

**2019 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
NORTH ASH MANAGEMENT UNIT**

January 31, 2020

Prepared for

Mississippi Power Company
Gulfport, Mississippi

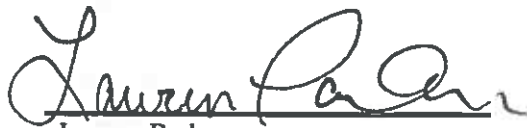
By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This 2019 Annual Groundwater Monitoring and Corrective Action Report, Mississippi Power Company – Plant Daniel North Ash Management Unit has been prepared to comply with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D) under the supervision of a licensed Professional Geologist with Southern Company Services.



Lauren Parker

Originator

Geologist



Eric E. Wallis, PG

Supervising Principal Hydrogeologist

Mississippi PG No. 0926

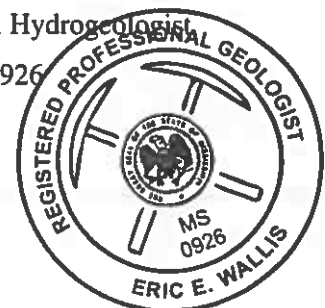


TABLE OF CONTENTS

Table of Contents	i
1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION	2
2.1 Regional Geology & Hydrogeologic Setting	2
2.2 Uppermost Aquifer	3
3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY	4
3.1 Groundwater Monitoring System.....	4
3.2 Detection Monitoring.....	4
3.3 Monitoring Well Installation and Maintenance	4
4.0 SAMPLE METHODOLOGY & ANALYSIS	5
4.1 Groundwater Flow Direction, Gradient, and Velocity.....	5
4.2 Groundwater Sampling	6
4.3 Laboratory Analysis.....	6
4.4 Quality Assurance and Quality Control	6
5.0 STATISTICAL ANALYSIS	8
5.1 Statistical Method	8
5.2 Statistical Analysis Results	8
6.0 MONITORING PROGRAM STATUS	9
7.0 CONCLUSIONS & FUTURE ACTIONS.....	10
8.0 REFERENCES	11

Tables

Table 1	Monitoring Well Network Summary
Table 2	Compliance Sampling Events Summary
Table 3	Groundwater Elevations Summary 2019
Table 4	Groundwater Flow Velocity Calculations – 2019
Table 5	Relative Percent Difference Calculations

Figures

Figure 1	Site Location Map
Figure 2	Monitoring Well Location Map
Figure 3	Potentiometric Surface Contour Map – April 17, 2019
Figure 4	Potentiometric Surface Contour Map – September 24, 2019

Appendices

Appendix A	Laboratory Analytical and Field Sampling Reports
Appendix B	Statistical Data Evaluation

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR § 257 Subpart D), this 2019 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the 2019 semi-annual detection groundwater monitoring activities at the Plant Daniel North Ash Management Unit (NAMU) and to satisfy the requirements of § 257.90(e). Semi-annual monitoring, and associated reporting for NAMU is performed in accordance with the monitoring requirements § 257.90 through § 257.94.

2.0 SITE DESCRIPTION

Mississippi Power Company's (MPC)'s Plant Daniel is located within Section 35, Township 5 South, Range 6 West, Sections 37, 10, 15, East half of Section 9, Southwest $\frac{1}{4}$ of Section 2, NW $\frac{1}{4}$ and south half of Section 11, and the north half and NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 14, all of Township 6 South, Range 6 West. Plant Daniel is situated immediately northwest of the intersection of Mississippi State Highways 63 and 613, between the Pascagoula River to the west and Highway 63 to the east. The site address is 13201 Highway 63 N, Escatawpa, Mississippi 39562. **Figure 1, Site Location Map**, depicts the location of Plant Daniel relative to site features and the surrounding area.

2.1 Regional Geology & Hydrogeologic Setting

Jackson County lies in the Pascagoula River Drainage Basin in the Gulf Coastal Plain physiographic province. Topographically, the province is gently rolling to flat with local salt marshes. Rock outcrops are sedimentary in origin and range in age from late Miocene to Recent (Gandl, 1982). A dominant regional structural feature which affects the sediments of Miocene and younger age is the Gulf Coast geosyncline. The sediments dip toward the Gulf of Mexico. Where formations are near the surface, dips are from 15 to 35 feet/mile. Further from the outcrop, dips increase dramatically with depth. Fresh-water aquifers in the Pascagoula area are sand or sand and gravel beds of Miocene age or younger, generally less than 1,000 feet below the surface.

The surface geology of soils near Plant Daniel results from present-day weathering processes dictated by southern Mississippi's semi-tropical climate and the parent geologic materials. The soil profile formed from a wide variety of sediments of recent age, and from Pleistocene terrace deposits. The soils therefore contain sand, silt, clay, gravel and organics.

Studies prepared by Southern Company Services, establish five geologic units underlying the immediate Plant Daniel property:

- Unit 1 is a sandy clay aquitard. The unit is discontinuous across the Plant Daniel site and extends from the surface to approximately 32 feet deep in some areas.
- Unit 2 is a sand aquifer, which extends to approximately 70 feet and is considered the uppermost aquifer for groundwater monitoring purposes.
- Unit 3 is a clay aquitard underlying Unit 2 with thicknesses ranging from 2.5 to 9.5 feet at Plant Daniel.
- Unit 4 is a sand and gravel aquifer with a thickness of 34 feet or greater.

- Unit 5 is a clay aquitard.

2.2 Uppermost Aquifer

Two aquifers supply water to the Pascagoula area. These are the Pliocene-age Citronelle and the Miocene Aquifer System, which includes the Graham Ferry Aquifer. Plant Daniel is in the Citronelle outcrop area.

The Citronelle Aquifers are the shallowest aquifers in the Pascagoula area. Although principally a sand and gravel formation, the Citronelle is characterized by occasional lenses and layers of clay which may cause semi-artesian conditions. Sediments become coarse near the irregular contact with the underlying Pascagoula or Graham Ferry Formation. Also, the Citronelle and overlying coastal deposits are generally considered one hydrogeologic unit. The Citronelle is primarily a water table aquifer with a saturated thickness of about 45 feet. Recharge is primarily by rainfall which moves vertically and down dip to recharge underlying aquifers and to sustain local streams (Wasson, 1978).

At the site, the Unit 2 sand is the uppermost aquifer for groundwater monitoring purposes.

3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to § 257.91, Plant Daniel has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer (Unit 2). The PE-certified groundwater monitoring system for the NAMU is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. As required by § 257.90(e), the following also describes monitoring-related activities performed during the preceding year.

3.1 Groundwater Monitoring System

The groundwater monitoring network is comprised of 7 monitoring wells. Monitoring well locations are presented on **Figure 2, Monitoring Well Location Map. Table 1, Monitoring Well Network Summary**, summarizes the monitoring well construction details and design purpose for the NAMU.

Monitoring well locations MW-11, MW-14, and MW-18 serve as upgradient locations for the NAMU. Upgradient wells are screened within the same uppermost aquifer as downgradient locations and are representative of background groundwater quality at the site. Monitoring well locations MW-15, MW-16, MW-17 and MW-19 are utilized as downgradient locations. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

3.2 Detection Monitoring

Based on results provided in previous Annual Groundwater and Corrective Action Monitoring Reports, the NAMU is performing detection monitoring. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on **Figure 2**. A summary of groundwater sampling events completed in 2019 is provided in **Table 2, Compliance Sampling Events Summary**.

Analytical data from the semi-annual monitoring events are included as **Appendix A, Laboratory Analytical and Field Sampling Reports**, in accordance with the requirements of § 257.90(e)(3).

3.3 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2019; the network remained the same as in the 2018 (previous) reporting year. Monitoring well-related activities were limited to visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

4.0 SAMPLE METHODOLOGY & ANALYSIS

The following describes the methods used to complete groundwater monitoring at NAMU.

4.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater levels were measured and recorded to the nearest 0.01 foot within a 24-hour period. Groundwater levels recorded during the monitoring events are summarized in **Table 3, Groundwater Elevations Summary - 2019**. Groundwater levels and top of casing elevations were used to calculate groundwater elevation and develop the potentiometric surface elevation contour map provided as **Figures 3 and 4, Potentiometric Surface Contour Map(s)**. As shown on Figures 3 and 4, the general direction of groundwater flow is west-southwest. The groundwater flow pattern observed during the 2019 monitoring events is consistent with historic observations.

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data at the site the average hydraulic conductivity at the site is 25.09 feet per day. The hydraulic gradient was calculated between well pairs shown on **Table 4, Groundwater Flow Velocity Calculations - 2019**. An effective porosity of 0.2 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (U.S. USEPA, 1996).

Horizontal flow velocity was calculated using the commonly-used derivative of Darcy's Law:

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

Where:

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

K = Average permeability of the aquifer $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, groundwater flow velocities are calculated for various areas of the site and are tabulated on **Table 4**.

Groundwater monitoring wells MW-14 and MW-16 were used as points for calculating Flow Path A and MW-11 and MW-19 were used to calculate Flow Path B. The horizontal hydraulic gradients ranged from 0.0036 ft/ft to 0.0042 ft/ft. As presented on **Table 4**, groundwater flow velocity at the site ranges from approximately 0.4516 feet/day (or approximately 164.84 feet/year) to 0.5269 feet/day (or approximately

192.31 feet/year). These calculated groundwater flow velocities across the site are consistent with historical calculations and with expected velocities.

4.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with § 257.93(a). All monitoring wells at Plant Daniel are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

- 0.2 standard units for pH
- 5% for specific conductance
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater)
- Turbidity measurements less than 5 NTU
- Temperature and ORP – record only, no stabilization criteria

During purging and sampling a SmarTroll instrument was used to monitor and record field parameters. Once stabilization was achieved, samples were collected and submitted to the laboratory following standard chain-of-custody (COC) protocol.

4.3 Laboratory Analysis

Laboratory analyses were performed by Eurofins Environmental Testing TestAmerica, Inc. (TAL) of Pittsburg, Pennsylvania. TAL is accredited by National Environmental Laboratory Accreditation Program (NELAP). TestAmerica maintains a NELAP certification for all parameters analyzed for this project. Groundwater analytical data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

4.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control samples (QA/QC) were collected at a rate of one sample per every 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in **Appendix A**. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (PQL). The estimated value is positively identified but is below lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. For groundwater analytical data, quality control procedures include calculating the relative percent difference (where field duplicates are collected, the RPD) between the sample and duplicate sample duplicate concentrations. This is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2) / 2}$$

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Relative percent differences are calculated for all detected concentrations above the laboratory reporting limit (RL). Where the RPD is below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 5, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during 2019 sampling events. RPD greater than 20% were noted for TDS in calculations for MW-15 and Dup-05. However, both results reviewed were less than 5 times the reporting limit (RL) and differences between original and duplicate were less than the RL. Therefore, no validation flag or qualifier was necessary for sulfate results.

5.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR § 257.93 and following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009). Results are included in **Appendix B, Statistical Data Evaluation**.

5.1 Statistical Method

At Plant Daniel, intrawell prediction limits (PL) are used to compare the most recent sample to prediction limits constructed from screened historical data from within the same well for each of the Appendix III parameters and determine whether any concentrations exceed background levels. The selected statistical method includes a 1-of-2 verification resample plan. When an initial (or apparent) statistically significant increase or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. If the second sample exceeds its respective background statistical limit, a statistically significant increase (SSI) is identified. If the second sample is below its respective background limit there is no SSI.

5.2 Statistical Analysis Results

Analytical data from the 2019 semi-annual monitoring events in April and September were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017) and Statistical Background Update by GSC (December 2019). Based on the statistical analysis, unconfirmed apparent statistical exceedances were observed during the first semi-annual monitoring event as follows:

- MW-16: Calcium and Chloride
- MW-17: Sulfate

As presented in **Appendix B**, the apparent exceedances observed during the first semi-annual event were not verified and SSI's were not reported during the second semi-annual detection monitoring event.

Because verified SSIs of Appendix III monitoring parameters were not observed in 2019 the NAMU remains in detection monitoring.

6.0 MONITORING PROGRAM STATUS

Presently, Plant Daniel NAMU is in detection monitoring. Statistical analysis of groundwater quality data has not identified any verified SSIs and the site will continue detection monitoring.

7.0 CONCLUSIONS & FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Plant Daniel NAMU identified apparent statistical exceedances of calcium and chloride in MW-16 and sulfate in MW-17 during the first semi-annual groundwater monitoring event. Those apparent exceedances were not verified by subsequent sampling; therefore, SSIs were not observed and the NAMU will remain in Detection Monitoring.

The next regularly scheduled semi-annual sampling event is tentatively scheduled for April 2020.

8.0 REFERENCES

- Gandl, L.A. “Characterization of Aquifers Designated as Potential Drinking Water Sources in Mississippi,” Water Resources Investigation Open-File Report 81-550, Mississippi Department of Natural Resources, Bureau of Pollution Control. 1982. 90 pp.
- USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.
- USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.* [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.
- USEPA. 2011. *Data Validation Standard Operating Procedures.* Science and Ecosystem Support Division. Region IV. Athens, GA. September.
- USEPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.
- Wasson, B.E., 1978, Availability of additional ground-water supplies in the Pascagoula area, Mississippi: Mississippi Research and Development Center Bulletin, 32 p.

Tables

**Table 1.
Monitoring Well Network Summary**

Well ID	Purpose	Installation Date	Northing	Easting	Total Hole Depth (feet)	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Top of Screen Elevation (feet MSL)	Bottom of Screen Elevation (feet MSL)
MW-11	Upgradient	5/2/2006	384797.922	1068943.907	32.00	25.24	23.22	-3.78	-8.78
MW-14	Upgradient	7/24/2015	384048.468	1068916.529	47.00	23.65	20.87	-11.83	-16.83
MW-15	Downgradient	7/24/2015	383503.877	1068571.153	37.00	21.53	18.69	-12.61	-17.61
MW-16	Downgradient	7/24/2015	383593.548	1067845.867	28.00	16.12	13.16	-6.94	-11.94
MW-17	Downgradient	7/24/2015	384781.265	1067808.459	27.00	15.41	12.59	-7.91	-12.91
MW-18	Upgradient	7/24/2015	385290.588	1068774.386	47.00	28.86	26.33	-10.27	-15.27
MW-19	Downgradient	7/26/2016	384157.41	1067711.624	30.00	24.42	21.56	-3.04	-8.04

Notes:

1. Northing and Easting are referenced to MS SPCS (NAD 83) East Zone U.S. Survey Feet (2301).
2. Elevations shown are referenced Mean Sea Level (MSL) to NAVD 88 (G12) U.S. Survey Feet.
3. MSL refers to Mean Sea Level.

**Table 2.
Compliance Sampling Event Summary**

Well ID	Purpose	Summary of Sampling Events		
		April 17-18, 2019	September 27-30, 2019	December 17, 2019
Purpose of Sampling Event		2019 Semi-Annual 01	2019 Semi-Annual 02	Resample
MW-11	Upgradient	D01	D02	--
MW-14	Upgradient	D01	D02	--
MW-15	Downgradient	D01	D02	--
MW-16	Downgradient	D01	D02	--
MW-17	Downgradient	D01	D02	--
MW-18	Upgradient	D01	D02	--
MW-19	Downgradient	D01	D02	R01

Notes:

Dxx = Detection Event Number

Rxx = Resample Event

Table 3.
Groundwater Elevations Summary - 2019

Well ID	Top of Casing Elevation (feet MSL)	Groundwater Elevations (feet MSL)	
		April 17, 2019	September 24, 2019
MW-11	25.24	12.76	11.21
MW-14	23.65	11.67	10.33
MW-15	21.53	9.99	8.85
MW-16	16.12	6.59	5.47
MW-17	15.41	8.28	7.31
MW-18	28.86	12.73	11.16
MW-19	24.42	6.02	4.72

Notes:

1. MSL refers to Mean Sea Level

Table 4.
Groundwater Flow Velocity Calculations - 2019

Flow Path A								
	MW-14	MW-16	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
4/17/2019	11.67	6.59	1350	0.0038	25.09	0.2	0.4721	172.30
9/24/2019	10.33	5.47	1350	0.0036	25.09	0.2	0.4516	164.84

Flow Path B								
	MW-11	MW-19	Distance	Hydraulic Gradient	Hydraulic Conductivity	Assumed Effective Porosity (ne)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
	h₁ (ft)	h₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K			
4/17/2019	12.76	6.02	1600	0.0042	25.09	0.2	0.5285	192.89
9/24/2019	11.21	4.72	1600	0.0041	25.09	0.2	0.5089	185.73

Notes:

ft=feet

ft/d = feet/day

ft/ft = feet per foot

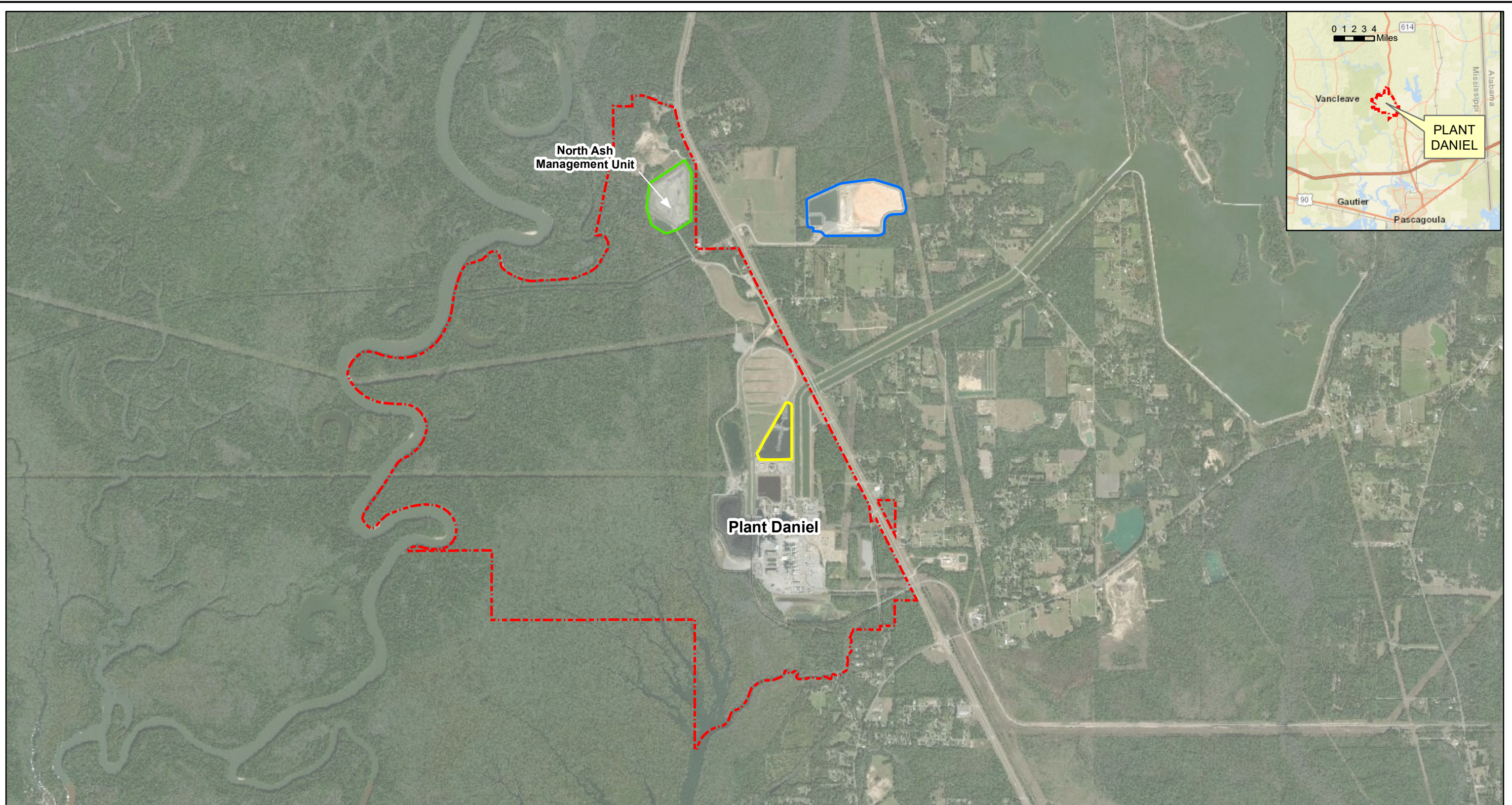
ft/yr = feet per year

Table 5.
Relative Percent Difference Calculations

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		MW-16	DUP-04	
TDS	mg/L	46	40	14.0
Chloride	mg/L	10.2	9.61	6.0
Sulfate	mg/L	2.52	2.19	14.0
Calcium	mg/L	1.09	1.21	10.4

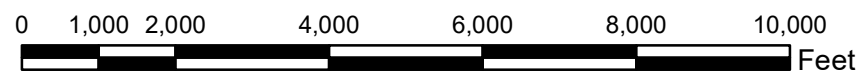
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		MW-15	DUP-05	
TDS	mg/L	34	25	30.5
Chloride	mg/L	6.75	6.72	0.4
Sulfate	mg/L	1.43	1.37	4.3
Calcium	mg/L	1.01	0.994	1.6

Figures



Legend

- North Ash Management Unit (NAMU) Boundary
- Gypsum Storage Area (GSA) Boundary
- Ash Pond B Boundary
- Property Boundary (Approximate)



SCALE	1:30000
DATE	12/20/2019
DRAWN BY	KWR
CHECKED BY	LMP



DRAWING TITLE
**SITE LOCATION MAP
 PLANT DANIEL
 NORTH ASH MANAGEMENT UNIT**

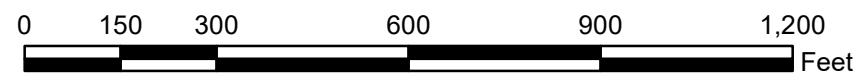
FIGURE NO
FIGURE 1





Legend

-  Monitoring Well
-  North Ash Management Unit



SCALE	1:3600
DATE	1/7/2020
DRAWN BY	KWR
CHECKED BY	LEP





DRAWING TITLE
**MONITORING WELL LOCATION MAP
 PLANT DANIEL
 NORTH ASH MANAGEMENT UNIT**

DRAWING NO
FIGURE 2





LEGEND:

-  Monitoring Well
 -  Estimated Potentiometric Surface Contour
 -  Approximate Groundwater Flow Direction
 -  North Ash Management Unit
- | | |
|--------------|-----------------------------------|
| MW-11 | Well Name |
| 12.76 | Groundwater Elevation (ft NAVD88) |



Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.

