2100	
6/5/2018	5.3	6.5		5.5					
6/6/2018					5.6	4.1			
6/8/2018								1800	680
6/9/2018							86		
6/10/2018			5.2						
10/16/2018	5.5	5.9		5.1					
10/17/2018					5.5	3.7		1200	
10/18/2018			5.2						
11/13/2018									450
11/14/2018							41		
2/27/2019	4.6	4.3	5.1	5	5.1	4			
2/28/2019								720	470
3/5/2019							75		
5/31/2019	5.1	4.5	5	5.4	5.4	3.7			
6/4/2019							98	690	310

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

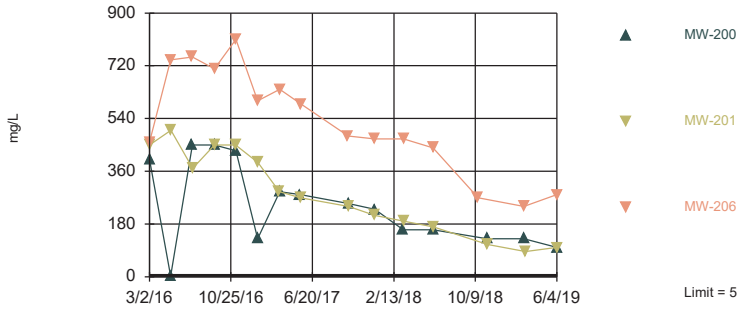
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-107 (bg)	MW-101 (bg)	MW-306 (bg)	MW-307 (bg)	MW-201	MW-200	MW-206
2/29/2016	<0.1	<0.1	<0.1	<0.1					
3/1/2016					<0.1	0.033 (J)			
3/2/2016							0.54	0.088 (J)	0.074 (J)
5/2/2016	<0.1	<0.1	<0.1			<0.1			
5/3/2016					<0.1			0.05 (J)	0.05 (J)
5/4/2016				<0.1			0.41		
7/5/2016	<0.1	<0.1	<0.1		<0.1	<0.1		0.07 (J)	0.05 (J)
7/6/2016							0.49		
7/8/2016				<0.1					
9/6/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
9/8/2016							0.57	0.07 (J)	0.05 (J)
11/7/2016	<0.1	<0.1	<0.1		<0.1	<0.1			
11/8/2016							0.47		
11/9/2016								0.06 (J)	0.04 (J)
11/10/2016				<0.1					
1/9/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
1/11/2017				<0.1					
1/12/2017								<0.1	0.04 (J)
1/13/2017							0.73		
3/13/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
3/14/2017				<0.1					
3/16/2017							0.92		
3/17/2017								0.05 (J)	0.04 (J)
5/15/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
5/16/2017								0.06 (J)	
5/17/2017							0.77		0.06 (J)
5/18/2017				<0.1					
10/2/2017	<0.1	<0.1	<0.1		<0.1	<0.1			
10/3/2017									0.11
10/4/2017							0.96	0.08 (J)	
10/5/2017				<0.1					
12/20/2017							0.88 (R)		0.08 (I)
3/12/2018	<0.1	<0.1	<0.1		<0.1	<0.1			
3/13/2018								0.05 (J)	
3/14/2018				0.12			0.84		0.08 (J)
6/5/2018	<0.1	<0.1	<0.1						
6/6/2018					<0.1	<0.1			
6/8/2018								0.13	0.1
6/9/2018							0.78		
6/10/2018				<0.1					
10/16/2018	<0.1	<0.1	<0.1						
10/17/2018					<0.1	<0.1			0.12
10/18/2018				<0.1					
11/13/2018								0.1	
11/14/2018							0.67		
2/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
2/28/2019								0.3	0.1
3/5/2019							0.64		
5/31/2019	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
6/4/2019							0.09 (J)	<0.1	0.08 (J)

Exceeds Limit: MW-200, MW-201, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 83 background values. 74.7% NDs. Annual per-constituent alpha = 0.001687. Individual comparison alpha = 0.0002814 (1 of 2). Comparing 3 points to limit.

Constituent: Sulfate Analysis Run 11/13/2019 8:49 AM View: PL's Interwell 200 Series

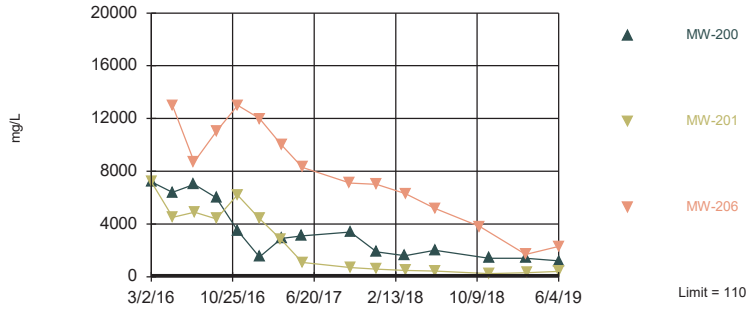
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: MW-200, MW-201, MW-206

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 29.76% NDs. Annual per-constituent alpha = 0.00165. Individual comparison alpha = 0.0002752 (1 of 2). Comparing 3 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/13/2019 8:49 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-107 (bg)	MW-101 (bg)	MW-108 (bg)	MW-306 (bg)	MW-307 (bg)	MW-200	MW-206	MW-201
2/29/2016	<5	<5	<5	1.6 (J)					
3/1/2016					<5	<5			
3/2/2016							400	460	450
5/2/2016	15 (o)	<5		2.1 (J)		<5			
5/3/2016					<5		2.2 (J)	740	
5/4/2016			<5						500
7/5/2016	<5	<5		2 (J)	<5	<5	450 (J)	750	
7/6/2016									370
7/8/2016			<5						
9/6/2016	<5	<5	<5	1.8 (J)	<5	3.7 (J)			
9/8/2016							450	710	450
11/7/2016	<5	<5		1.7 (J)	<5	<5			
11/8/2016									450
11/9/2016							430	810	
11/10/2016			<5						
1/9/2017	<5	2.6 (J)		1.5 (J)	<5	<5			
1/11/2017			<5						
1/12/2017							130	600	
1/13/2017									390
3/13/2017	2.5 (J)	<5		2.2 (J)	<5	<5			
3/14/2017			<5						
3/16/2017									290
3/17/2017							290	640	
5/15/2017	<5	<5		1.9 (J)	<5	<5			
5/16/2017							280		
5/17/2017								590	270
5/18/2017			<5 (X)						
10/2/2017	<5	<5		3.4 (J)	1.5 (J)	1.7 (J)			
10/3/2017								480	
10/4/2017							250		240
10/5/2017			<5						
12/20/2017							230 (R)	470	210 (R)
3/12/2018	<5	<5		2.6 (J)	<5	<5			
3/13/2018							160		
3/14/2018			<5					470	190
6/5/2018	<5	<5		2.6 (J)					
6/6/2018					<5	<5			
6/8/2018							160	440	
6/9/2018									170
6/10/2018			1.5 (J)						
10/16/2018	<5	<5		2.8 (J)					
10/17/2018					<5	<5		270	
10/18/2018			<5						
11/13/2018							130		
11/14/2018									110
2/27/2019	<5	<5	1.9 (J)	2.4 (J)	<5	<5			
2/28/2019							130	240	
3/5/2019									86
5/31/2019	<5	<5	<5	3.3 (J)	<5	<5			
6/4/2019							100	280	100

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/13/2019 8:53 AM View: PL's Interwell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100 (bg)	MW-108 (bg)	MW-101 (bg)	MW-107 (bg)	MW-306 (bg)	MW-307 (bg)	MW-201	MW-200	MW-206
2/29/2016	20	12	20	<5					
3/1/2016					10	<5			
3/2/2016							7200	7200	32000 (o)
5/2/2016	<5	6		<5		36			
5/3/2016					<5			6400	13000
5/4/2016			6				4500		
7/5/2016	12	<5		14	<5	<5		7000	8700
7/6/2016							4900		
7/8/2016			6						
9/6/2016	36	38	36	30	36	44			
9/8/2016							4400	6000	11000 (Q)
11/7/2016	18	<5		8	<5	30			
11/8/2016							6200		
11/9/2016								3500	13000
11/10/2016			16						
1/9/2017	4 (J)	14		<5	<5	12			
1/11/2017			38						
1/12/2017								1500	12000
1/13/2017							4400		
3/13/2017	6	8		<5	22	20			
3/14/2017			<5						
3/16/2017							2800		
3/17/2017								2900	10000
5/15/2017	<5	<5		<5	6	4 (J)			
5/16/2017								3100	
5/17/2017							1100		8300
5/18/2017			10						
10/2/2017	<5	6		<5	16	24			
10/3/2017									7100
10/4/2017							700	3400	
10/5/2017			<5						
12/20/2017							590 (R)	1900 (R)	7000
3/12/2018	18	<5		14	<5	<5			
3/13/2018								1600	
3/14/2018			8				490		6300
6/5/2018	10	14		<5					
6/6/2018					20	16			
6/8/2018								2000	5200
6/9/2018							430		
6/10/2018			8						
10/16/2018	32	6		12					
10/17/2018					44	44			3800
10/18/2018			28						
11/13/2018								1400	
11/14/2018							230		
2/27/2019	110	110	68	54	20	28			
2/28/2019								1400	1700
3/5/2019							300		
5/31/2019	46	26	<5	8	32	18			
6/4/2019							400	1200	2300