SCALE	1:3600	DRAWING TITLE	
DATE	1/3/2020	POTENTIOMETRIC SURFACE CONTOUR MAP APRIL 17, 2019 PLANT DANIEL NORTH ASH MANAGEMENT UNIT	
DRAWN BY	KWR	DRAWING NO	FIGURE 3
CHECKED BY	LEP		





LEGEND: Monitoring Well Estimated Potentiometric Surface Contour Approximate Groundwater Flow Direction North Ash Management Unit	MW-11 Well Name 11.21 Groundwater Elevation (ft NAVD88)			Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.	SCALE 1:3600	DRAWING TITLE POTENTIOMETRIC SURFACE CONTOUR MAP SEPTEMBER 24, 2019 PLANT DANIEL NORTH ASH MANAGEMENT UNIT
	DATE 1/3/2020				DRAWING NO	
	DRAWN BY KWR				FIGURE 4	
	CHECKED BY LEP				Southern Company	

Appendix A

1st
Semi-Annual
Monitoring Event

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-89352-1
Laboratory Sample Delivery Group: State
Client Project/Site: CCR - Plant Daniel
Revision: 1

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker



Authorized for release by:
5/13/2019 3:23:43 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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.

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	7
Method Summary	8
Lab Chronicle	9
Client Sample Results	12
QC Sample Results	15
QC Association Summary	17
Chain of Custody	18
Receipt Checklists	22

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Job ID: 180-89352-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-89352-1

Comments

No additional comments.

Receipt

The samples were received on 4/24/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Anions

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
 SDG: State

Laboratory: Eurofins TestAmerica, Pittsburgh

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
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
 SDG: State

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-89352-1	MW-11	Water	04/22/19 17:10	04/24/19 09:00
180-89352-2	MW-14	Water	04/23/19 09:20	04/24/19 09:00
180-89352-3	MW-15	Water	04/23/19 10:00	04/24/19 09:00
180-89352-4	MW-16	Water	04/22/19 09:20	04/24/19 09:00
180-89352-5	MW-17	Water	04/22/19 13:40	04/24/19 09:00
180-89352-6	MW-18	Water	04/22/19 14:15	04/24/19 09:00
180-89352-7	MW-19	Water	04/22/19 13:00	04/24/19 09:00
180-89352-8	DUP-04	Water	04/22/19 08:20	04/24/19 09:00
180-89352-9	DUP-05	Water	04/23/19 09:00	04/24/19 09:00



Method Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	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

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Client Sample ID: MW-11
Date Collected: 04/22/19 17:10
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 16:23	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:27	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: MW-14
Date Collected: 04/23/19 09:20
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 16:38	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:31	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: MW-15
Date Collected: 04/23/19 10:00
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 16:54	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:35	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: MW-16
Date Collected: 04/22/19 09:20
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 17:09	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:39	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Client Sample ID: MW-17

Date Collected: 04/22/19 13:40

Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 17:24	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:43	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: MW-18

Date Collected: 04/22/19 14:15

Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 17:39	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:47	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: MW-19

Date Collected: 04/22/19 13:00

Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 17:55	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 10:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Client Sample ID: DUP-04

Date Collected: 04/22/19 08:20

Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			277016	04/29/19 18:10	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020 Instrument ID: ICPMS7700		5			439563	05/03/19 11:11	DRE	TAL PEN
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
 SDG: State

Client Sample ID: DUP-05

Lab Sample ID: 180-89352-9

Date Collected: 04/23/19 09:00

Matrix: Water

Date Received: 04/24/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			277016	04/29/19 18:56	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	439351	05/02/19 10:30	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			439563	05/03/19 11:15	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	276812	04/25/19 14:18	AVS	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

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

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

Batch Type: Analysis

DRE = Daniel Etscheid

Lab: TAL PIT

Batch Type: Analysis

AVS = Abbey Smith

MJH = Matthew Hartman

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Client Sample ID: MW-11
Date Collected: 04/22/19 17:10
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.3		1.00	0.715	mg/L			04/29/19 16:23	1
Fluoride	0.0353	J	0.200	0.0263	mg/L			04/29/19 16:23	1
Sulfate	2.22		1.00	0.380	mg/L			04/29/19 16:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:27	5
Calcium	1.71		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: MW-14
Date Collected: 04/23/19 09:20
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-2
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.30		1.00	0.715	mg/L			04/29/19 16:38	1
Fluoride	0.0335	J	0.200	0.0263	mg/L			04/29/19 16:38	1
Sulfate	1.99		1.00	0.380	mg/L			04/29/19 16:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:31	5
Calcium	2.76		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:31	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: MW-15
Date Collected: 04/23/19 10:00
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-3
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.75		1.00	0.715	mg/L			04/29/19 16:54	1
Fluoride	0.0275	J	0.200	0.0263	mg/L			04/29/19 16:54	1
Sulfate	1.43		1.00	0.380	mg/L			04/29/19 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:35	5
Calcium	1.01		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:35	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34.0		10.0	10.0	mg/L			04/25/19 14:18	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Client Sample ID: MW-16
Date Collected: 04/22/19 09:20
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-4
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2		1.00	0.715	mg/L			04/29/19 17:09	1
Fluoride	0.0290	J	0.200	0.0263	mg/L			04/29/19 17:09	1
Sulfate	2.52		1.00	0.380	mg/L			04/29/19 17:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:39	5
Calcium	1.09		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:39	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	46.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: MW-17
Date Collected: 04/22/19 13:40
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-5
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.64		1.00	0.715	mg/L			04/29/19 17:24	1
Fluoride	<0.0263		0.200	0.0263	mg/L			04/29/19 17:24	1
Sulfate	2.96		1.00	0.380	mg/L			04/29/19 17:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:43	5
Calcium	0.946		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:43	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: MW-18
Date Collected: 04/22/19 14:15
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-6
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.17		1.00	0.715	mg/L			04/29/19 17:39	1
Fluoride	0.0311	J	0.200	0.0263	mg/L			04/29/19 17:39	1
Sulfate	4.66		1.00	0.380	mg/L			04/29/19 17:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:47	5
Calcium	0.531		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:47	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36.0		10.0	10.0	mg/L			04/25/19 14:18	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Client Sample ID: MW-19
Date Collected: 04/22/19 13:00
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-7
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.91		1.00	0.715	mg/L			04/29/19 17:55	1
Fluoride	<0.0263		0.200	0.0263	mg/L			04/29/19 17:55	1
Sulfate	2.09		1.00	0.380	mg/L			04/29/19 17:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:51	5
Calcium	0.634		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:51	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	31.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: DUP-04
Date Collected: 04/22/19 08:20
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-8
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.61		1.00	0.715	mg/L			04/29/19 18:10	1
Fluoride	0.0297	J	0.200	0.0263	mg/L			04/29/19 18:10	1
Sulfate	2.19		1.00	0.380	mg/L			04/29/19 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 11:11	5
Calcium	1.21		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 11:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40.0		10.0	10.0	mg/L			04/25/19 14:18	1

Client Sample ID: DUP-05
Date Collected: 04/23/19 09:00
Date Received: 04/24/19 09:00

Lab Sample ID: 180-89352-9
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.72		1.00	0.715	mg/L			04/29/19 18:56	1
Fluoride	0.0264	J	0.200	0.0263	mg/L			04/29/19 18:56	1
Sulfate	1.37		1.00	0.380	mg/L			04/29/19 18:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 11:15	5
Calcium	0.994		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 11:15	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	25.0		10.0	10.0	mg/L			04/25/19 14:18	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-277016/18
Matrix: Water
Analysis Batch: 277016

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.715		1.00	0.715	mg/L			04/29/19 09:48	1
Fluoride	<0.0263		0.200	0.0263	mg/L			04/29/19 09:48	1
Sulfate	<0.380		1.00	0.380	mg/L			04/29/19 09:48	1

Lab Sample ID: LCS 180-277016/17
Matrix: Water
Analysis Batch: 277016

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.43		mg/L		102	90 - 110
Fluoride	1.25	1.280		mg/L		102	90 - 110
Sulfate	25.0	25.23		mg/L		101	90 - 110

Lab Sample ID: 180-89352-11 MS
Matrix: Water
Analysis Batch: 277016

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	15.5		25.0	40.89		mg/L		102	80 - 120
Fluoride	0.275		1.25	1.520		mg/L		100	80 - 120
Sulfate	10.3		25.0	36.22		mg/L		104	80 - 120

Lab Sample ID: 180-89352-11 MSD
Matrix: Water
Analysis Batch: 277016

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15.5		25.0	40.71		mg/L		101	80 - 120	0	20
Fluoride	0.275		1.25	1.514		mg/L		99	80 - 120	0	20
Sulfate	10.3		25.0	36.13		mg/L		103	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-439351/1-A ^5
Matrix: Water
Analysis Batch: 439563

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 439351

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0210		0.0500	0.0210	mg/L		05/02/19 10:30	05/03/19 10:19	5
Calcium	<0.125		0.250	0.125	mg/L		05/02/19 10:30	05/03/19 10:19	5

Lab Sample ID: LCS 400-439351/2-A
Matrix: Water
Analysis Batch: 439563

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 439351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.1038		mg/L		104	80 - 120
Calcium	5.00	4.971		mg/L		99	80 - 120

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
 SDG: State

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

Lab Sample ID: MB 180-276812/2
Matrix: Water
Analysis Batch: 276812

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			04/25/19 14:18	1

Lab Sample ID: LCS 180-276812/1
Matrix: Water
Analysis Batch: 276812

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	201	200.0		mg/L		100	80 - 120



QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-89352-1
SDG: State

HPLC/IC

Analysis Batch: 277016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-89352-1	MW-11	Total/NA	Water	EPA 300.0 R2.1	
180-89352-2	MW-14	Total/NA	Water	EPA 300.0 R2.1	
180-89352-3	MW-15	Total/NA	Water	EPA 300.0 R2.1	
180-89352-4	MW-16	Total/NA	Water	EPA 300.0 R2.1	
180-89352-5	MW-17	Total/NA	Water	EPA 300.0 R2.1	
180-89352-6	MW-18	Total/NA	Water	EPA 300.0 R2.1	
180-89352-7	MW-19	Total/NA	Water	EPA 300.0 R2.1	
180-89352-8	DUP-04	Total/NA	Water	EPA 300.0 R2.1	
180-89352-9	DUP-05	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 439351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-89352-1	MW-11	Total Recoverable	Water	3005A	
180-89352-2	MW-14	Total Recoverable	Water	3005A	
180-89352-3	MW-15	Total Recoverable	Water	3005A	
180-89352-4	MW-16	Total Recoverable	Water	3005A	
180-89352-5	MW-17	Total Recoverable	Water	3005A	
180-89352-6	MW-18	Total Recoverable	Water	3005A	
180-89352-7	MW-19	Total Recoverable	Water	3005A	
180-89352-8	DUP-04	Total Recoverable	Water	3005A	
180-89352-9	DUP-05	Total Recoverable	Water	3005A	

Analysis Batch: 439563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-89352-1	MW-11	Total Recoverable	Water	6020	439351
180-89352-2	MW-14	Total Recoverable	Water	6020	439351
180-89352-3	MW-15	Total Recoverable	Water	6020	439351
180-89352-4	MW-16	Total Recoverable	Water	6020	439351
180-89352-5	MW-17	Total Recoverable	Water	6020	439351
180-89352-6	MW-18	Total Recoverable	Water	6020	439351
180-89352-7	MW-19	Total Recoverable	Water	6020	439351
180-89352-8	DUP-04	Total Recoverable	Water	6020	439351
180-89352-9	DUP-05	Total Recoverable	Water	6020	439351

General Chemistry

Analysis Batch: 276812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-89352-1	MW-11	Total/NA	Water	SM 2540C	
180-89352-2	MW-14	Total/NA	Water	SM 2540C	
180-89352-3	MW-15	Total/NA	Water	SM 2540C	
180-89352-4	MW-16	Total/NA	Water	SM 2540C	
180-89352-5	MW-17	Total/NA	Water	SM 2540C	
180-89352-6	MW-18	Total/NA	Water	SM 2540C	
180-89352-7	MW-19	Total/NA	Water	SM 2540C	
180-89352-8	DUP-04	Total/NA	Water	SM 2540C	
180-89352-9	DUP-05	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

Chain of Custody Record



Client Information Client Contact: Philip Evans Lauren Parker Company: Southern Company Address: City: State, Zip: Phone: SCS10382606 Email: WO #: Project #: 18020047 CCR - Plant Daniel NAMU CCR Samples Site:		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com Carrier Tracking No(s): COC No: 180-50998-10706.1 Page: Page 1 of 1 Job #:		
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: SOW#:		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> 6020, AppIII Boron & Ca 2540C_Calc'd, TDS; 300.0 F _i , Cl and SO4 Appendix 3 Total Number of Containers:		
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 Other:		Special Instructions/Note: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil)
MW-11	4/20/19	1710	G	Water
MW-14	4/23/19	0920		Water
MW-15	4/23/19	1000		Water
MW-16	4/22/19	0920		Water
MW-17	4/22/19	1340		Water
MW-18	4/22/19	1415		Water
MW-19	4/22/19	1300		Water
Dup-04	4/22/19	0820		Water
Dup-05	4/23/19	0900	G	Water
...				Water



TEA
10:30
1673
04.24

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: MULA (850) 336-0192
RICK HAGENDORFER
RPM ENVIRONMENTAL SERVICES INC
5720 DOVE DRIVE

SHIP DATE: 11 APR 19
ACTING: 30 00 LB MAN
CAD#: 859116/CAF3211

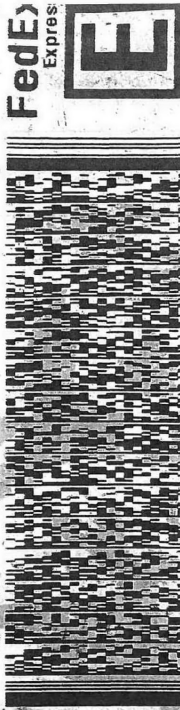
PACE F 32571
UNITED STATES US

TO: SAMPLE RECEIVING
EUROFINS TESTAMERICA PITTS
301 ALPHA DR

PITTSBURGH PA 15238

(412) 969-7058
REF: S180-51001

RMA: III III III



RETURNS MON - SA
WED - 24 APR 10:30
PRIORITY OVERNIGHT

FedEx
TRK# 4651 0081 1673
0221

XH AGCA

1523 PA-US P

uncorrected temp
Thermometer ID
CF 0 Initials B

PT-WI-SR-001 effective 11/8/18



Please secure this address label to the inside lid of



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 3355 McLemore Drive, City: Pensacola State, Zip: FL, 32514 Phone: 850-474-1001(Tel) 850-478-2671(Fax) Email:		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com State of Origin: Florida Carrier Tracking No(s): 180-361106.1 Page: Page 1 of 2 Job #: 180-89352-1			
Due Date Requested: 5/6/2019 TAT Requested (days): PO #: WO #: Project #: 18020047 SOW #:		Accreditations Required (See note): 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 Other: 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)			
Sample Identification - Client ID (Lab ID)		Total Number of Containers			
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)			
6020/3005A Appendix III		Special Instructions/Note:			
MW-11 (180-89352-1)	4/22/19	17:10 Eastern	Water	X	1
MW-14 (180-89352-2)	4/23/19	09:20 Eastern	Water	X	1
MW-15 (180-89352-3)	4/23/19	10:00 Eastern	Water	X	1
MW-16 (180-89352-4)	4/22/19	09:20 Eastern	Water	X	1
MW-17 (180-89352-5)	4/22/19	13:40 Eastern	Water	X	1
MW-18 (180-89352-6)	4/22/19	14:15 Eastern	Water	X	1
MW-19 (180-89352-7)	4/22/19	13:00 Eastern	Water	X	1
DUP-04 (180-89352-8)	4/22/19	08:20 Eastern	Water	X	1
DUP-05 (180-89352-9)	4/23/19	09:00 Eastern	Water	X	1

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification

Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *[Signature]* Date/Time: 4/25/19 1700 Company: TMA Company
 Relinquished by: *[Signature]* Date/Time: 4-26-19 840 Company: TA Company
 Relinquished by: _____ Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: 0.9°C JAC

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:



Chain of Custody Record

Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 3355 McLemore Drive, City: Pensacola State, Zip: FL, 32514 Phone: 850-474-1001(Tel) 850-478-2671(Fax) Email:		Lab PM: Bortol, Veronica E-Mail: veronica.bortol@testamericainc.com State of Origin: Florida Carrier Tracking No(s): 180-361106.2 Page: Page 2 of 2 Job #: 180-89352-1	
Due Date Requested: 5/6/2019 TAT Requested (days):		Accreditations Required (See note):	
PO #: WO #: Project #: 18020047 SSOW#:		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 Other: 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)	
Sample Date 4/22/19 4/22/19		Sample Time 10:45 Eastern 12:00 Eastern	
Sample Type (C=Comp, G=grab) Preservation Code: Matrix (W=water, S=solid, O=wastefl, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 602/3005A Appendix III Total Number of Containers	
Sample ID (Lab ID) MW-13 (180-89352-10) MW-12 (180-89352-11)		Special Instructions/Note: 1 1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Relinquished by: Relinquished by:		Method of Shipment: Date/Time: 4/25/19 1700 Date/Time: Date/Time: Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 0.9°C IR7	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-89352-1

SDG Number: State

Login Number: 89352

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Kovitch, Christina M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	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?	True	
There are no discrepancies between the containers received and the COC.	False	
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-89352-1

SDG Number: State

Login Number: 89352

List Number: 2

Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

List Creation: 04/26/19 06:21 PM

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	Not Present
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 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	



Product Name: Low-Flow System

Date: 2019-04-22 09:16:43

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 25.8 ft

Well Information:

Well ID MW-16
Well diameter 2 in
Well Total Depth 28.3 ft
Screen Length 5 ft
Depth to Water 8.95 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.05 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:53:56	300.06	23.70	4.48	54.31	0.58	9.00	0.10	120.30
Last 5	08:58:56	600.04	23.79	4.47	51.14	0.60	9.00	0.08	121.44
Last 5	09:03:56	900.04	23.90	4.49	49.74	0.57	9.00	0.08	119.96
Last 5	09:08:56	1200.04	24.01	4.49	49.03	0.55	9.00	0.08	120.11
Last 5	09:13:56	1500.04	24.06	4.49	48.67	0.55	9.00	0.08	119.76
Variance 0			0.11	0.03	-1.40			-0.00	-1.47
Variance 1			0.11	-0.00	-0.70			-0.00	0.14
Variance 2			0.05	0.01	-0.36			-0.00	-0.35

Notes

Sample time @ 0920. Sunny 70. DUP-04@ 0820.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-22 12:58:46

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 27.4 ft

Well Information:

Well ID MW-19
Well diameter 2 in
Well Total Depth 32.4 ft
Screen Length 10 ft
Depth to Water 17.80 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6362198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.05 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:37:34	900.05	24.47	4.95	30.29	2.14	17.85	0.65	57.66
Last 5	12:42:34	1200.05	24.67	4.96	30.30	1.96	17.85	0.41	39.07
Last 5	12:47:34	1500.05	24.59	4.96	30.19	1.90	17.85	0.30	30.65
Last 5	12:52:34	1800.05	24.65	4.96	30.20	1.85	17.85	0.25	25.19
Last 5	12:57:35	2101.05	24.65	4.97	30.22	1.88	17.85	0.22	20.97
Variance 0			-0.08	0.00	-0.10			-0.10	-8.42
Variance 1			0.05	0.00	0.01			-0.06	-5.46
Variance 2			0.00	0.01	0.02			-0.03	-4.22

Notes

Sample time @ 1300. Sunny 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-22 13:35:49

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 26.0 ft

Well Information:

Well ID MW-17
Well diameter 2 in
Well Total Depth 28.5 ft
Screen Length 5 ft
Depth to Water 6.75 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:23:22	300.05	24.05	4.93	39.81	2.10	6.82	0.21	64.34
Last 5	13:28:22	600.05	24.07	4.94	39.65	1.75	6.82	0.16	68.98
Last 5	13:33:22	900.05	24.09	4.94	39.67	1.66	6.82	0.14	71.45
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.02	0.01	-0.17			-0.06	4.64
Variance 2			0.02	0.00	0.02			-0.02	2.47

Notes

Sample time @ 1340. Sunny 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-22 14:15:11