Intrawell Prediction Limit Summary - 200 Series Significant Results

Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	**MW-200**	**5.263**	**4.716**	**6/4/2019**	**5.27**	**Yes**	**14**	**4.989**	**0.134**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Field pH (SU)	**MW-206**	**4.64**	**3.998**	**6/4/2019**	**4.69**	**Yes**	**14**	**4.319**	**0.1573**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**

Intrawell Prediction Limit Summary - 200 Series All Results

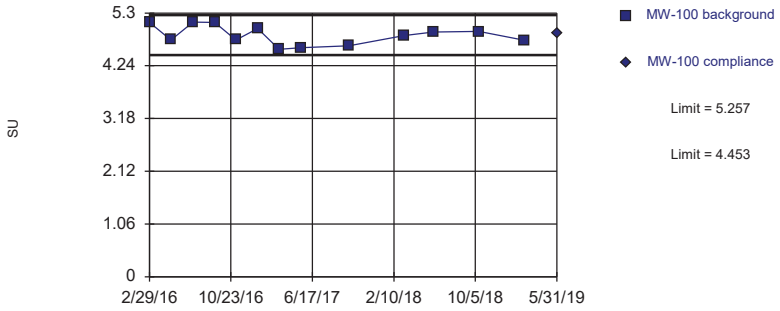
Plant Crist Client: Gulf Power Data: Plant Crist CCR Printed 11/12/2019, 8:11 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Field pH (SU)	MW-100	5.257	4.453	5/31/2019	4.9	No	13	4.855	0.1936	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-101	5.491	4.42	5/31/2019	4.92	No	13	4.955	0.258	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-107	5.412	4.406	5/31/2019	4.92	No	13	4.909	0.2421	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-108	5.178	4.369	5/31/2019	4.84	No	12	4.773	0.1917	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-306	5.438	4.624	5/31/2019	4.89	No	13	5.031	0.1961	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	MW-307	6.537	5.063	5/31/2019	5.45	No	13	5.8	0.3549	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	**MW-200**	**5.263**	**4.716**	**6/4/2019**	**5.27**	**Yes**	**14**	**4.989**	**0.134**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**
Field pH (SU)	MW-201	5.704	4.463	6/4/2019	4.85	No	14	5.084	0.304	0	None	No	0.001253	Param Intra 1 of 2
Field pH (SU)	**MW-206**	**4.64**	**3.998**	**6/4/2019**	**4.69**	**Yes**	**14**	**4.319**	**0.1573**	**0**	**None**	**No**	**0.001253**	**Param Intra 1 of 2**

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.855, Std. Dev.=0.1936, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9274, critical = 0.814. Kappa = 2.077 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

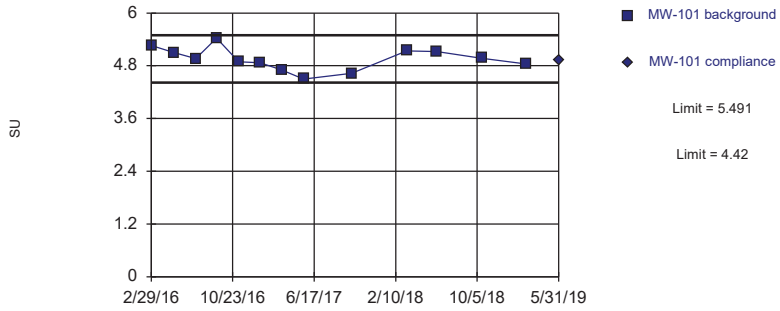
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.955, Std. Dev.=0.258, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9894, critical = 0.814. Kappa = 2.077 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