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 41.9 ft

Well Information:

Well ID MW-18
Well diameter 2 in
Well Total Depth 44.4 ft
Screen Length 5 ft
Depth to Water 16.08 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.680854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:58:02	300.06	23.93	4.61	43.03	0.84	16.15	0.44	97.93
Last 5	14:03:02	600.06	23.83	4.63	43.04	0.68	16.15	0.18	92.75
Last 5	14:08:02	900.05	23.83	4.63	43.00	0.66	16.15	0.15	89.21
Last 5	14:13:02	1200.05	23.78	4.64	43.03	0.57	16.15	0.15	86.96
Last 5									
Variance 0			-0.09	0.02	0.01			-0.26	-5.18
Variance 1			0.00	0.01	-0.04			-0.03	-3.54
Variance 2			-0.06	0.00	0.03			-0.01	-2.25

Notes

Sample time @ 1415. Sunny 75.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-22 17:08:45

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 40 ft

Pump placement from TOC 30.5 ft

Well Information:

Well ID MW-11
Well diameter 2 in
Well Total Depth 33.0 ft
Screen Length 5 ft
Depth to Water 12.42 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6585369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 41.16 in
Total Volume Pumped 60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	16:41:55	7816.05	24.22	4.67	60.47	4.80	15.74	0.13	101.58
Last 5	16:46:54	8116.05	24.24	4.67	60.30	4.62	15.78	0.13	100.82
Last 5	16:51:57	8418.05	24.25	4.67	60.36	4.55	15.81	0.13	100.47
Last 5	16:57:04	8725.05	24.24	4.67	60.38	4.61	15.83	0.14	99.87
Last 5	17:02:21	9042.05	24.13	4.67	60.33	4.57	15.85	0.13	99.32
Variance 0			0.01	-0.00	0.05			0.00	-0.36
Variance 1			-0.01	0.00	0.02			0.01	-0.60
Variance 2			-0.11	0.00	-0.05			-0.00	-0.55

Notes

Sample time @ 1710. Sunny 72.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-23 09:16:36

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID MW-14
Well diameter 2 in
Well Total Depth 40.7 ft
Screen Length 5 ft
Depth to Water 11.78 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.680854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 50 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:54:23	6305.06	23.02	4.92	57.76	2.04	11.85	2.00	99.78
Last 5	08:59:23	6605.06	23.03	4.92	57.63	1.96	11.85	2.00	99.85
Last 5	09:04:35	6917.05	23.07	4.92	57.64	1.95	11.85	2.00	100.42
Last 5	09:09:49	7231.06	23.04	4.93	57.67	1.87	11.85	2.02	100.25
Last 5	09:14:49	7531.06	23.07	4.93	57.70	1.90	11.85	2.00	100.33
Variance 0			0.04	-0.00	0.01			-0.00	0.57
Variance 1			-0.04	0.00	0.02			0.02	-0.17
Variance 2			0.03	0.00	0.04			-0.01	0.08

Notes

Sample time @ 0920. Sunny 65.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-23 09:59:36

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 37. ft

Well Information:

Well ID MW-15
Well diameter 2 in
Well Total Depth 39.5 ft
Screen Length 5 ft
Depth to Water 11.20 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6674637 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.1 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:36:49	600.06	23.63	4.79	42.50	2.86	11.30	3.52	109.66
Last 5	09:41:49	900.06	23.61	4.79	42.63	2.35	11.30	3.60	110.32
Last 5	09:46:49	1200.06	23.72	4.79	42.58	2.02	11.30	3.60	111.70
Last 5	09:51:49	1500.06	23.79	4.78	42.58	1.76	11.30	3.60	113.37
Last 5	09:56:49	1800.06	23.88	4.77	42.57	1.70	11.30	3.59	114.56
Variance 0			0.11	0.00	-0.04			-0.00	1.37
Variance 1			0.07	-0.01	-0.00			0.00	1.68
Variance 2			0.09	-0.01	-0.01			-0.01	1.18

Notes

Sample time @ 1000. Sunny 68. DUP-05 @ 0900.

Grab Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-91959-1
Client Project/Site: CCR - Plant Daniel

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
7/11/2019 3:26:41 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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.

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	9
QC Sample Results	10
QC Association Summary	11
Chain of Custody	12
Receipt Checklists	13

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Job ID: 180-91959-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-91959-1

Comments

No additional comments.

Receipt

The sample was received on 6/27/2019 3:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

ANions

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Laboratory: Eurofins TestAmerica, Pittsburgh

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
Arkansas DEQ	State Program	6	88-0690	06-27-20
California	State		2891	04-30-20
California	State Program	9	2891	04-30-20
Connecticut	State		PH-0688	09-30-20
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-20
Florida	NELAP		E871008	06-30-20
Illinois	NELAP	5	200005	06-30-20
Illinois	NELAP		004375	06-30-20
Kansas	NELAP	7	E-10350	01-31-20
Kentucky (UST)	State Program	4	162013	04-30-20
Kentucky (WW)	State Program	4	KY98043	12-31-19
Louisiana	NELAP	6	04041	06-30-20
Minnesota	NELAP Secondary AB	5	042-999-482	12-31-19
Nevada	State		PA00164	07-31-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-20
New York	NELAP	2	11182	03-31-20
New York	NELAP		11182	04-01-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Oregon	NELAP		PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
Pennsylvania	NELAP		02-00416	04-30-20
Rhode Island	State		LAO00362	12-30-19
Rhode Island	State Program	1	LAO00362	12-30-19
South Carolina	State Program	4	89014	04-30-20
Texas	NELAP	6	T104704528-15-2	03-31-20
Texas	NELAP		T104704528	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
US Fish & Wildlife	US Federal Programs		058448	07-31-20
USDA	Federal		P-Soil-01	06-26-22
Utah	NELAP	8	PA001462015-4	05-31-20
Virginia	NELAP	3	460189	09-14-19
Virginia	NELAP		10043	09-14-19
West Virginia DEP	State		142	01-31-20
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State		998027800	08-31-19
Wisconsin	State Program	5	998027800	08-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-91959-1	MW-16	Water	06/25/19 13:20	06/27/19 15:00	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PIT

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Client Sample ID: MW-16

Lab Sample ID: 180-91959-1

Date Collected: 06/25/19 13:20

Matrix: Water

Date Received: 06/27/19 15:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			284094	07/08/19 06:03	MJH	TAL PIT

Instrument ID: CHICS2100B

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

MJH = Matthew Hartman

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Client Sample ID: MW-16
Date Collected: 06/25/19 13:20
Date Received: 06/27/19 15:00

Lab Sample ID: 180-91959-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4		1.0	0.71	mg/L			07/08/19 06:03	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-284094/6
Matrix: Water
Analysis Batch: 284094

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			07/08/19 04:27	1

Lab Sample ID: LCS 180-284094/5
Matrix: Water
Analysis Batch: 284094

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.8		mg/L		99	90 - 110

Lab Sample ID: 180-91959-1 MS
Matrix: Water
Analysis Batch: 284094

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.4		25.0	33.9		mg/L		98	80 - 120

Lab Sample ID: 180-91959-1 MSD
Matrix: Water
Analysis Batch: 284094

Client Sample ID: MW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.4		25.0	34.2		mg/L		99	80 - 120	1	20

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-91959-1

HPLC/IC

Analysis Batch: 284094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-91959-1	MW-16	Total/NA	Water	300.0	
MB 180-284094/6	Method Blank	Total/NA	Water	300.0	
LCS 180-284094/5	Lab Control Sample	Total/NA	Water	300.0	
180-91959-1 MS	MW-16	Total/NA	Water	300.0	
180-91959-1 MSD	MW-16	Total/NA	Water	300.0	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-91959-1

SDG Number:

Login Number: 91959

List Number: 1

Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Product Name: Low-Flow System

Date: 2019-06-25 13:17:40

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 25.8 ft

Well Information:

Well ID MW-16
Well diameter 2 in
Well Total Depth 28.3 ft
Screen Length 5 ft
Depth to Water 10.30 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6362198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:55:44	300.03	26.18	4.63	48.46	0.89	10.40	0.14	252.15
Last 5	13:00:44	600.02	26.19	4.59	47.80	0.84	10.40	0.10	258.48
Last 5	13:05:44	900.02	26.02	4.57	47.77	0.78	10.40	0.10	265.06
Last 5	13:10:44	1200.02	25.93	4.57	47.49	0.75	10.40	0.09	269.83
Last 5	13:15:44	1500.02	25.92	4.57	47.34	0.77	10.40	0.08	274.08
Variance 0			-0.17	-0.02	-0.03			-0.01	6.59
Variance 1			-0.08	0.00	-0.29			-0.01	4.77
Variance 2			-0.02	0.00	-0.15			-0.01	4.25

Notes

Sample time @ 1320. Sunny 93.

Grab Samples

2nd
Semi-Annual
Monitoring Event

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-96432-1
Laboratory Sample Delivery Group: 1
Client Project/Site: CCR - Plant Daniel

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
10/23/2019 9:41:48 PM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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.

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	10
QC Sample Results	13
QC Association Summary	15
Chain of Custody	16
Receipt Checklists	17

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Job ID: 180-96432-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-96432-1

Comments

No additional comments.

Receipt

The samples were received on 9/28/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
 SDG: 1

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-19
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-19
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	12-31-19
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-30-19
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	01-31-20
Wisconsin	State	998027800	08-31-20



Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-96432-1	MW-11	Water	09/27/19 07:25	09/28/19 09:30	
180-96432-2	MW-14	Water	09/26/19 13:47	09/28/19 09:30	
180-96432-3	MW-15	Water	09/26/19 15:10	09/28/19 09:30	
180-96432-4	MW-16	Water	09/26/19 07:20	09/28/19 09:30	
180-96432-5	MW-17	Water	09/26/19 10:38	09/28/19 09:30	
180-96432-6	MW-18	Water	09/26/19 11:15	09/28/19 09:30	
180-96432-7	MW-19	Water	09/26/19 10:05	09/28/19 09:30	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT

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 PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Client Sample ID: MW-11

Lab Sample ID: 180-96432-1

Date Collected: 09/27/19 07:25

Matrix: Water

Date Received: 09/28/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 11:13	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 21:43	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Client Sample ID: MW-14

Lab Sample ID: 180-96432-2

Date Collected: 09/26/19 13:47

Matrix: Water

Date Received: 09/28/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 11:29	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 21:46	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Client Sample ID: MW-15

Lab Sample ID: 180-96432-3

Date Collected: 09/26/19 15:10

Matrix: Water

Date Received: 09/28/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 12:15	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 21:56	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Client Sample ID: MW-16

Lab Sample ID: 180-96432-4

Date Collected: 09/26/19 07:20

Matrix: Water

Date Received: 09/28/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 13:04	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 22:00	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Client Sample ID: MW-17

Date Collected: 09/26/19 10:38

Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 13:19	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 22:03	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Client Sample ID: MW-18

Date Collected: 09/26/19 11:15

Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 13:35	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 22:07	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Client Sample ID: MW-19

Date Collected: 09/26/19 10:05

Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1 Instrument ID: CHIC2100A		1			294359	10/10/19 13:51	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	293601	10/03/19 09:29	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			295742	10/22/19 22:10	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	293664	10/03/19 14:51	AVS	TAL PIT

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

Batch Type: Analysis

AVS = Abbey Smith

MJH = Matthew Hartman

RSK = Robert Kurtz

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Client Sample ID: MW-11
Date Collected: 09/27/19 07:25
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-1
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.4		1.00	0.715	mg/L			10/10/19 11:13	1
Fluoride	0.0438	J	0.100	0.0263	mg/L			10/10/19 11:13	1
Sulfate	2.36		1.00	0.380	mg/L			10/10/19 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1.99		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 21:43	1
Boron	0.0443	J	0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 21:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	50.0		10.0	10.0	mg/L			10/03/19 14:51	1

Client Sample ID: MW-14
Date Collected: 09/26/19 13:47
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-2
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.35		1.00	0.715	mg/L			10/10/19 11:29	1
Fluoride	0.0272	J	0.100	0.0263	mg/L			10/10/19 11:29	1
Sulfate	1.95		1.00	0.380	mg/L			10/10/19 11:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2.40		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 21:46	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 21:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	39.0		10.0	10.0	mg/L			10/03/19 14:51	1

Client Sample ID: MW-15
Date Collected: 09/26/19 15:10
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-3
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.66		1.00	0.715	mg/L			10/10/19 12:15	1
Fluoride	<0.0263		0.100	0.0263	mg/L			10/10/19 12:15	1
Sulfate	1.20		1.00	0.380	mg/L			10/10/19 12:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1.08		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 21:56	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 21:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32.0		10.0	10.0	mg/L			10/03/19 14:51	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Client Sample ID: MW-16
Date Collected: 09/26/19 07:20
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-4
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.54		1.00	0.715	mg/L			10/10/19 13:04	1
Fluoride	0.0302	J	0.100	0.0263	mg/L			10/10/19 13:04	1
Sulfate	2.28		1.00	0.380	mg/L			10/10/19 13:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.758		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 22:00	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 22:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27.0		10.0	10.0	mg/L			10/03/19 14:51	1

Client Sample ID: MW-17
Date Collected: 09/26/19 10:38
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-5
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.70		1.00	0.715	mg/L			10/10/19 13:19	1
Fluoride	0.0263	J	0.100	0.0263	mg/L			10/10/19 13:19	1
Sulfate	2.96		1.00	0.380	mg/L			10/10/19 13:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1.11		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 22:03	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 22:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	25.0		10.0	10.0	mg/L			10/03/19 14:51	1

Client Sample ID: MW-18
Date Collected: 09/26/19 11:15
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-6
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.09		1.00	0.715	mg/L			10/10/19 13:35	1
Fluoride	0.0366	J	0.100	0.0263	mg/L			10/10/19 13:35	1
Sulfate	4.23		1.00	0.380	mg/L			10/10/19 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	0.631		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 22:07	1
Boron	0.0420	J	0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 22:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30.0		10.0	10.0	mg/L			10/03/19 14:51	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
 SDG: 1

Client Sample ID: MW-19
Date Collected: 09/26/19 10:05
Date Received: 09/28/19 09:30

Lab Sample ID: 180-96432-7
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.03		1.00	0.715	mg/L			10/10/19 13:51	1
Fluoride	0.0287	J	0.100	0.0263	mg/L			10/10/19 13:51	1
Sulfate	2.10		1.00	0.380	mg/L			10/10/19 13:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1.24		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 22:10	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 22:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	29.0		10.0	10.0	mg/L			10/03/19 14:51	1



QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-294359/6
Matrix: Water
Analysis Batch: 294359

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.715		1.00	0.715	mg/L			10/10/19 06:03	1
Fluoride	<0.0263		0.100	0.0263	mg/L			10/10/19 06:03	1
Sulfate	<0.380		1.00	0.380	mg/L			10/10/19 06:03	1

Lab Sample ID: LCS 180-294359/5
Matrix: Water
Analysis Batch: 294359

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.94		mg/L		100	90 - 110
Fluoride	1.25	1.292		mg/L		103	90 - 110
Sulfate	25.0	24.99		mg/L		100	90 - 110

Lab Sample ID: 180-96432-3 MS
Matrix: Water
Analysis Batch: 294359

Client Sample ID: MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.66		25.0	33.54		mg/L		103	80 - 120
Fluoride	<0.0263		1.25	1.344		mg/L		107	80 - 120
Sulfate	1.20		25.0	26.90		mg/L		103	80 - 120

Lab Sample ID: 180-96432-3 MSD
Matrix: Water
Analysis Batch: 294359

Client Sample ID: MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.66		25.0	32.91		mg/L		101	80 - 120	2	20
Fluoride	<0.0263		1.25	1.327		mg/L		106	80 - 120	1	20
Sulfate	1.20		25.0	26.24		mg/L		100	80 - 120	2	20

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-293601/1-A
Matrix: Water
Analysis Batch: 295742

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 293601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.127		0.500	0.127	mg/L		10/03/19 09:29	10/22/19 21:03	1
Boron	<0.0386		0.0800	0.0386	mg/L		10/03/19 09:29	10/22/19 21:03	1

Lab Sample ID: LCS 180-293601/2-A
Matrix: Water
Analysis Batch: 295742

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 293601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	25.0	26.30		mg/L		105	80 - 120
Boron	1.25	1.260		mg/L		101	80 - 120

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
 SDG: 1

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

Lab Sample ID: MB 180-293664/2
 Matrix: Water
 Analysis Batch: 293664

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/03/19 14:51	1

Lab Sample ID: LCS 180-293664/1
 Matrix: Water
 Analysis Batch: 293664

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	633	642.0		mg/L		101	80 - 120

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-96432-1
SDG: 1

HPLC/IC

Analysis Batch: 294359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-96432-1	MW-11	Total/NA	Water	EPA 300.0 R2.1	
180-96432-2	MW-14	Total/NA	Water	EPA 300.0 R2.1	
180-96432-3	MW-15	Total/NA	Water	EPA 300.0 R2.1	
180-96432-4	MW-16	Total/NA	Water	EPA 300.0 R2.1	
180-96432-5	MW-17	Total/NA	Water	EPA 300.0 R2.1	
180-96432-6	MW-18	Total/NA	Water	EPA 300.0 R2.1	
180-96432-7	MW-19	Total/NA	Water	EPA 300.0 R2.1	
MB 180-294359/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-294359/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-96432-3 MS	MW-15	Total/NA	Water	EPA 300.0 R2.1	
180-96432-3 MSD	MW-15	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 293601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-96432-1	MW-11	Total Recoverable	Water	3005A	
180-96432-2	MW-14	Total Recoverable	Water	3005A	
180-96432-3	MW-15	Total Recoverable	Water	3005A	
180-96432-4	MW-16	Total Recoverable	Water	3005A	
180-96432-5	MW-17	Total Recoverable	Water	3005A	
180-96432-6	MW-18	Total Recoverable	Water	3005A	
180-96432-7	MW-19	Total Recoverable	Water	3005A	
MB 180-293601/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-293601/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 295742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-96432-1	MW-11	Total Recoverable	Water	EPA 6020	293601
180-96432-2	MW-14	Total Recoverable	Water	EPA 6020	293601
180-96432-3	MW-15	Total Recoverable	Water	EPA 6020	293601
180-96432-4	MW-16	Total Recoverable	Water	EPA 6020	293601
180-96432-5	MW-17	Total Recoverable	Water	EPA 6020	293601
180-96432-6	MW-18	Total Recoverable	Water	EPA 6020	293601
180-96432-7	MW-19	Total Recoverable	Water	EPA 6020	293601
MB 180-293601/1-A	Method Blank	Total Recoverable	Water	EPA 6020	293601
LCS 180-293601/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	293601

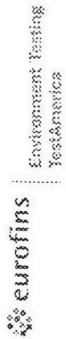
General Chemistry

Analysis Batch: 293664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-96432-1	MW-11	Total/NA	Water	SM 2540C	
180-96432-2	MW-14	Total/NA	Water	SM 2540C	
180-96432-3	MW-15	Total/NA	Water	SM 2540C	
180-96432-4	MW-16	Total/NA	Water	SM 2540C	
180-96432-5	MW-17	Total/NA	Water	SM 2540C	
180-96432-6	MW-18	Total/NA	Water	SM 2540C	
180-96432-7	MW-19	Total/NA	Water	SM 2540C	
MB 180-293664/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-293664/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

Chain of Custody Record



Environmental Monitoring
 TestAmerica

Client Information Client Contact: Rick Hagedorfer Company: RDH Environmental Services Inc Address: 5720 Dove Drive City: Pace State, Zip: FL, 32571 Phone: 205-992-5417 (Tel) Email: rickhagedorfer@gmail.com Project Name: CCR - Plant Daniel NAMU CCR Samples Site:		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com Carrier Tracking No(s): Lab No: 180-54715-10706.1 Page: Page 1 of 1 Job #:																						
Due Date Requested: TAT Requested (days): PO #: Purchase Order Requested WO #:		Analysis Requested																						
Sample: Philip Evans Phone: 850-336-0192		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 Other:																						
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air) Preservation Code:		Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) Total Number of Containers Special																						
MW-11	9/27/19	0725	G	Water	Water																			
MW-14	9/26/19	1347		Water	Water																			
MW-15		1510		Water	Water																			
MW-16		0720		Water	Water																			
MW-17		1038		Water	Water																			
MW-18		1115		Water	Water																			
MW-19	9/26/19	1005		Water	Water																			
				Water	Water																			
				Water	Water																			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																						
Empty Kit Relinquished by:		Method of Shipment:																						
Relinquished by: [Signature]		Date/Time: 9/28-19 9:38																						
Relinquished by:		Date/Time:																						
Relinquished by:		Date/Time:																						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:																						



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-96432-1

SDG Number: 1

Login Number: 96432

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	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?	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Product Name: Low-Flow System

Date: 2019-09-26 07:19:46

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 25.8 ft

Well Information:

Well ID MW-16
Well diameter 2 in
Well Total Depth 28.3 ft
Screen Length 5 ft
Depth to Water 10.83 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6362198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:57:14	600.03	23.03	4.62	38.34	0.64	10.90	0.15	201.18
Last 5	07:02:15	901.03	23.02	4.60	37.51	0.62	10.90	0.14	186.81
Last 5	07:07:15	1201.03	23.04	4.60	36.82	0.65	10.90	0.13	178.45
Last 5	07:12:15	1501.03	23.07	4.60	36.33	0.60	10.90	0.13	175.06
Last 5	07:17:16	1802.03	23.07	4.62	36.08	0.54	10.90	0.13	172.72
Variance 0			0.02	0.00	-0.69			-0.01	-8.36
Variance 1			0.02	0.00	-0.48			-0.00	-3.40
Variance 2			0.00	0.01	-0.25			-0.00	-2.34

Notes

Sample time @ 0720. Sunny 78.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 10:05:35

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 27.4 ft

Well Information:

Well ID MW-19
Well diameter 2 in
Well Total Depth 32.4 ft
Screen Length 10 ft
Depth to Water 19.75 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6362198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:43:34	600.03	22.89	5.37	37.94	2.40	19.80	0.15	51.92
Last 5	09:48:35	901.03	22.89	5.28	34.05	1.89	19.80	0.13	49.83
Last 5	09:53:35	1201.03	22.89	5.20	33.29	1.67	19.80	0.12	48.98
Last 5	09:58:36	1502.10	22.92	5.18	32.20	1.72	19.80	0.11	46.82
Last 5	10:03:36	1802.05	22.95	5.19	31.92	1.70	19.80	0.11	44.75
Variance 0			0.00	-0.08	-0.76			-0.01	-0.85
Variance 1			0.03	-0.02	-1.09			-0.01	-2.17
Variance 2			0.03	0.01	-0.27			-0.00	-2.07

Notes

Sample time @ 1005. Sunny 90.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 10:37:11

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 26 ft

Well Information:

Well ID MW-17
Well diameter 2 in
Well Total Depth 28.5 ft
Screen Length 5 ft
Depth to Water 8.12 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6139027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:25:14	300.03	23.34	5.03	38.98	2.07	8.20	0.16	106.67
Last 5	10:30:14	600.03	23.31	5.02	39.01	1.95	8.20	0.15	101.96
Last 5	10:35:14	900.03	23.35	5.01	39.01	1.88	8.20	0.15	98.99
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.03	-0.01	0.03			-0.01	-4.71
Variance 2			0.04	-0.00	-0.00			0.00	-2.97

Notes

Sample time @ 1038. Sunny 92.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 11:11:45

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 41.9 ft

Well Information:

Well ID MW-18
Well diameter 2 in
Well Total Depth 44.4 ft
Screen Length 5 ft
Depth to Water 17.75 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.680854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:55:19	300.04	22.62	4.71	39.62	1.20	17.82	0.37	143.40
Last 5	11:00:19	600.03	22.40	4.72	39.87	1.08	17.82	0.26	136.71
Last 5	11:05:19	900.03	22.36	4.71	39.76	0.96	17.82	0.24	133.90
Last 5	11:10:19	1200.03	22.45	4.71	39.76	0.92	17.82	0.22	132.17
Last 5									
Variance 0			-0.23	0.01	0.25			-0.11	-6.70
Variance 1			-0.04	-0.01	-0.11			-0.02	-2.81
Variance 2			0.09	0.00	0.00			-0.02	-1.73

Notes

Sample time @ 1115. Sunny 92.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 13:46:46

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 45 ft

Pump placement from TOC 38.2 ft

Well Information:

Well ID MW-14
Well diameter 2 in
Well Total Depth 40.7 ft
Screen Length 5 ft
Depth to Water 13.37 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.680854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 56 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:25:34	7206.04	22.74	5.00	43.77	2.33	13.45	3.13	164.49
Last 5	13:30:34	7506.04	22.76	4.99	43.81	2.10	13.45	3.16	164.93
Last 5	13:35:35	7807.04	22.71	4.99	43.90	1.90	13.45	3.14	164.95
Last 5	13:40:35	8107.04	22.80	4.99	43.70	1.86	13.45	3.13	165.39
Last 5	13:45:38	8410.04	22.80	4.99	43.65	1.84	13.45	3.13	165.39
Variance 0			-0.05	-0.00	0.10			-0.02	0.02
Variance 1			0.09	-0.00	-0.20			-0.01	0.44
Variance 2			0.00	-0.00	-0.05			0.00	0.00

Notes

Sample time @ 1347. Sunny 92.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 15:05:20

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel CCR NAMU
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 42 ft

Pump placement from TOC 37 ft

Well Information:

Well ID MW-15
Well diameter 2 in
Well Total Depth 39.5 ft
Screen Length 5 ft
Depth to Water 12.72 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6674637 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	14:43:18	1500.04	23.51	4.84	37.37	2.89	12.80	1.78	176.26
Last 5	14:48:18	1800.04	23.52	4.84	37.63	2.64	12.80	1.80	175.06
Last 5	14:53:18	2100.04	23.62	4.84	37.58	2.16	12.80	1.79	174.42
Last 5	14:58:18	2400.04	23.71	4.84	37.44	1.99	12.80	1.79	173.65
Last 5	15:03:19	2701.04	23.53	4.84	37.42	1.92	12.80	1.79	173.14
Variance 0			0.10	0.00	-0.05			-0.01	-0.64
Variance 1			0.08	0.00	-0.14			-0.00	-0.78
Variance 2			-0.17	-0.00	-0.02			0.00	-0.51

Notes

Sample time @ 1510. Sunny 95.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-27 07:24:25

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 40 ft

Pump placement from TOC 30.5 ft

Well Information:

Well ID MW-11
Well diameter 2 in
Well Total Depth 33.0 ft
Screen Length 5 ft
Depth to Water 14.10 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6585369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 67 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	06:59:30	900.04	21.68	4.58	62.18	3.60	18.12	0.46	194.65
Last 5	07:04:30	1200.04	21.69	4.59	60.90	2.98	18.87	0.40	187.70
Last 5	07:09:30	1500.04	21.70	4.60	60.04	2.10	19.40	0.36	182.02
Last 5	07:14:31	1801.04	21.78	4.60	59.15	1.82	19.58	0.26	178.35
Last 5	07:19:32	2102.04	21.79	4.61	58.81	1.80	19.65	0.25	176.10
Variance 0			0.00	0.01	-0.86			-0.04	-5.68
Variance 1			0.08	0.00	-0.89			-0.10	-3.67
Variance 2			0.01	0.01	-0.34			-0.01	-2.25

Notes

Sample time @ 0725. Sunny 78.

Grab Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-100128-1
Client Project/Site: CCR - Plant Daniel

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
12/31/2019 7:55:12 AM

Veronica Bortot, Senior Project Manager
(412)963-2435
veronica.bortot@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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.

PA Lab ID: 02-00416



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	9
QC Sample Results	10
QC Association Summary	11
Chain of Custody	12
Receipt Checklists	14

Case Narrative

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Job ID: 180-100128-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-100128-1

Comments

No additional comments.

Receipt

The samples were received on 12/18/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Accreditation/Certification Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-20
California	State	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Georgia	State	PA 02-00416	04-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-19
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-19
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State	434	12-31-19
North Dakota	State	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20
Pennsylvania	NELAP	02-00416	04-30-20
South Carolina	State	89014	04-30-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	10043	09-15-20
West Virginia DEP	State	142	01-31-20
Wisconsin	State	998027800	08-31-20

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-100128-1	MW-19	Water	12/17/19 14:00	12/18/19 10:30	
180-100128-2	DUP-01	Water	12/17/19 13:00	12/18/19 10:30	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

Method Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Method	Method Description	Protocol	Laboratory
EPA 6020	Metals (ICP/MS)	SW846	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT

Protocol References:

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

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Client Sample ID: MW-19

Date Collected: 12/17/19 14:00

Date Received: 12/18/19 10:30

Lab Sample ID: 180-100128-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	302054	12/19/19 20:32	MWW	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			302700	12/24/19 16:43	WTR	TAL PIT
Instrument ID: NEMO										

Client Sample ID: DUP-01

Date Collected: 12/17/19 13:00

Date Received: 12/18/19 10:30

Lab Sample ID: 180-100128-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	302054	12/19/19 20:32	MWW	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			302700	12/24/19 16:50	WTR	TAL PIT
Instrument ID: NEMO										

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

MWW = Margaret Wanyoike

Batch Type: Analysis

WTR = Bill Reinheimer

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Client Sample ID: MW-19
Date Collected: 12/17/19 14:00
Date Received: 12/18/19 10:30

Lab Sample ID: 180-100128-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	707		500	127	ug/L		12/19/19 20:32	12/24/19 16:43	1

Client Sample ID: DUP-01
Date Collected: 12/17/19 13:00
Date Received: 12/18/19 10:30

Lab Sample ID: 180-100128-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	687		500	127	ug/L		12/19/19 20:32	12/24/19 16:50	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-302054/1-A
Matrix: Water
Analysis Batch: 302700

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 302054

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<127		500	127	ug/L		12/19/19 20:32	12/24/19 16:21	1

Lab Sample ID: LCS 180-302054/2-A
Matrix: Water
Analysis Batch: 302700

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 302054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	25000	28760		ug/L		115	80 - 120



QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant Daniel

Job ID: 180-100128-1

Metals

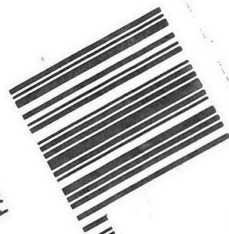
Prep Batch: 302054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-100128-1	MW-19	Total Recoverable	Water	3005A	
180-100128-2	DUP-01	Total Recoverable	Water	3005A	
MB 180-302054/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-302054/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 302700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-100128-1	MW-19	Total Recoverable	Water	EPA 6020	302054
180-100128-2	DUP-01	Total Recoverable	Water	EPA 6020	302054
MB 180-302054/1-A	Method Blank	Total Recoverable	Water	EPA 6020	302054
LCS 180-302054/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	302054

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



PA-US PTT
 15238 AHS
MED - 18 DEC 10:30A
PRIORITY OVERNIGHT

TK# 0201
7190 3332 5691
XH AGCA

Thermometer ID
 Unchecked temp
 Initials
 CF
 PT-M-SR-001 receive 1/16/18

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-100128-1

Login Number: 100128

List Source: Eurofins TestAmerica, Pittsburgh

List Number: 1

Creator: Say, Thomas C

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

Product Name: Low-Flow System

Date: 2019-12-17 14:00:06

Project Information:

Operator Name Philip Evans
Company Name RDH Environmental
Project Name Plant Daniel NAMU CCR
Site Name Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 417744
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 35 ft

Pump placement from TOC 27.4 ft

Well Information:

Well ID MW-19
Well diameter 2 in
Well Total Depth 32.4 ft
Screen Length 5 ft
Depth to Water 19.10 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.6362198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:37:53	600.02	21.73	5.07	34.96	2.05	19.17	0.14	-0.65
Last 5	13:42:53	900.02	21.82	5.06	34.44	1.94	19.17	0.14	-0.55
Last 5	13:47:53	1200.02	21.86	5.06	34.40	1.94	19.17	0.14	0.41
Last 5	13:52:53	1500.02	21.86	5.07	34.39	1.87	19.17	0.14	0.34
Last 5	13:57:57	1804.02	21.84	5.07	34.39	1.88	19.17	0.14	0.39
Variance 0			0.05	0.00	-0.04			0.00	0.96
Variance 1			-0.01	0.01	-0.01			0.00	-0.07
Variance 2			-0.02	-0.00	-0.00			0.00	0.05

Notes

Sample time @ 1400. Cloudy 48. DUP-01@ fake time 1300.

Grab Samples

Appendix B

1st
Semi-Annual
Monitoring Event

Intrawell Prediction Limit - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/3/2020, 9:43 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-16	1.029	n/a	4/22/2019	1.09	Yes	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	9.095	n/a	6/25/2019	9.4	Yes	8	0	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-17	2.502	n/a	4/22/2019	2.96	Yes	8	25	In(x)	0.00188	Param Intra 1 of 2

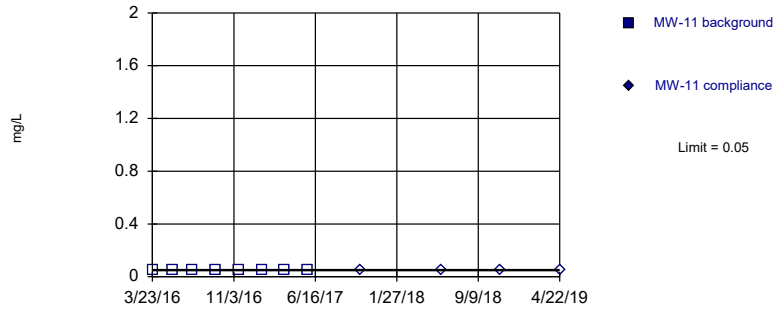
Intrawell Prediction Limit - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/3/2020, 9:43 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.05	n/a	4/22/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.05	n/a	4/23/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.05	n/a	4/22/2019	0.05ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.05	n/a	4/23/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-16	0.05	n/a	4/22/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-17	0.05	n/a	4/22/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-19	0.05	n/a	4/22/2019	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.142	n/a	4/22/2019	1.71	No	8	12.5	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	7.146	n/a	4/23/2019	2.76	No	8	12.5	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-18	1.181	n/a	4/22/2019	0.531	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.547	n/a	4/23/2019	1.01	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.029	n/a	4/22/2019	1.09	Yes	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.466	n/a	4/22/2019	0.946	No	8	0	ln(x)	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-19	0.9747	n/a	4/22/2019	0.634	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-11	15.36	n/a	4/22/2019	13.3	No	23	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	14.12	n/a	4/23/2019	9.3	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	12.17	n/a	4/22/2019	6.17	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.93	n/a	4/23/2019	6.75	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	9.095	n/a	6/25/2019	9.4	Yes	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	9.57	n/a	4/22/2019	6.64	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	6.492	n/a	4/22/2019	4.91	No	8	12.5	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	4/22/2019	0.0353	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	4/23/2019	0.0335	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	4/22/2019	0.0311	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	4/23/2019	0.0275	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	4/22/2019	0.029	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.2	n/a	4/22/2019	0.2ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.2	n/a	4/22/2019	0.2ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
pH (pH)	MW-11	5.057	4.388	4/22/2019	4.67	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-14	5.87	4.533	4/23/2019	4.93	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-18	4.783	4.382	4/22/2019	4.64	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-15	5.137	4.186	4/23/2019	4.77	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-16	4.903	4.332	4/22/2019	4.49	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-17	5.371	4.559	4/22/2019	4.94	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-19	5.66	4.608	4/22/2019	4.97	No	8	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	10.35	n/a	4/22/2019	2.22	No	23	17.39	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	4/23/2019	1.99	No	8	50	n/a	0.02144	NP Intra (normality) ...
Sulfate (mg/L)	MW-18	5.706	n/a	4/22/2019	4.66	No	8	12.5	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	4/23/2019	1.43	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	4/22/2019	2.52	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	2.502	n/a	4/22/2019	2.96	Yes	8	25	ln(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	4/22/2019	2.09	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Total Dissolved Solids...	MW-11	98.3	n/a	4/22/2019	50	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-14	86.16	n/a	4/23/2019	48	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-18	58.72	n/a	4/22/2019	36	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-15	57.45	n/a	4/23/2019	34	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-16	61.07	n/a	4/22/2019	46	No	8	37.5	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-17	42.64	n/a	4/22/2019	24	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-19	42.59	n/a	4/22/2019	31	No	8	12.5	No	0.00188	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

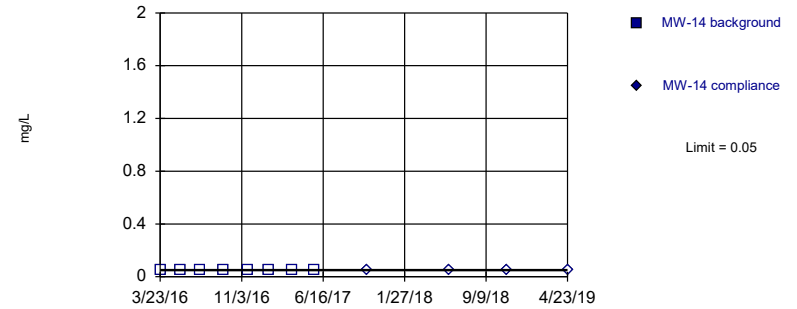


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:40 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

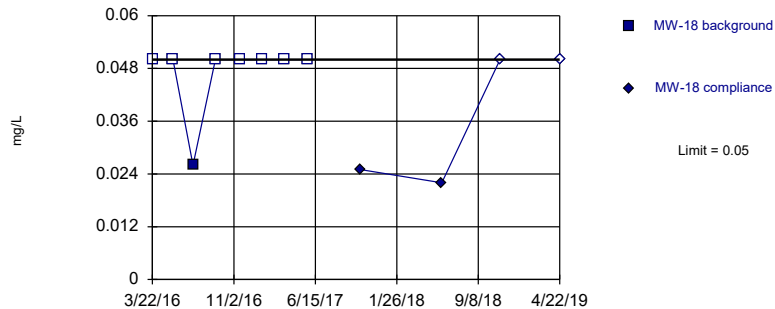


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:40 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

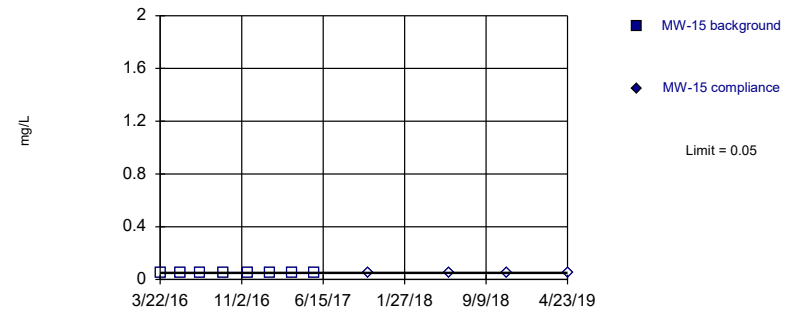


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:40 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

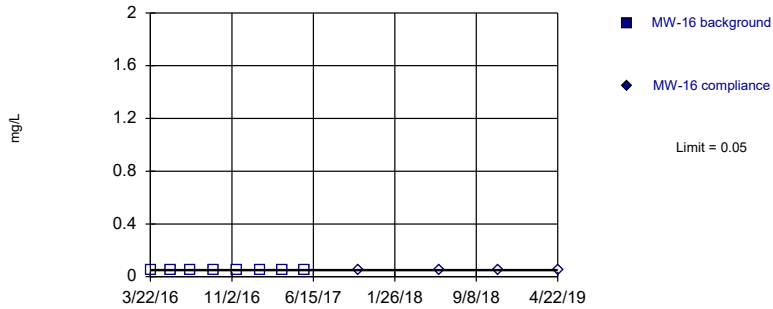
Constituent: Boron Analysis Run 1/3/2020 9:43 AM View: Intrawell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15
3/22/2016					<0.05		<0.05	
3/23/2016	<0.05		<0.05					
5/18/2016	<0.05		<0.05		<0.05		<0.05	
7/12/2016	<0.05		<0.05		0.026 (J)		<0.05	
9/12/2016	<0.05		<0.05		<0.05		<0.05	
11/18/2016	<0.05				<0.05			
11/19/2016			<0.05				<0.05	
1/18/2017			<0.05		<0.05			
1/19/2017	<0.05						<0.05	
3/21/2017					<0.05		<0.05	
3/22/2017	<0.05		<0.05					
5/23/2017							<0.05	
5/24/2017	<0.05		<0.05		<0.05			
10/17/2017		<0.05		<0.05		0.025 (J)		<0.05
5/31/2018		<0.05				0.022 (J)		
6/1/2018				<0.05				<0.05
11/7/2018		<0.05		<0.05				<0.05
11/8/2018						<0.05		
4/22/2019		<0.05				<0.05		
4/23/2019				<0.05				<0.05

Within Limit

Prediction Limit
Intrawell Non-parametric

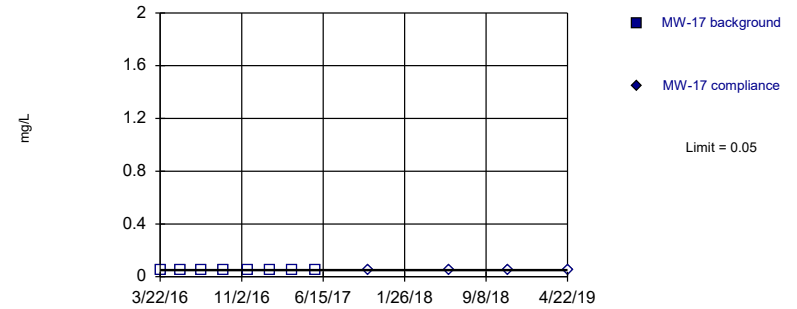


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

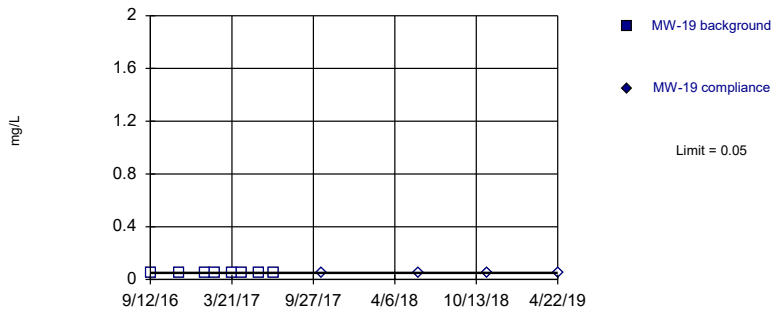


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

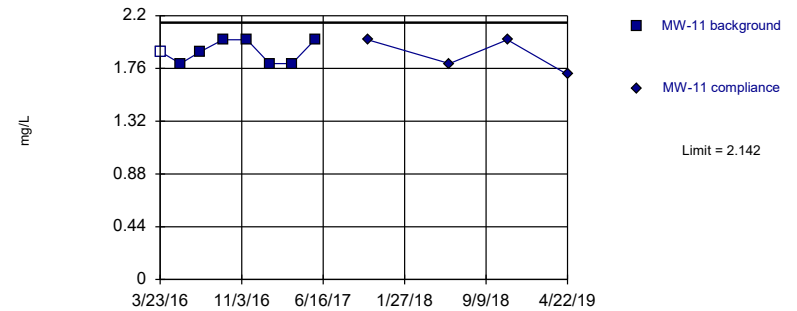


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.9, Std. Dev.=0.09258, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8007, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