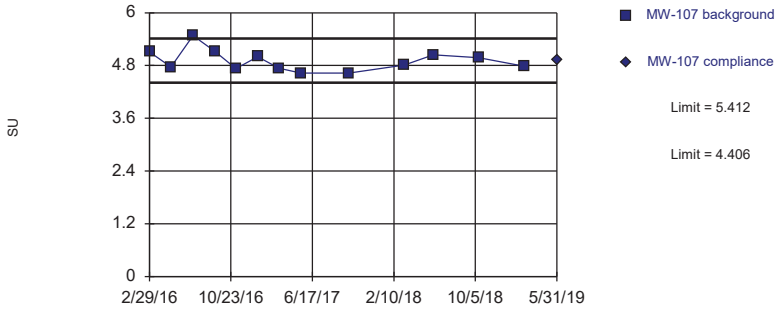
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.909, Std. Dev.=0.2421, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9038, critical = 0.814. Kappa = 2.077 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

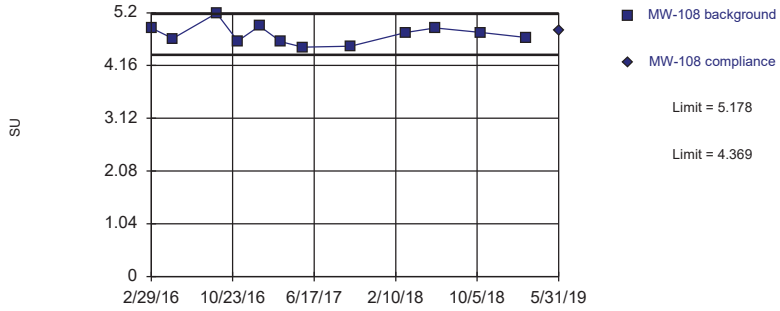
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.773, Std. Dev.=0.1917, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9468, critical = 0.805. Kappa = 2.112 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-100	MW-100
2/29/2016	5.11	
5/2/2016	4.76	
7/5/2016	5.12	
9/6/2016	5.11	
11/7/2016	4.76	
1/9/2017	4.99	
3/13/2017	4.57	
5/15/2017	4.6	
10/2/2017	4.64	
3/12/2018	4.85	
6/5/2018	4.92	
10/16/2018	4.93	
2/27/2019	4.75	
5/31/2019		4.9

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-101	MW-101
2/29/2016	5.26	
5/4/2016	5.1	
7/8/2016	4.96	
9/6/2016	5.43	
11/10/2016	4.89	
1/11/2017	4.87	
3/14/2017	4.71	
5/18/2017	4.5	
10/5/2017	4.63	
3/14/2018	5.14	
6/10/2018	5.12	
10/18/2018	4.97	
2/27/2019	4.84	
5/31/2019		4.92

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-107	MW-107
2/29/2016	5.11	
5/2/2016	4.77	
7/5/2016	5.48	
9/6/2016	5.12	
11/7/2016	4.73	
1/9/2017	5	
3/13/2017	4.74	
5/15/2017	4.63	
10/2/2017	4.63	
3/12/2018	4.81	
6/5/2018	5.04	
10/16/2018	4.98	
2/27/2019	4.78	
5/31/2019		4.92

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

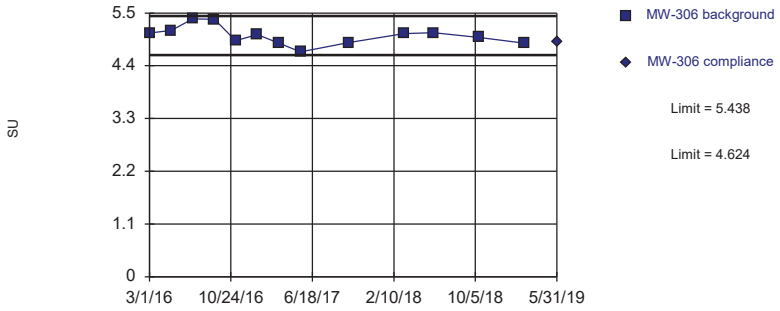
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-108	MW-108
2/29/2016	4.9	
5/2/2016	4.69	
7/5/2016	7.11 (o)	
9/6/2016	5.19	
11/7/2016	4.64	
1/9/2017	4.94	
3/13/2017	4.63	
5/15/2017	4.52	
10/2/2017	4.54	
3/12/2018	4.81	
6/5/2018	4.9	
10/16/2018	4.81	
2/27/2019	4.71	
5/31/2019		4.84