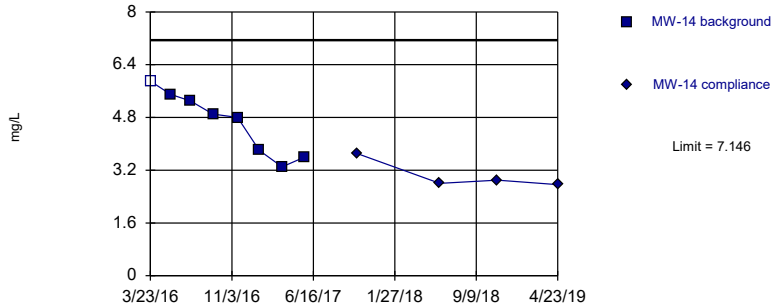
Constituent: Boron, Calcium Analysis Run 1/3/2020 9:43 AM View: Intrawell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16	MW-17	MW-17	MW-19	MW-19	MW-11	MW-11
3/22/2016	<0.05		<0.05					
3/23/2016							<1.9	
5/18/2016	<0.05		<0.05				1.8	
7/11/2016	<0.05							
7/12/2016			<0.05				1.9	
9/12/2016			<0.05		<0.05		2	
9/13/2016	<0.05							
11/17/2016	<0.05							
11/18/2016			<0.05		<0.05		2	
1/18/2017	<0.05		<0.05		<0.05			
1/19/2017							1.8	
2/10/2017					<0.05			
3/21/2017	<0.05		<0.05		<0.05			
3/22/2017							1.8	
4/14/2017					<0.05			
5/23/2017	<0.05				<0.05			
5/24/2017			<0.05				2	
6/26/2017					<0.05			
10/17/2017		<0.05		<0.05		<0.05		2
5/31/2018		<0.05		<0.05		<0.05		1.8
11/7/2018								2
11/8/2018		<0.05		<0.05		<0.05		
4/22/2019		<0.05		<0.05		<0.05		1.71

Within Limit

Prediction Limit
Intrawell Parametric

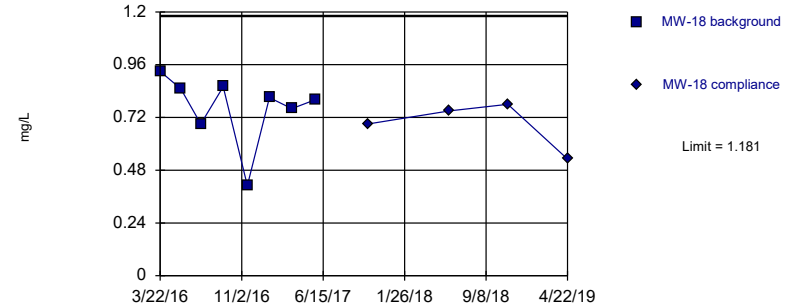


Background Data Summary: Mean=4.638, Std. Dev.=0.9591, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.926, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

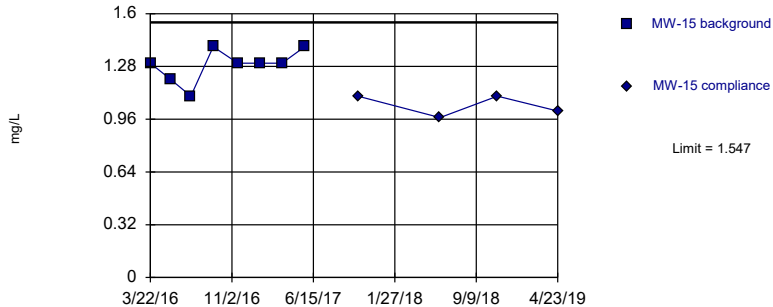


Background Data Summary: Mean=0.7638, Std. Dev.=0.1596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8298, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

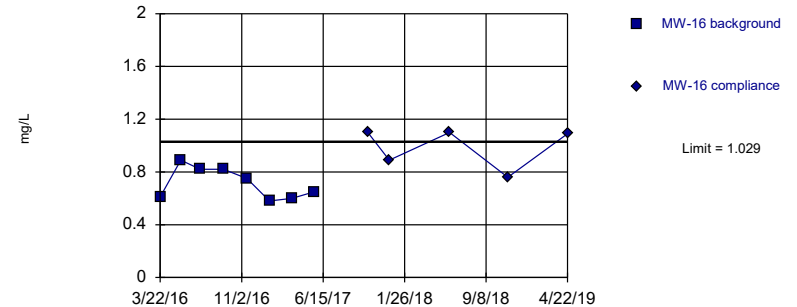


Background Data Summary: Mean=1.288, Std. Dev.=0.0991, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.872, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.715, Std. Dev.=0.1199, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

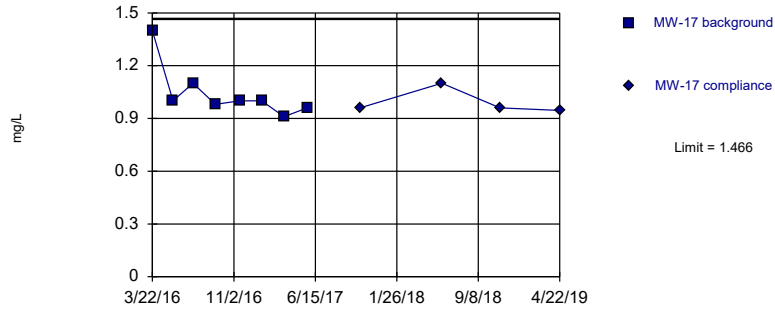
Prediction Limit

Constituent: Calcium Analysis Run 1/3/2020 9:43 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16
3/22/2016			0.93		1.3		0.61	
3/23/2016	<5.9 (*)							
5/18/2016	5.5		0.85		1.2		0.89	
7/11/2016							0.82	
7/12/2016	5.3		0.69		1.1			
9/12/2016	4.9		0.86		1.4			
9/13/2016							0.82	
11/17/2016							0.75	
11/18/2016			0.41					
11/19/2016	4.8				1.3			
1/18/2017	3.8		0.81				0.58	
1/19/2017					1.3			
3/21/2017			0.76		1.3		0.6	
3/22/2017	3.3							
5/23/2017					1.4		0.65	
5/24/2017	3.6		0.8					
10/17/2017		3.7		0.69		1.1		1.1
12/15/2017								0.89 (RS)
5/31/2018				0.75				1.1
6/1/2018		2.8				0.97		
11/7/2018		2.9				1.1		
11/8/2018				0.78				0.76
4/22/2019				0.531				1.09
4/23/2019		2.76				1.01		

Within Limit

Prediction Limit
Intrawell Parametric

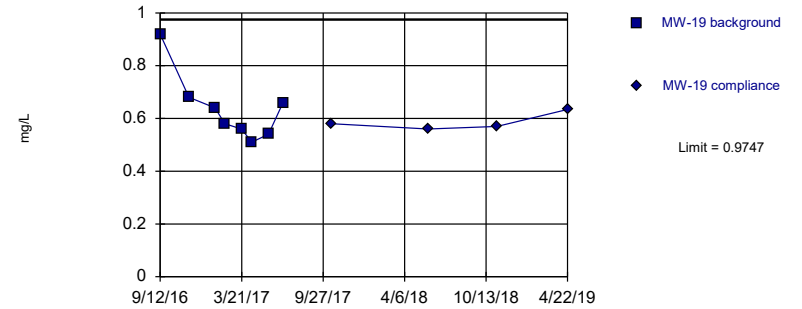


Background Data Summary (based on natural log transformation): Mean=0.03456, Std. Dev.=0.1329, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7633, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

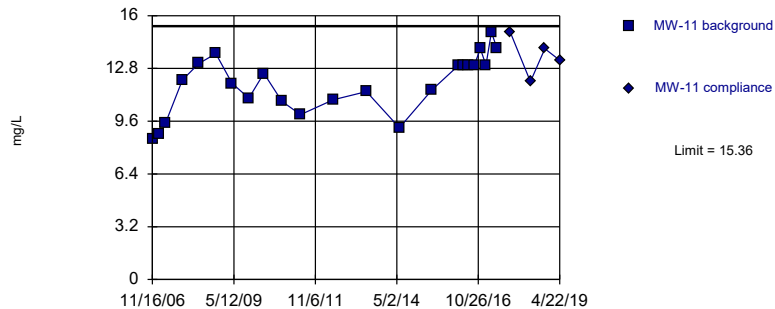


Background Data Summary: Mean=0.6363, Std. Dev.=0.1294, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8372, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

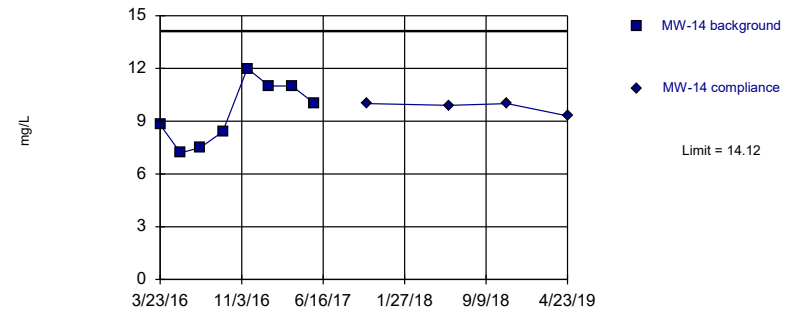


Background Data Summary: Mean=11.87, Std. Dev.=1.794, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9545, critical = 0.881. Kappa = 1.95 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

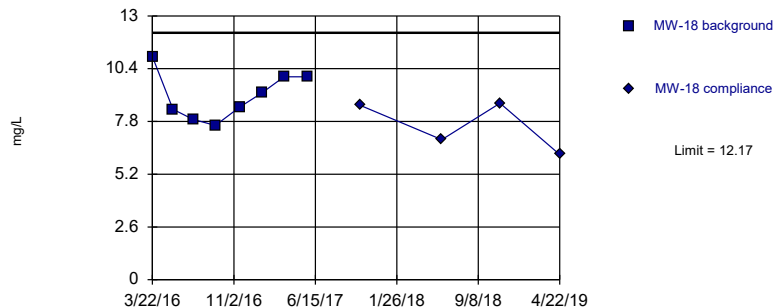


Background Data Summary: Mean=9.488, Std. Dev.=1.772, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Parametric

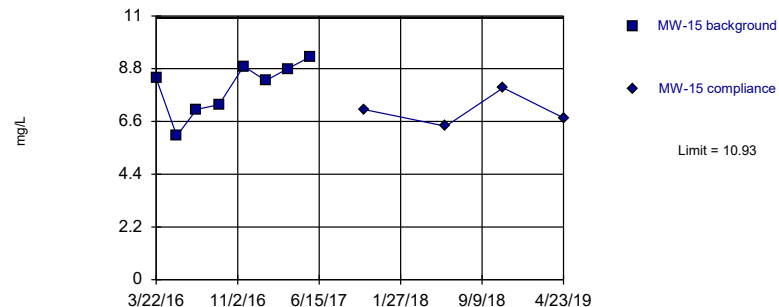


Background Data Summary: Mean=9.075, Std. Dev.=1.182, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Parametric

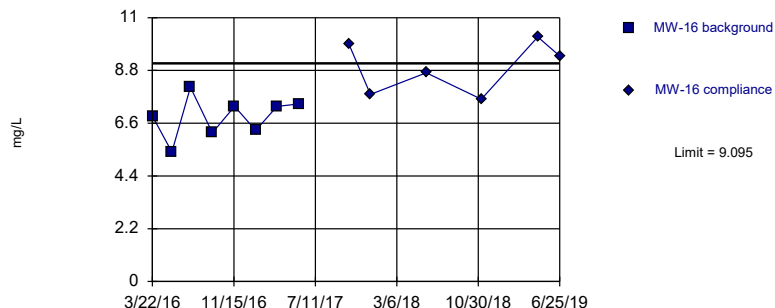


Background Data Summary: Mean=8.013, Std. Dev.=1.114, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9242, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Exceeds Limit

Prediction Limit Intrawell Parametric

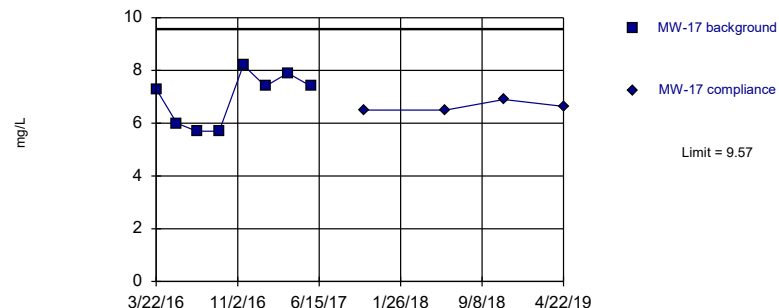


Background Data Summary: Mean=6.863, Std. Dev.=0.8535, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9583, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.95, Std. Dev.=1.001, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8611, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

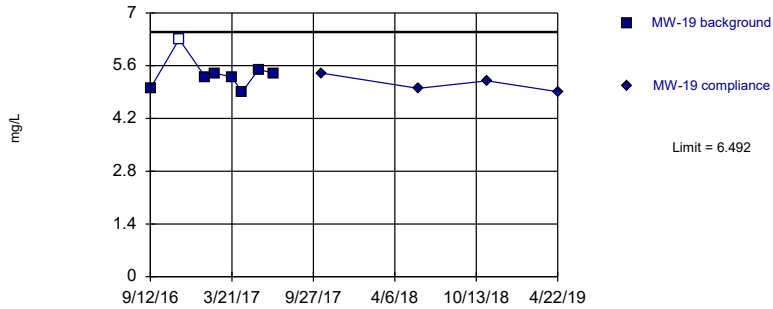
Constituent: Chloride Analysis Run 1/3/2020 9:43 AM View: IntraWell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17
3/22/2016	11		8.4		6.9		7.3	
5/18/2016	8.4		6		5.4		6	
7/11/2016					8.1			
7/12/2016	7.9		7.1				5.7	
9/12/2016	7.6		7.3				5.7	
9/13/2016					6.2			
11/17/2016					7.3			
11/18/2016	8.5						8.2	
11/19/2016			8.9					
1/18/2017	9.2				6.3		7.4	
1/19/2017			8.3					
3/21/2017	10		8.8		7.3		7.9	
5/23/2017			9.3		7.4			
5/24/2017	10						7.4	
10/17/2017		8.6		7.1		9.9		6.5
12/19/2017						7.8 (RS)		
5/31/2018		6.9				8.7		6.5
6/1/2018				6.4				
11/7/2018				8				
11/8/2018		8.7				7.6		6.9
4/22/2019		6.17				10.2		6.64
4/23/2019				6.75				
6/25/2019						9.4		

Within Limit

Prediction Limit
Intrawell Parametric

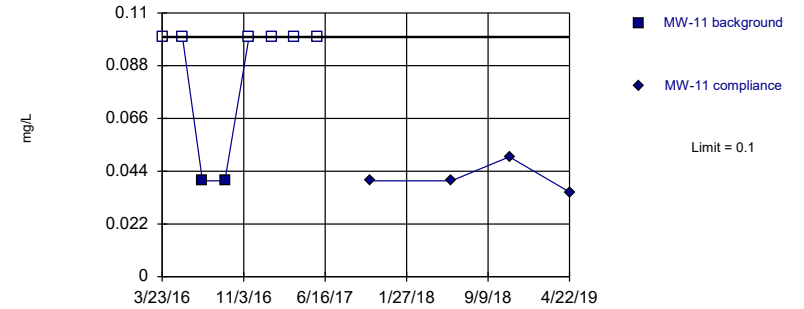


Background Data Summary: Mean=5.388, Std. Dev.=0.4224, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8471, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

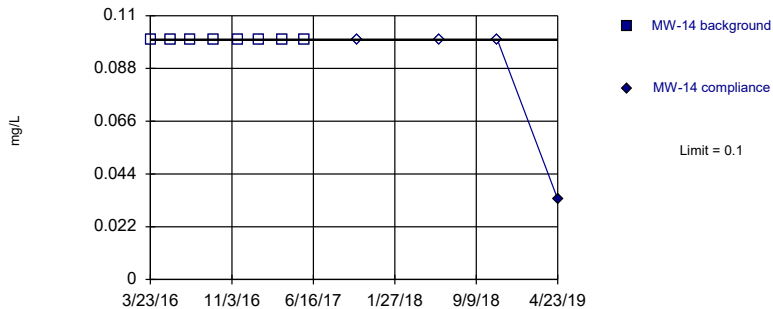


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

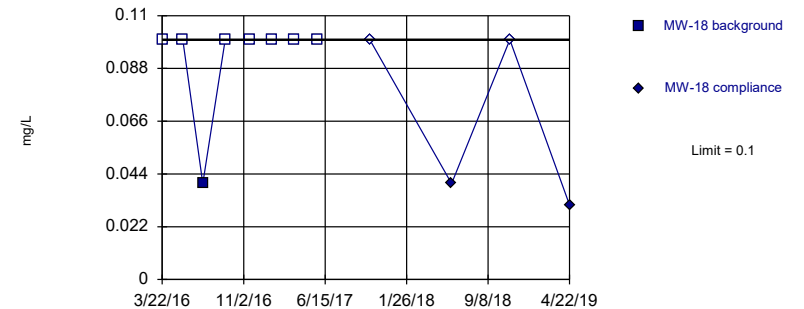


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

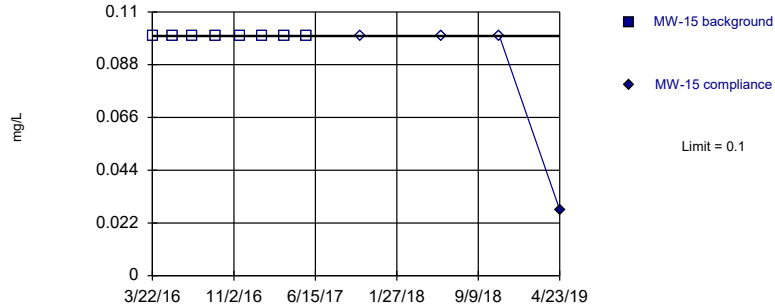
Prediction Limit

Constituent: Chloride, Fluoride Analysis Run 1/3/2020 9:44 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19	MW-11	MW-11	MW-14	MW-14	MW-18	MW-18
3/22/2016							<0.1	
3/23/2016			<0.1		<0.1			
5/18/2016			<0.1		<0.1		<0.1	
7/12/2016			0.04 (J)		<0.1		0.04 (J)	
9/12/2016	5		0.04 (J)		<0.1		<0.1	
11/18/2016	<6.3 (*)		<0.1				<0.1	
11/19/2016					<0.1			
1/18/2017	5.3				<0.1		<0.1	
1/19/2017			<0.1					
2/10/2017	5.4							
3/21/2017	5.3						<0.1	
3/22/2017			<0.1		<0.1			
4/14/2017	4.9							
5/23/2017	5.5							
5/24/2017			<0.1		<0.1		<0.1	
6/26/2017	5.4							
10/17/2017		5.4		0.04 (J)		<0.1		<0.1
5/31/2018		5		0.04 (J)				0.04 (J)
6/1/2018						<0.1		
11/7/2018				0.05 (J)		<0.1		
11/8/2018		5.2						<0.1
4/22/2019		4.91		0.0353 (J)				0.0311 (J)
4/23/2019						0.0335 (J)		