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.031, Std. Dev.=0.1961, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.814. Kappa = 2.077 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

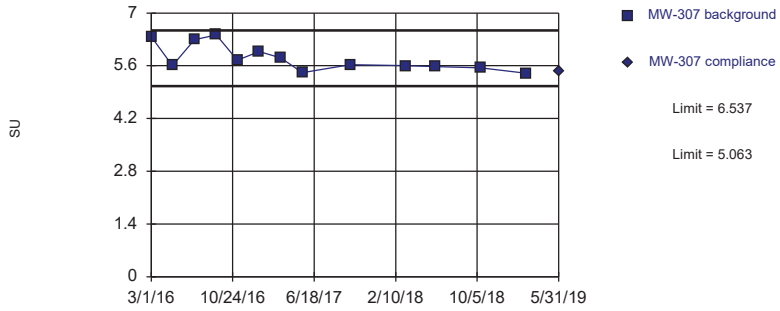
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.8, Std. Dev.=0.3549, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8636, critical = 0.814. Kappa = 2.077 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

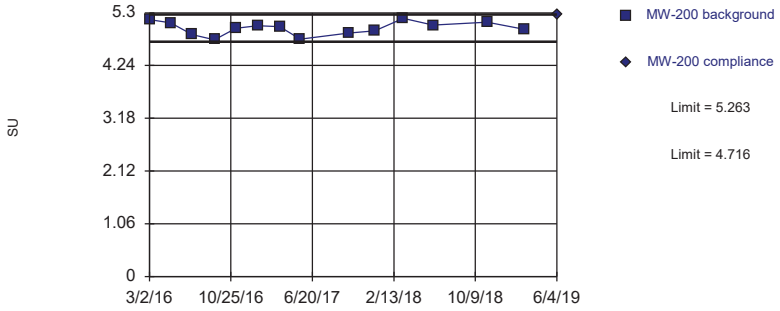
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.989, Std. Dev.=0.134, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9622, critical = 0.825. Kappa = 2.041 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

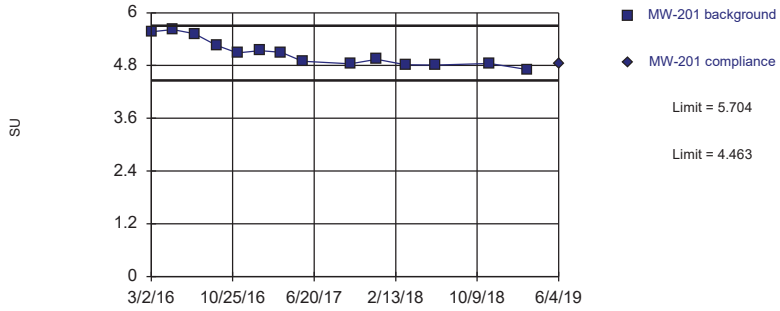
Plant Crist Client: Gulf Power Data: Plant Crist CCR

Sanitas™ v.9.6.23d Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.084, Std. Dev.=0.304, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8864, critical = 0.825. Kappa = 2.041 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-306	MW-306
3/1/2016	5.08	
5/3/2016	5.14	
7/5/2016	5.38	
9/6/2016	5.37	
11/7/2016	4.92	
1/9/2017	5.05	
3/13/2017	4.87	
5/15/2017	4.69	
10/2/2017	4.88	
3/12/2018	5.07	
6/6/2018	5.09	
10/17/2018	4.99	
2/27/2019	4.87	
5/31/2019		4.89