Within Limit

Prediction Limit
Intrawell Non-parametric

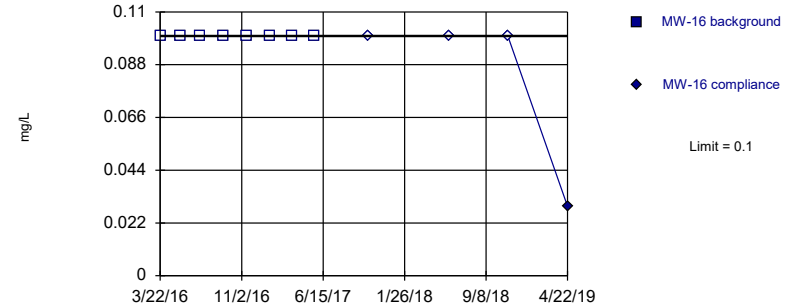


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

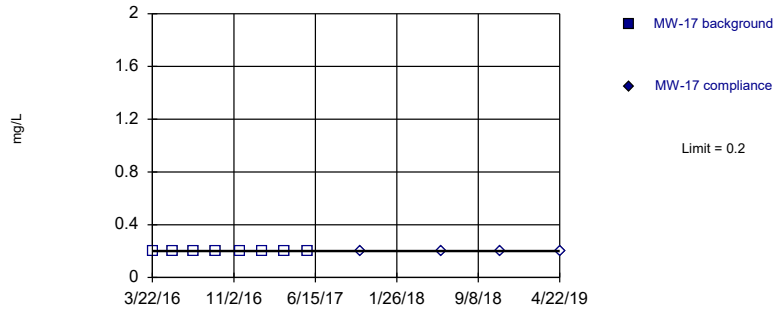


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

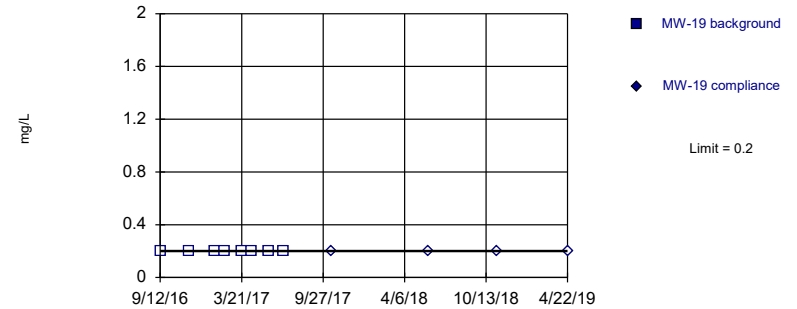


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

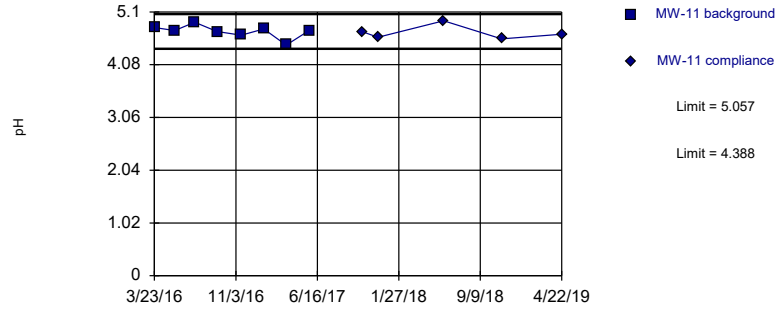
Prediction Limit

Constituent: Fluoride Analysis Run 1/3/2020 9:44 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17	MW-19	MW-19
3/22/2016	<0.1		<0.1		<0.2			
5/18/2016	<0.1		<0.1		<0.2			
7/11/2016			<0.1					
7/12/2016	<0.1				<0.2			
9/12/2016	<0.1				<0.2		<0.2	
9/13/2016			<0.1					
11/17/2016			<0.1					
11/18/2016					<0.2		<0.2	
11/19/2016	<0.1							
1/18/2017			<0.1		<0.2		<0.2	
1/19/2017	<0.1							
2/10/2017							<0.2	
3/21/2017	<0.1		<0.1		<0.2		<0.2	
4/14/2017							<0.2	
5/23/2017	<0.1		<0.1				<0.2	
5/24/2017					<0.2			
6/26/2017							<0.2	
10/17/2017		<0.1		<0.1		<0.2		<0.2
5/31/2018				<0.1		<0.2		<0.2
6/1/2018		<0.1						
11/7/2018		<0.1						
11/8/2018				<0.1		<0.2		<0.2
4/22/2019				0.029 (J)		<0.2		<0.2
4/23/2019		0.0275 (J)						

Within Limits

Prediction Limit
Intrawell Parametric

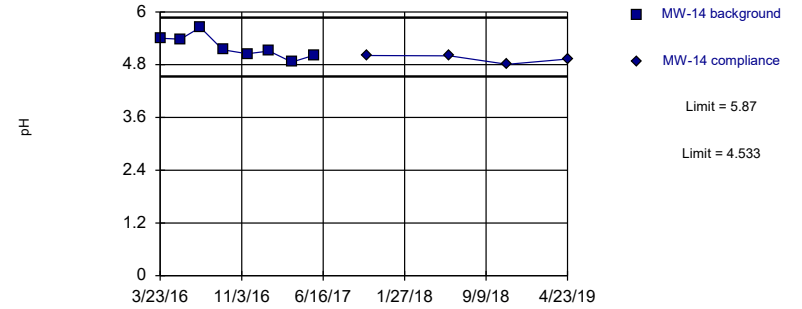


Background Data Summary: Mean=4.723, Std. Dev.=0.1279, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9077, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit
Intrawell Parametric

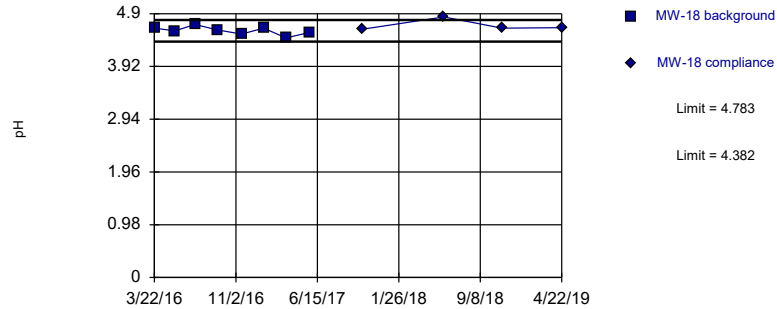


Background Data Summary: Mean=5.201, Std. Dev.=0.2555, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9459, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit
Intrawell Parametric

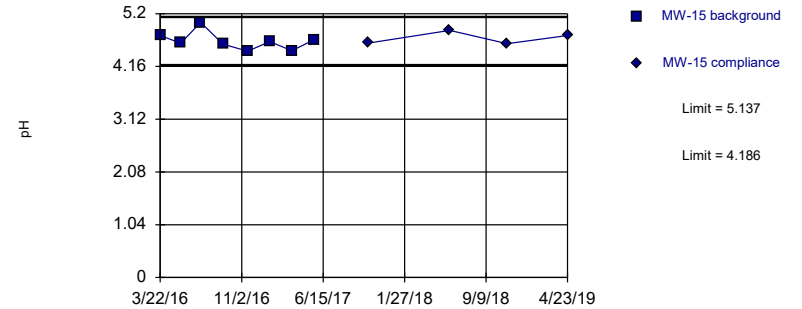


Background Data Summary: Mean=4.583, Std. Dev.=0.07667, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9835, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=4.661, Std. Dev.=0.1818, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

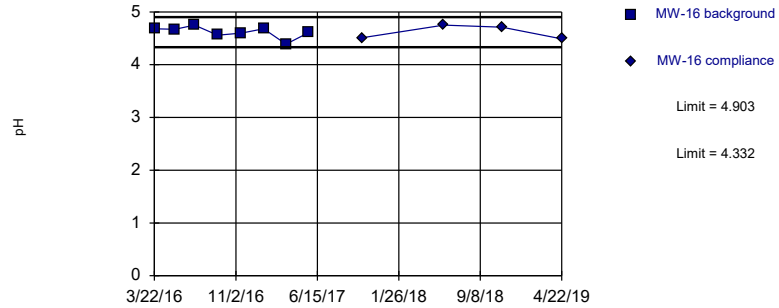
Prediction Limit

Constituent: pH Analysis Run 1/3/2020 9:44 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15
3/22/2016					4.63		4.77	
3/23/2016	4.8		5.4					
5/18/2016	4.74		5.38		4.58		4.62	
7/12/2016	4.9		5.65		4.7		5.03	
9/12/2016	4.72		5.14		4.6		4.6	
11/18/2016	4.65				4.52			
11/19/2016			5.05				4.46	
1/18/2017			5.11		4.63			
1/19/2017	4.77						4.65	
3/21/2017					4.45		4.47	
3/22/2017	4.46		4.86					
5/23/2017							4.69	
5/24/2017	4.74		5.02		4.55			
10/17/2017		4.72		5.01		4.61		4.62
11/30/2017		4.61						
5/31/2018		4.93				4.84		
6/1/2018				5				4.87
11/7/2018		4.58		4.81				4.61
11/8/2018						4.63		
4/22/2019		4.67				4.64		
4/23/2019				4.93				4.77

Within Limits

Prediction Limit
Intrawell Parametric

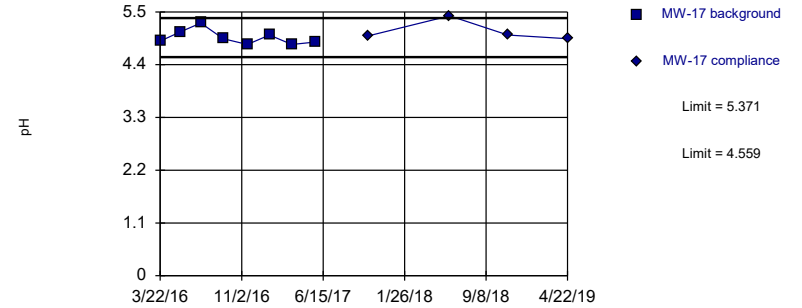


Background Data Summary: Mean=4.618, Std. Dev.=0.1093, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.893, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit
Intrawell Parametric

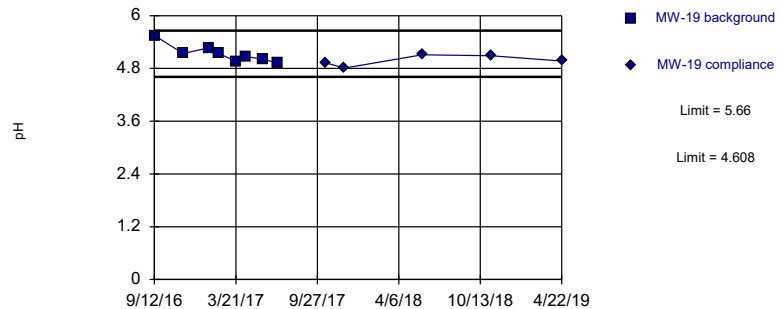


Background Data Summary: Mean=4.965, Std. Dev.=0.1554, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8849, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit
Intrawell Parametric

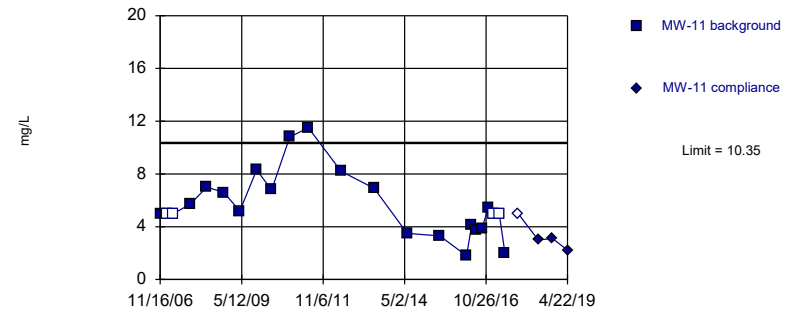


Background Data Summary: Mean=5.134, Std. Dev.=0.2011, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8831, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=5.252, Std. Dev.=2.616, n=23, 17.39% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9358, critical = 0.881. Kappa = 1.95 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

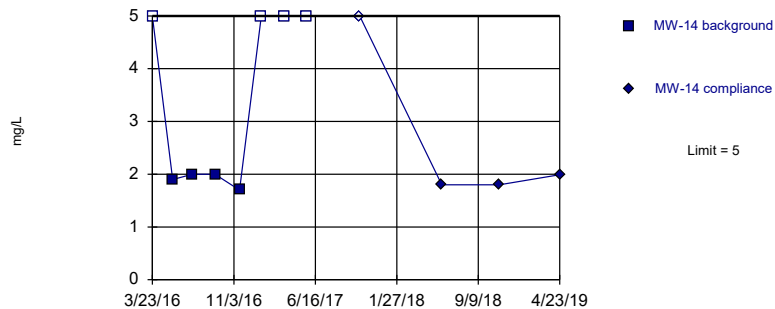
Constituent: pH, Sulfate Analysis Run 1/3/2020 9:44 AM View: IntraWell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16	MW-17	MW-17	MW-19	MW-19	MW-11	MW-11
11/16/2006							5	
2/5/2007							<5	
4/12/2007							<5	
10/17/2007							5.7	
4/17/2008							7	
10/24/2008							6.6	
4/21/2009							5.2	
10/26/2009							8.3	
4/12/2010							6.8	
10/30/2010							10.8	
5/25/2011							11.5	
5/25/2012							8.2	
5/28/2013							6.9	
5/31/2014							3.5	
5/29/2015							3.3	
3/22/2016	4.68		4.89					
3/23/2016							1.8 (J)	
5/18/2016	4.67		5.09				4.1	
7/11/2016	4.75							
7/12/2016			5.27				3.8 (J)	
9/12/2016			4.94		5.55		3.9 (J)	
9/13/2016	4.56							
11/17/2016	4.6							
11/18/2016			4.82		5.14		5.4	
1/18/2017	4.68		5.02		5.27			
1/19/2017							<5	
2/10/2017					5.14			
3/21/2017	4.39		4.82		4.96			
3/22/2017							<5	
4/14/2017					5.07			
5/23/2017	4.61				5.01			
5/24/2017			4.87				2 (J)	
6/26/2017					4.93			
10/17/2017		4.51		5		4.93		<5
11/30/2017						4.81		
5/31/2018		4.75		5.42		5.11		3 (J)
11/7/2018								3.1 (J)
11/8/2018		4.71		5.02		5.09		
4/22/2019		4.49		4.94		4.97		2.22

Within Limit

Prediction Limit Intrawell Non-parametric

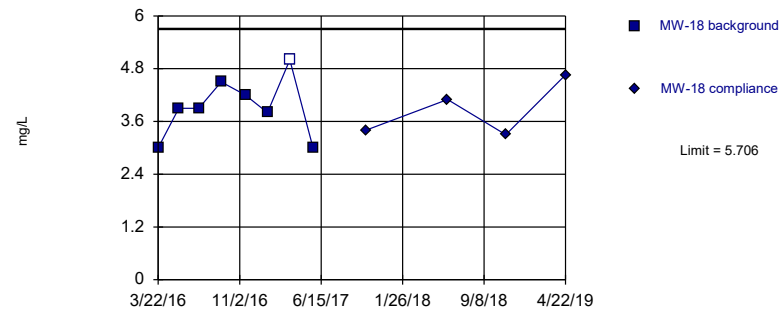


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Parametric

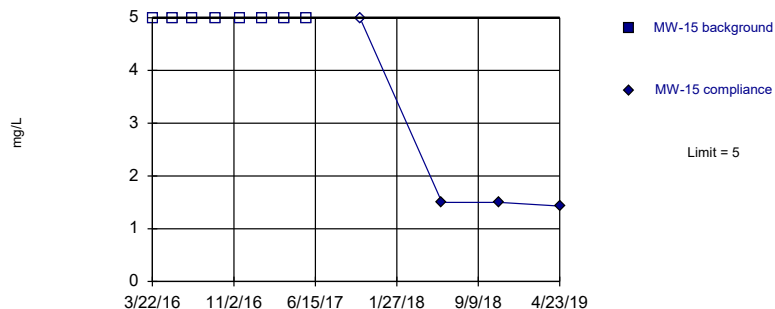


Background Data Summary: Mean=3.913, Std. Dev.=0.6854, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9362, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Non-parametric

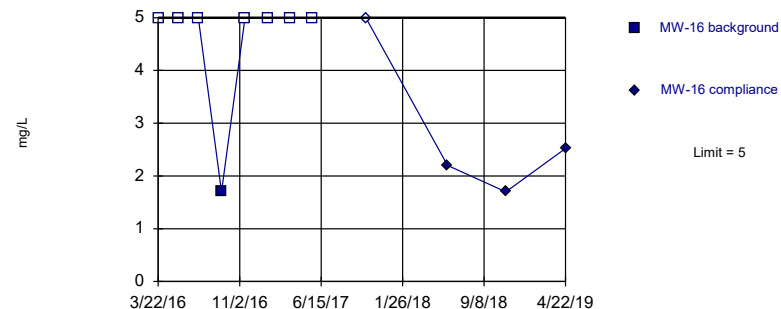


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2020 9:41 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

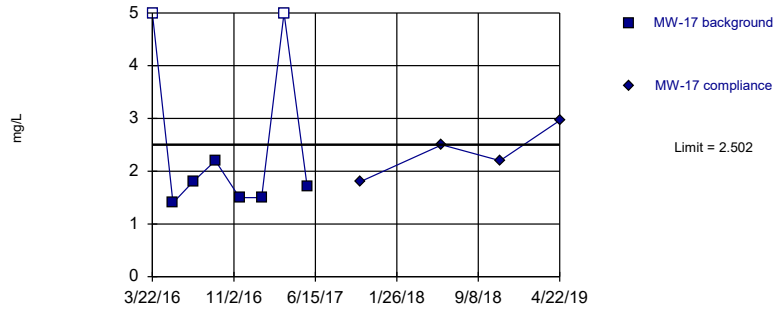
Prediction Limit

Constituent: Sulfate Analysis Run 1/3/2020 9:44 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16
3/22/2016			3 (J)		<5		<5	
3/23/2016	<5							
5/18/2016	1.9		3.9 (J)		<5		<5	
7/11/2016							<5	
7/12/2016	2 (J)		3.9 (J)		<5			
9/12/2016	2 (J)		4.5 (J)		<5			
9/13/2016							1.7 (J)	
11/17/2016							<5	
11/18/2016			4.2 (J)					
11/19/2016	1.7 (J)				<5			
1/18/2017	<5		3.8 (J)				<5	
1/19/2017					<5			
3/21/2017			<5 (*)		<5		<5	
3/22/2017	<5							
5/23/2017					<5		<5	
5/24/2017	<5		3 (J)					
10/17/2017		<5		3.4 (J)		<5		<5
5/31/2018				4.1 (J)				2.2 (J)
6/1/2018		1.8 (J)				1.5 (J)		
11/7/2018		1.8 (J)				1.5 (J)		
11/8/2018				3.3 (J)				1.7 (J)
4/22/2019				4.66				2.52
4/23/2019		1.99				1.43		

Exceeds Limit

Prediction Limit
Intrawell Parametric

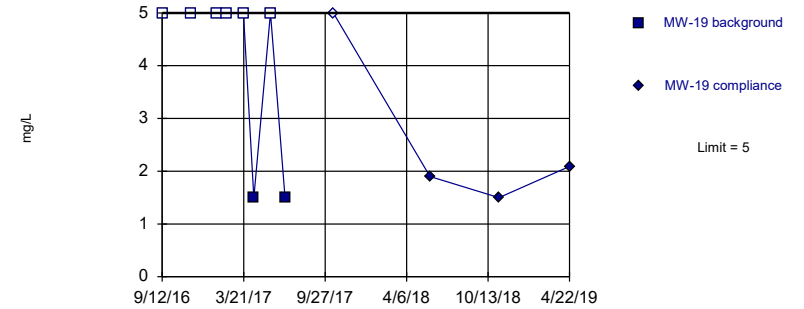


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=0.4975, Std. Dev.=0.1603, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.764, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

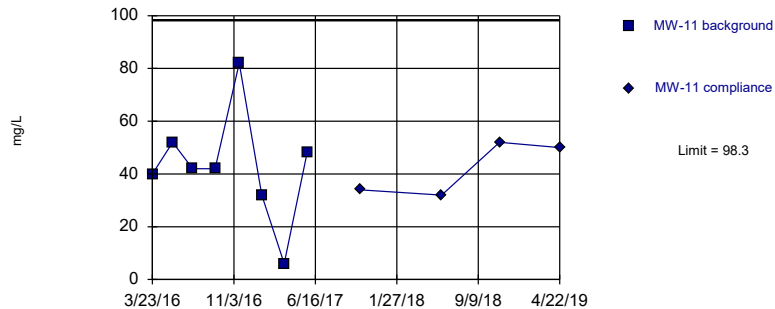


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

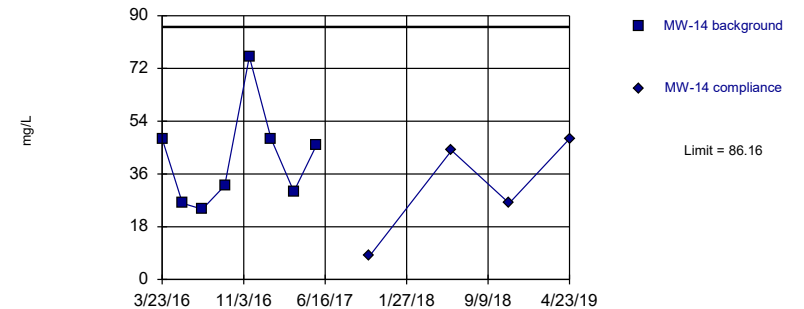


Background Data Summary: Mean=43, Std. Dev.=21.14, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9225, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

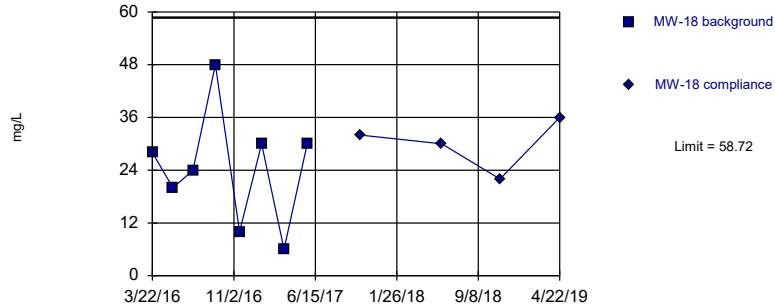


Background Data Summary: Mean=41.25, Std. Dev.=17.17, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8693, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