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-307	MW-307
3/1/2016	6.37	
5/2/2016	5.605 (D)	
7/5/2016	6.29	
9/6/2016	6.42	
11/7/2016	5.75	
1/9/2017	5.98	
3/13/2017	5.81	
5/15/2017	5.42	
10/2/2017	5.63	
3/12/2018	5.6	
6/6/2018	5.58	
10/17/2018	5.54	
2/27/2019	5.4	
5/31/2019		5.45

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-200	MW-200
3/2/2016	5.16 (D)	
5/3/2016	5.1	
7/5/2016	4.86	
9/8/2016	4.76	
11/9/2016	4.99	
1/12/2017	5.04	
3/17/2017	5.02	
5/16/2017	4.77	
10/4/2017	4.89	
12/20/2017	4.94 (R)	
3/13/2018	5.19	
6/8/2018	5.05	
11/13/2018	5.11	
2/28/2019	4.97	
6/4/2019		5.27

Prediction Limit

Constituent: Field pH (SU) Analysis Run 11/12/2019 8:11 AM View: PL's Intrawell 200 Series

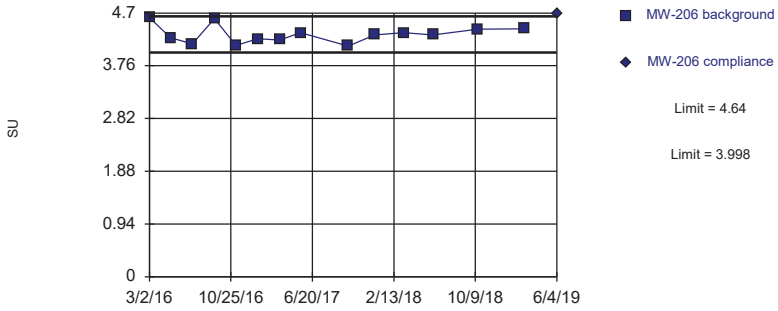
Plant Crist Client: Gulf Power Data: Plant Crist CCR

	MW-201	MW-201
3/2/2016	5.57	
5/4/2016	5.62	
7/6/2016	5.52	
9/8/2016	5.26	
11/8/2016	5.09	
1/13/2017	5.14	
3/16/2017	5.1	
5/17/2017	4.9	
10/4/2017	4.84	
12/20/2017	4.94 (R)	
3/14/2018	4.82	
6/9/2018	4.81	
11/14/2018	4.85	
3/5/2019	4.71	
6/4/2019		4.85

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.319, Std. Dev.=0.1573, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9338, critical = 0.825. Kappa = 2.041 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Field pH Analysis Run 11/12/2019 8:07 AM View: PL's Intrawell 200 Series

Plant Crist Client: Gulf Power Data: Plant Crist CCR

APPENDIX D

ACM Extension Demonstration

Geosyntec consultants

1120 North 12th Avenue
Pensacola, Florida 32501

ASSESSMENT OF CORRECTIVE MEASURES
DEADLINE EXTENSION DEMONSTRATION
40 CFR §257.96(a)
PLANT CRIST GYPSUM STORAGE AREA
GULF POWER COMPANY

Pursuant to 40 CFR §257.96(a), Gulf Power Company requires additional time to complete the Assessment of Corrective Measures (ACM) for the Plant Crist Gypsum Storage Area (GSA) due to site-specific conditions and circumstances. In accordance with 40 CFR §257.96(a), submittal of the ACM will occur by 12 June 2019.

The 60 day extension is required since nature and extent characterization activities, consistent with 40 CFR §257.95(g), are on-going at the Plant Crist GSA. For example, delineation piezometers have been installed at the GSA, however piezometer development has stalled due to elevated turbidity. Additional time is required to develop and sample these piezometers and evaluate the associated monitoring and potentiometric data. Results of the on-going characterization activities are anticipated to affect the evaluation of corrective measures considered in the ACM.

CERTIFICATION

I, Benjamin K. Amos, being a Registered Professional Engineer licensed in the State of Florida where the CCR unit is located, do hereby certify to the best of my knowledge, information, and belief, that the information provided above is accurate.



This document has been electronically signed and sealed by Benjamin Amos P.E. on 12 April 2019 using a SHA-1 authentication code. Printed copies of this document are not considered signed and sealed, and the SHA-1 authentication code must be verified on any electronic copies.
2019.04.12 09:36:48 -04'00'

Benjamin K. Amos, Ph.D., P.E.
Florida Professional Engineer No. 82837

Date