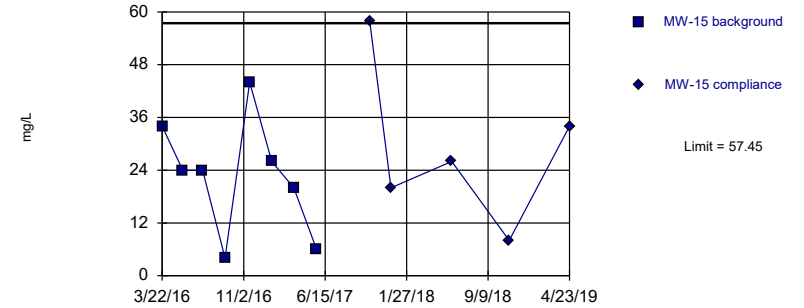


Background Data Summary: Mean=24.5, Std. Dev.=13.08, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9488, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

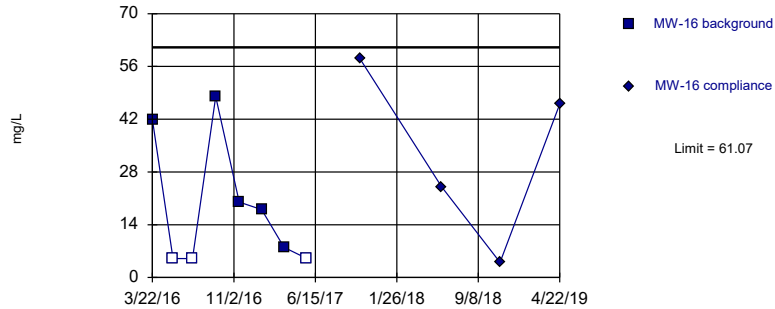


Background Data Summary: Mean=22.75, Std. Dev.=13.26, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

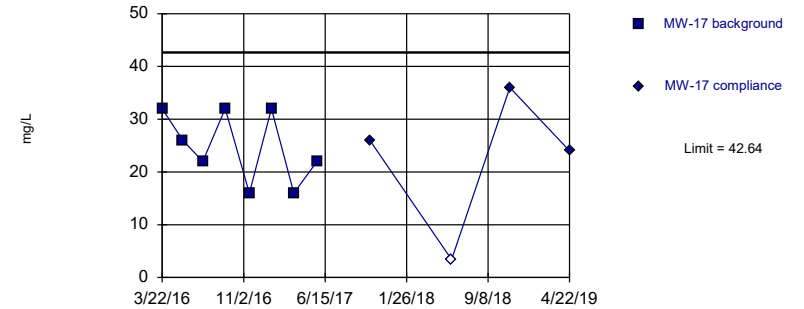


Background Data Summary (after Kaplan-Meier Adjustment): Mean=18.88, Std. Dev.=16.13, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8041, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=24.75, Std. Dev.=6.84, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8529, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

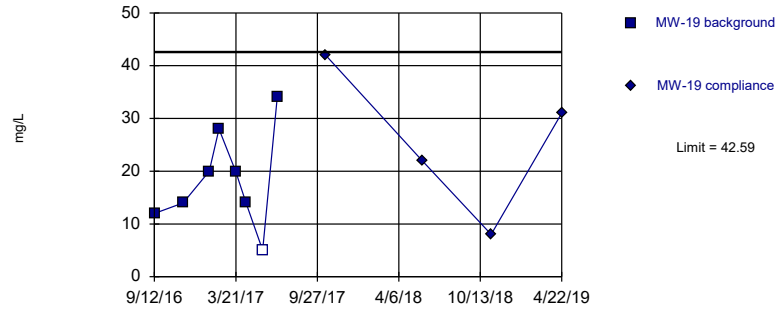
Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:44 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17
3/22/2016	28		34		42		32	
5/18/2016	20		24		<5		26	
7/11/2016					<5			
7/12/2016	24		24				22	
9/12/2016	48		4 (J)				32	
9/13/2016					48			
11/17/2016					20			
11/18/2016	10						16	
11/19/2016			44					
1/18/2017	30				18		32	
1/19/2017			26					
3/21/2017	6		20		8		16	
5/23/2017			6		<5			
5/24/2017	30						22	
10/17/2017		32		58		58		26
12/15/2017				20 (RS)				
5/31/2018		30				24		<3.4
6/1/2018				26				
11/7/2018				8				
11/8/2018		22				4 (J)		36
4/22/2019		36				46		24
4/23/2019				34				

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=18.38, Std. Dev.=9.257, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9598, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

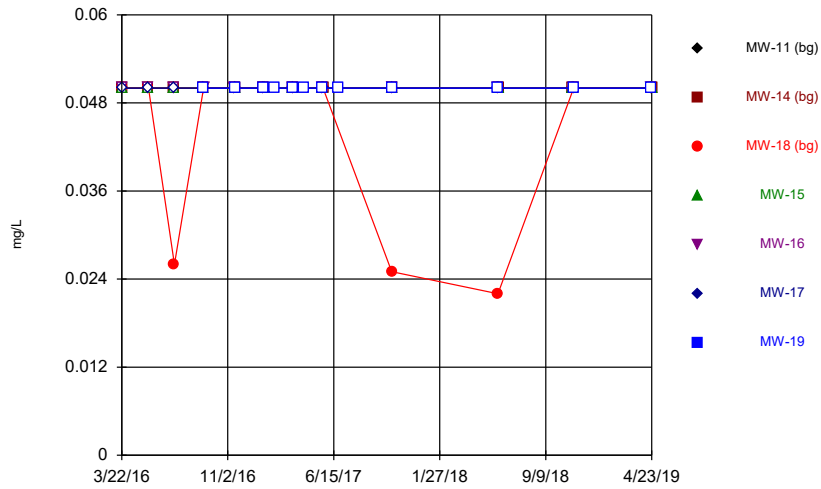
Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:42 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:44 AM View: IntraWell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

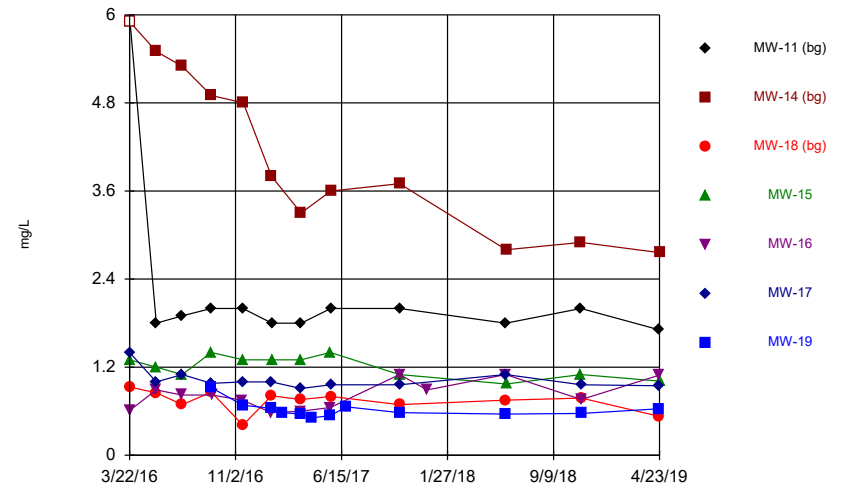
	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017		42
5/31/2018		22
11/8/2018		8
4/22/2019		31

Time Series



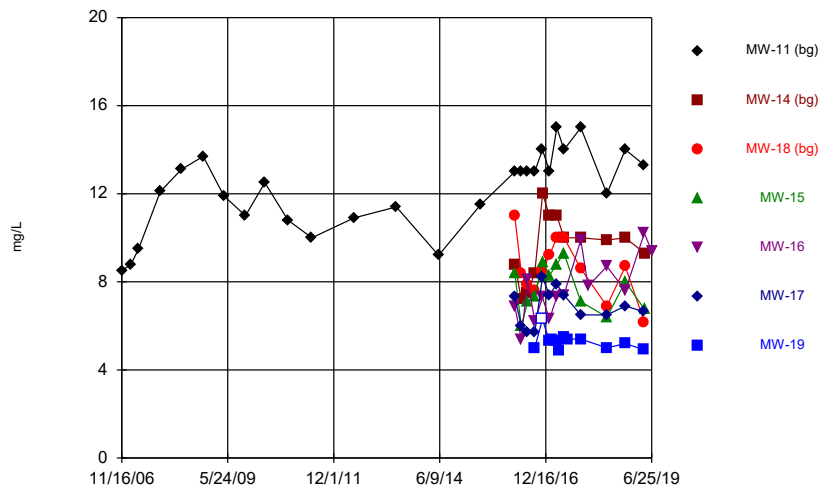
Constituent: Boron Analysis Run 1/3/2020 9:47 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



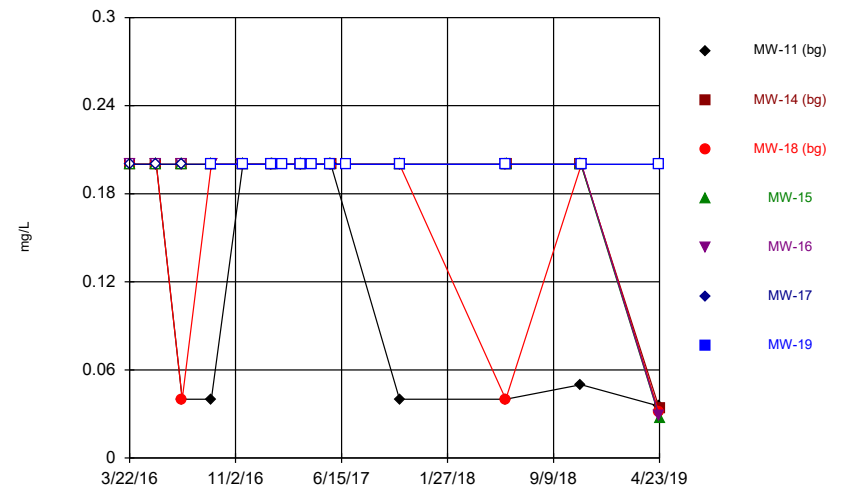
Constituent: Calcium Analysis Run 1/3/2020 9:47 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



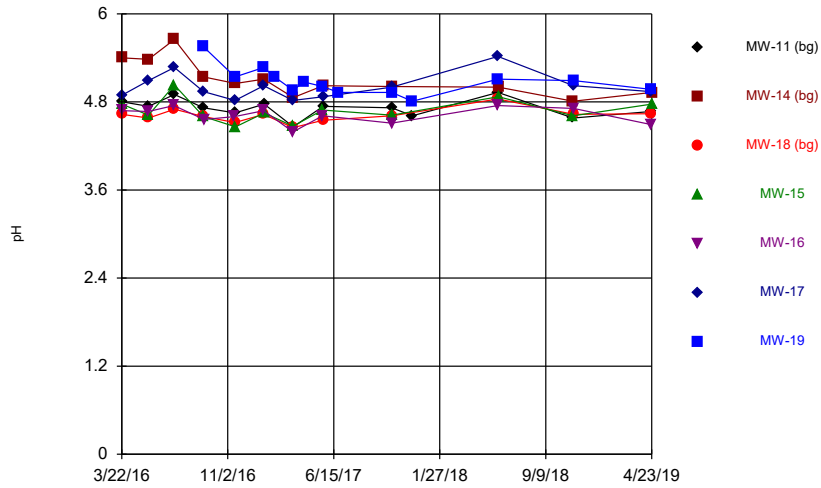
Constituent: Chloride Analysis Run 1/3/2020 9:47 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



Constituent: Fluoride Analysis Run 1/3/2020 9:47 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

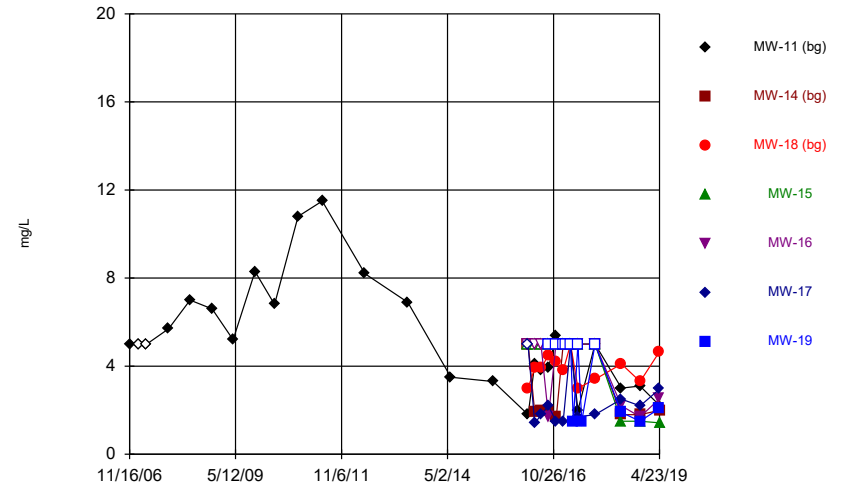
Time Series



Constituent: pH Analysis Run 1/3/2020 9:47 AM View: Time Series
 Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

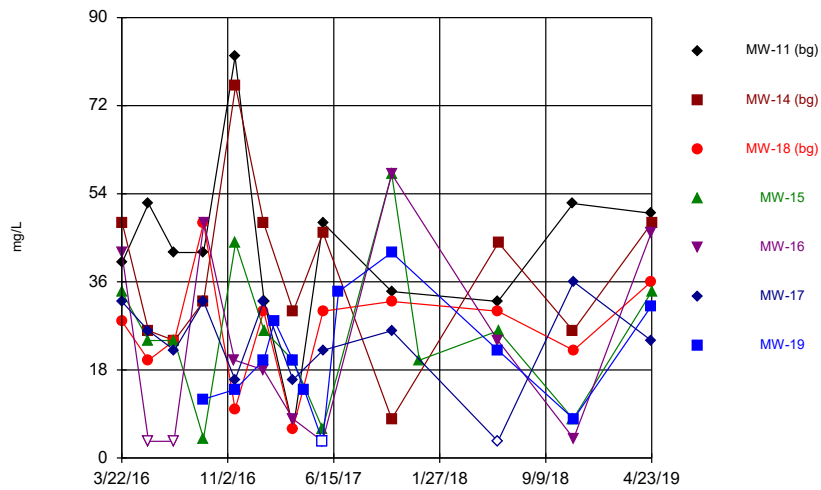
Time Series



Constituent: Sulfate Analysis Run 1/3/2020 9:47 AM View: Time Series
 Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:47 AM View: Time Series
 Plant Daniel Client: Southern Company Data: NAMU CCR

2nd
Semi-Annual
Monitoring Event

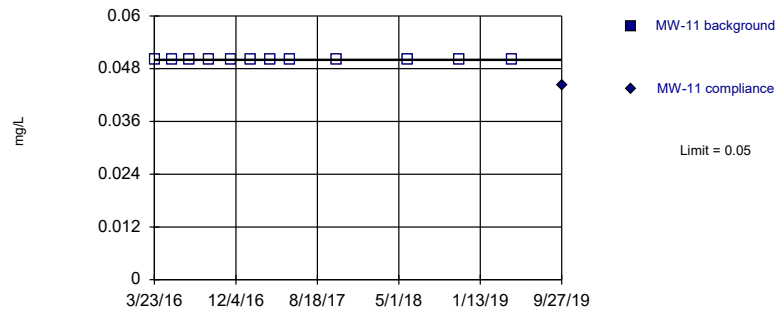
Intrawell Prediction Limit - All Results (No Significant Results)

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/3/2020, 9:33 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.05	n/a	9/27/2019	0.0443	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	9/26/2019	0.08ND	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.05	n/a	9/26/2019	0.042	No	12	75	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	9/26/2019	0.08ND	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-16	0.08	n/a	9/26/2019	0.08ND	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-17	0.08	n/a	9/26/2019	0.08ND	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-19	0.08	n/a	9/26/2019	0.08ND	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.131	n/a	9/27/2019	1.99	No	12	8.333	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.608	n/a	9/26/2019	2.4	No	12	8.333	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	9/26/2019	0.631	No	12	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	9/26/2019	1.08	No	12	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	9/26/2019	0.758	No	13	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	9/26/2019	1.11	No	12	0	n/a	0.01077	NP Intra (normality) ...
Calcium (mg/L)	MW-19	0.8608	n/a	12/17/2019	0.707	No	12	0	sqrt(x)	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-11	15.58	n/a	9/27/2019	13.4	No	27	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	9/26/2019	8.35	No	12	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	9/26/2019	6.09	No	12	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	9/26/2019	7.66	No	12	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.78	n/a	9/26/2019	6.54	No	14	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	9/26/2019	6.7	No	12	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	6.145	n/a	9/26/2019	5.03	No	12	8.333	No	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	9/27/2019	0.0438	No	12	50	n/a	0.01077	NP Intra (normality) ...
Fluoride (mg/L)	MW-14	0.1	n/a	9/26/2019	0.0272	No	12	91.67	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	9/26/2019	0.0366	No	12	75	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	9/26/2019	0.1ND	No	12	91.67	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	9/26/2019	0.0302	No	12	91.67	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.2	n/a	9/26/2019	0.0263	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.2	n/a	9/26/2019	0.0287	No	12	100	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (pH)	MW-11	4.992	4.437	n/a	1 future	n/a	13	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-14	5.663	4.563	n/a	1 future	n/a	12	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-18	4.829	4.401	n/a	1 future	n/a	12	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-15	5.04	4.32	n/a	1 future	n/a	12	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-16	4.866	4.367	n/a	1 future	n/a	12	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-17	5.411	4.605	n/a	1 future	n/a	12	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-19	5.483	4.668	n/a	1 future	n/a	13	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	9.791	n/a	9/27/2019	2.36	No	27	18.52	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	9/26/2019	1.95	No	12	41.67	n/a	0.01077	NP Intra (normality) ...
Sulfate (mg/L)	MW-18	5.327	n/a	9/26/2019	4.23	No	12	8.333	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	9/26/2019	1.2	No	12	75	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	9/26/2019	2.28	No	12	66.67	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	3.046	n/a	9/26/2019	2.96	No	12	16.67	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	9/26/2019	2.1	No	12	58.33	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids...	MW-11	82.24	n/a	9/27/2019	50	No	12	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-14	76.82	n/a	9/26/2019	39	No	12	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-18	51.36	n/a	9/26/2019	30	No	12	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-15	58.47	n/a	9/26/2019	32	No	13	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-16	66.28	n/a	9/26/2019	27	No	12	25	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-17	44.19	n/a	9/26/2019	25	No	12	8.333	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids...	MW-19	45.7	n/a	9/26/2019	29	No	12	8.333	No	0.00188	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric



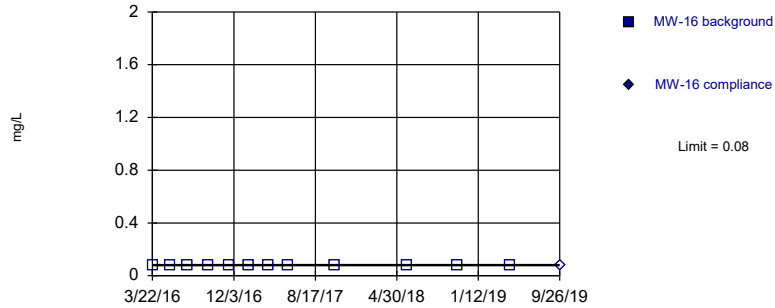
Prediction Limit

Constituent: Boron Analysis Run 1/3/2020 9:33 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15
3/22/2016					<0.05		<0.08	
3/23/2016	<0.05		<0.08					
5/18/2016	<0.05		<0.08		<0.05		<0.08	
7/12/2016	<0.05		<0.08		0.026 (J)		<0.08	
9/12/2016	<0.05		<0.08		<0.05		<0.08	
11/18/2016	<0.05				<0.05			
11/19/2016			<0.08				<0.08	
1/18/2017			<0.08		<0.05			
1/19/2017	<0.05						<0.08	
3/21/2017					<0.05		<0.08	
3/22/2017	<0.05		<0.08					
5/23/2017							<0.08	
5/24/2017	<0.05		<0.08		<0.05			
10/17/2017	<0.05		<0.08		0.025 (J)		<0.08	
5/31/2018	<0.05				0.022 (J)			
6/1/2018			<0.08				<0.08	
11/7/2018	<0.05		<0.08				<0.08	
11/8/2018					<0.05			
4/22/2019	<0.05				<0.05			
4/23/2019			<0.08				<0.08	
9/26/2019				<0.08		0.042 (J)		<0.08
9/27/2019		0.0443 (J)						

Within Limit

Prediction Limit
Intrawell Non-parametric

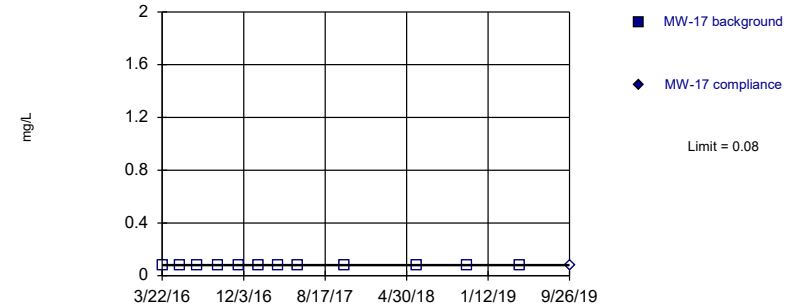


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

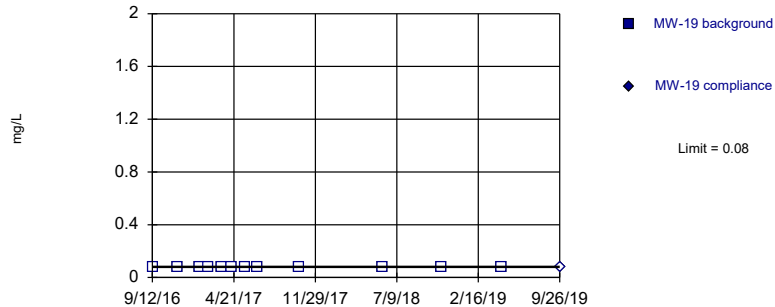


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

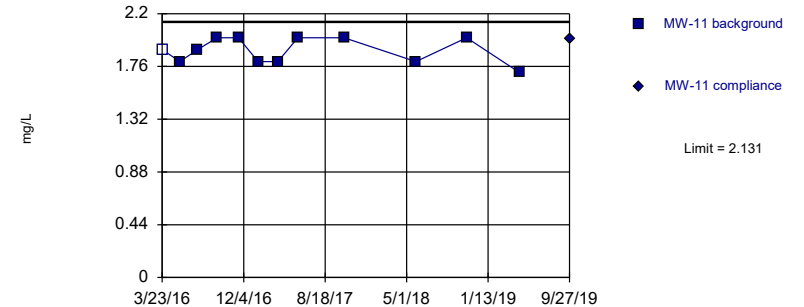


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

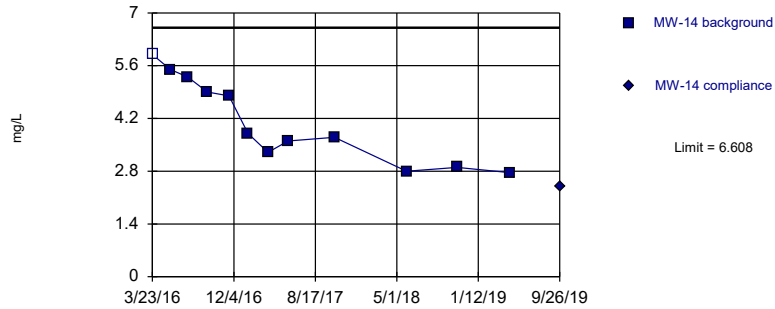


Background Data Summary: Mean=1.892, Std. Dev.=0.1068, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8286, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

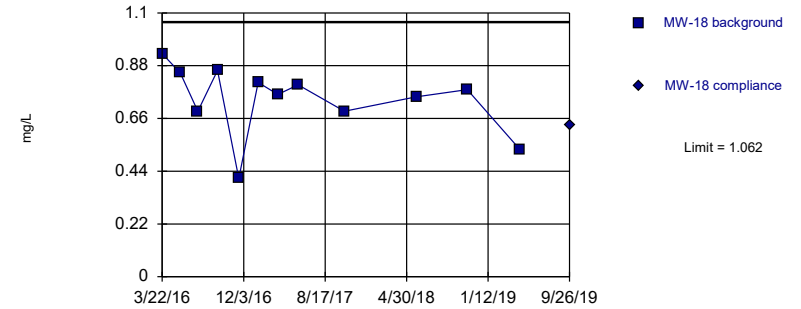


Background Data Summary: Mean=4.105, Std. Dev.=1.121, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9097, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

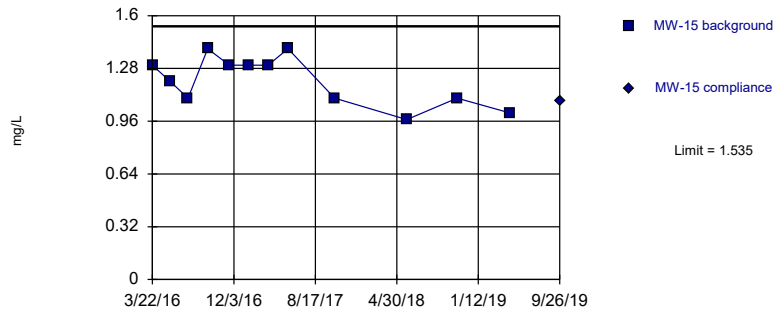


Background Data Summary: Mean=0.7384, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

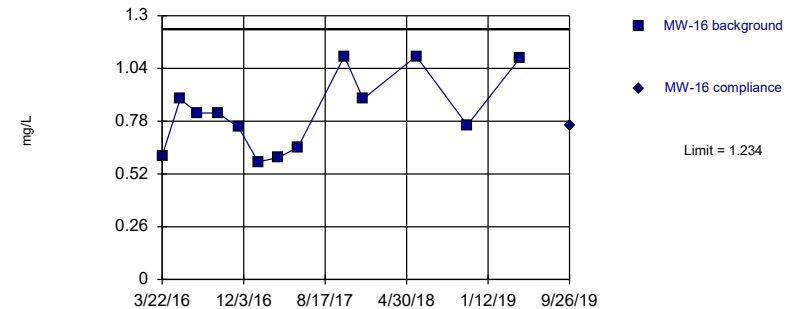


Background Data Summary: Mean=1.207, Std. Dev.=0.1472, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.82, Std. Dev.=0.1886, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9011, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

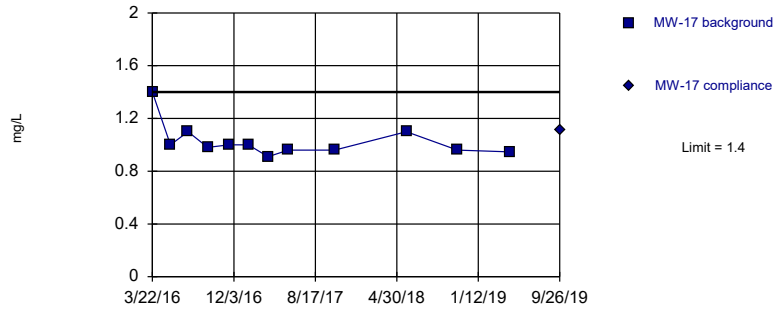
Prediction Limit

Constituent: Calcium Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16
3/22/2016			0.93		1.3		0.61	
3/23/2016	<5.9 (*)							
5/18/2016	5.5		0.85		1.2		0.89	
7/11/2016							0.82	
7/12/2016	5.3		0.69		1.1			
9/12/2016	4.9		0.86		1.4			
9/13/2016							0.82	
11/17/2016							0.75	
11/18/2016			0.41					
11/19/2016	4.8				1.3			
1/18/2017	3.8		0.81				0.58	
1/19/2017					1.3			
3/21/2017			0.76		1.3		0.6	
3/22/2017	3.3							
5/23/2017					1.4		0.65	
5/24/2017	3.6		0.8					
10/17/2017	3.7		0.69		1.1		1.1	
12/15/2017							0.89 (RS)	
5/31/2018			0.75				1.1	
6/1/2018	2.8				0.97			
11/7/2018	2.9				1.1			
11/8/2018			0.78				0.76	
4/22/2019			0.531				1.09	
4/23/2019	2.76				1.01			
9/26/2019		2.4		0.631		1.08		0.758

Within Limit

Prediction Limit
Intrawell Non-parametric

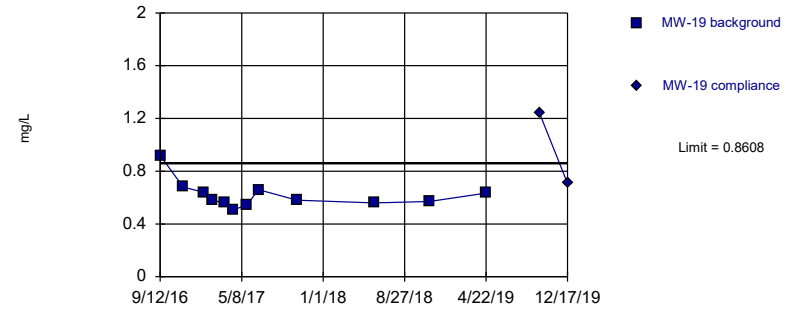


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

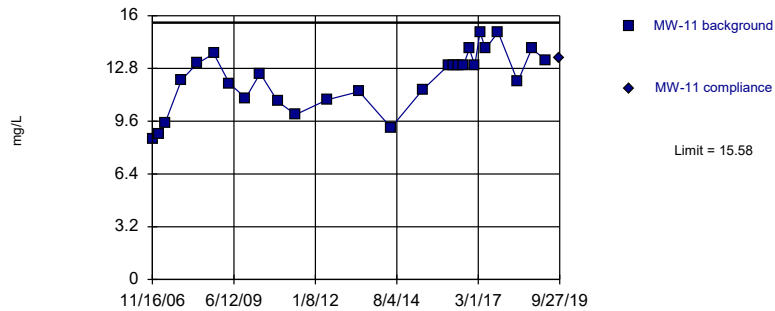


Background Data Summary (based on square root transformation): Mean=0.7847, Std. Dev.=0.06412, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

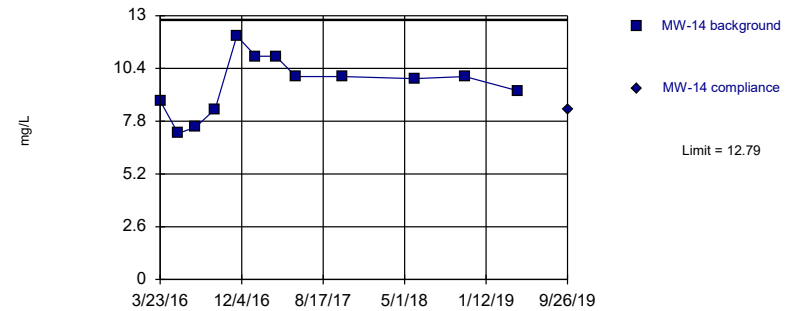


Background Data Summary: Mean=12.12, Std. Dev.=1.814, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=9.592, Std. Dev.=1.433, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

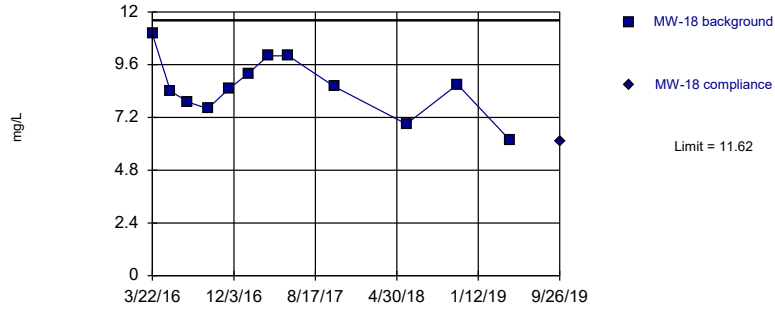
Prediction Limit

Constituent: Calcium, Chloride Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17	MW-19	MW-19	MW-11	MW-11	MW-14	MW-14
11/16/2006					8.5			
2/5/2007					8.8			
4/12/2007					9.5			
10/17/2007					12.1			
4/17/2008					13.1			
10/24/2008					13.7			
4/21/2009					11.9			
10/26/2009					11			
4/12/2010					12.5			
10/30/2010					10.8			
5/25/2011					10			
5/25/2012					10.9			
5/28/2013					11.4			
5/31/2014					9.2			
5/29/2015					11.5			
3/22/2016	1.4							
3/23/2016					13		8.8	
5/18/2016	1				13		7.2	
7/12/2016	1.1				13		7.5	
9/12/2016	0.98		0.92		13		8.4	
11/18/2016	1		0.68		14			
11/19/2016							12	
1/18/2017	1		0.64				11	
1/19/2017					13			
2/10/2017			0.58					
3/21/2017	0.91		0.56					
3/22/2017					15		11	
4/14/2017			0.51					
5/23/2017			0.54					
5/24/2017	0.96				14		10	
6/26/2017			0.66					
10/17/2017	0.96		0.58		15		10	
5/31/2018	1.1		0.56		12			
6/1/2018							9.9	
11/7/2018					14		10	
11/8/2018	0.96		0.57					
4/22/2019	0.946		0.634		13.3			
4/23/2019							9.3	
9/26/2019		1.11		1.24				8.35
9/27/2019						13.4		
12/17/2019				0.707				

Within Limit

Prediction Limit
Intrawell Parametric

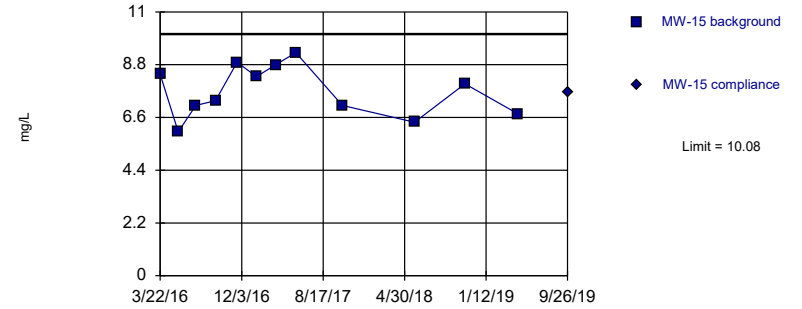


Background Data Summary: Mean=8.581, Std. Dev.=1.361, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

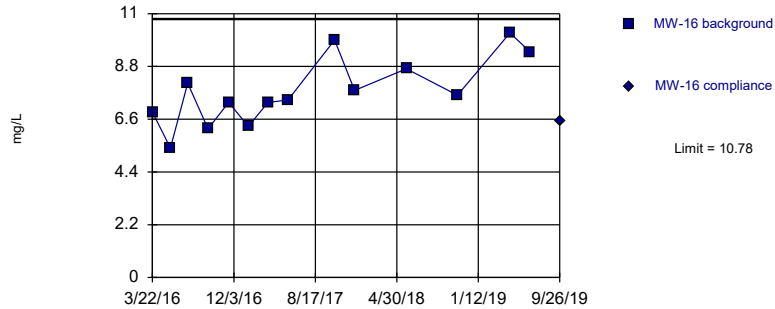


Background Data Summary: Mean=7.696, Std. Dev.=1.067, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

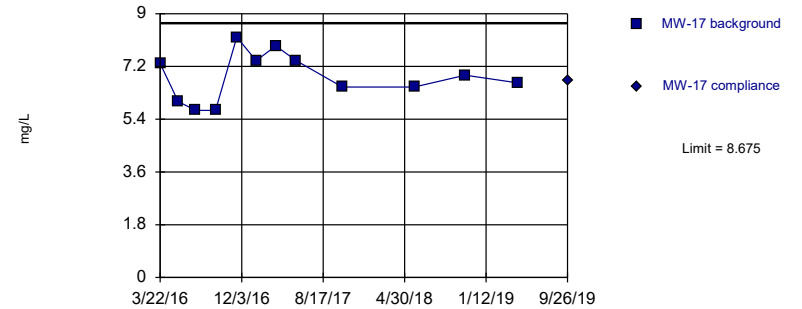


Background Data Summary: Mean=7.75, Std. Dev.=1.405, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9642, critical = 0.825. Kappa = 2.154 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=6.845, Std. Dev.=0.8197, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

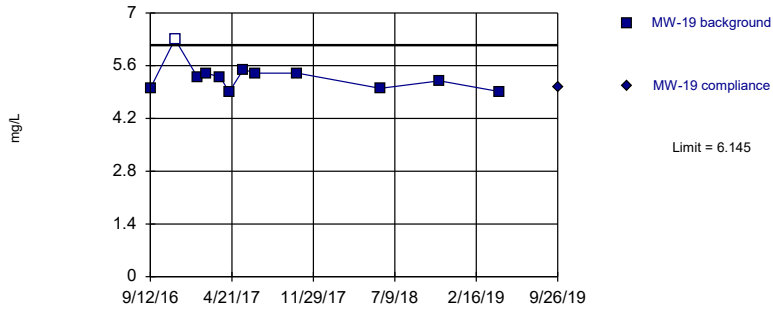
Prediction Limit

Constituent: Chloride Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17
3/22/2016	11		8.4		6.9		7.3	
5/18/2016	8.4		6		5.4		6	
7/11/2016					8.1			
7/12/2016	7.9		7.1				5.7	
9/12/2016	7.6		7.3				5.7	
9/13/2016					6.2			
11/17/2016					7.3			
11/18/2016	8.5						8.2	
11/19/2016			8.9					
1/18/2017	9.2				6.3		7.4	
1/19/2017			8.3					
3/21/2017	10		8.8		7.3		7.9	
5/23/2017			9.3		7.4			
5/24/2017	10						7.4	
10/17/2017	8.6		7.1		9.9		6.5	
12/19/2017					7.8 (RS)			
5/31/2018	6.9				8.7		6.5	
6/1/2018			6.4					
11/7/2018			8					
11/8/2018	8.7				7.6		6.9	
4/22/2019	6.17				10.2		6.64	
4/23/2019			6.75					
6/25/2019					9.4			
9/26/2019		6.09		7.66		6.54		6.7

Within Limit

Prediction Limit
Intrawell Parametric

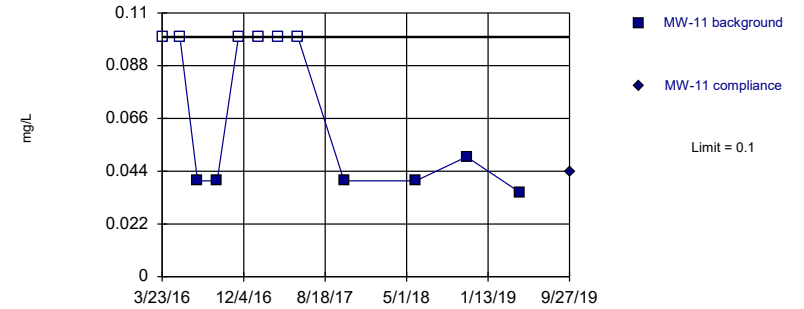


Background Data Summary: Mean=5.301, Std. Dev.=0.378, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8244, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

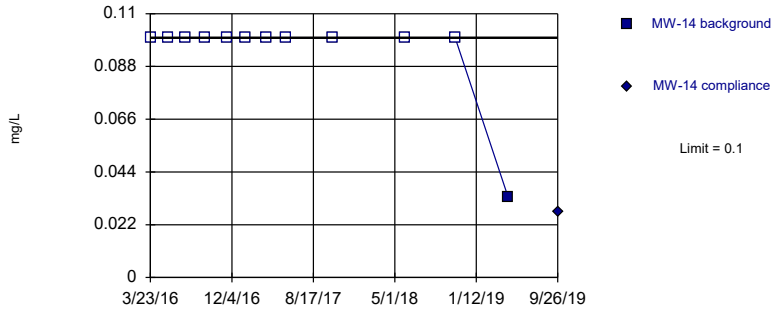


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

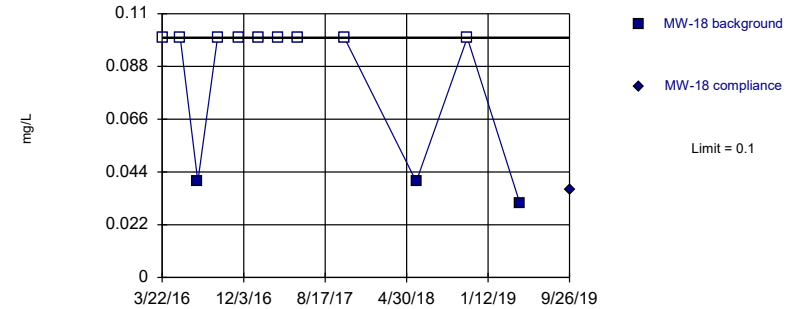


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

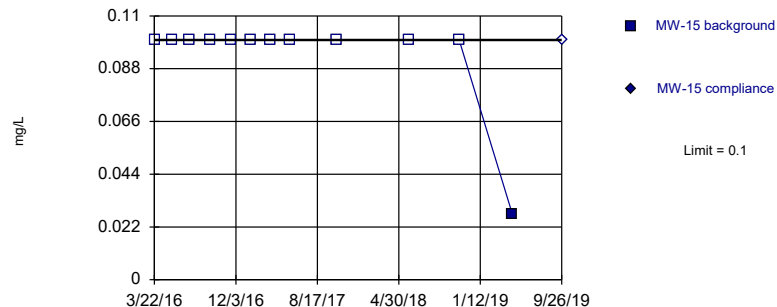
Prediction Limit

Constituent: Chloride, Fluoride Analysis Run 1/3/2020 9:33 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19	MW-11	MW-11	MW-14	MW-14	MW-18	MW-18
3/22/2016							<0.1	
3/23/2016			<0.1		<0.1			
5/18/2016			<0.1		<0.1		<0.1	
7/12/2016			0.04 (J)		<0.1		0.04 (J)	
9/12/2016	5		0.04 (J)		<0.1		<0.1	
11/18/2016	<6.3 (*)		<0.1				<0.1	
11/19/2016					<0.1			
1/18/2017	5.3				<0.1		<0.1	
1/19/2017			<0.1					
2/10/2017	5.4							
3/21/2017	5.3						<0.1	
3/22/2017			<0.1		<0.1			
4/14/2017	4.9							
5/23/2017	5.5							
5/24/2017			<0.1		<0.1		<0.1	
6/26/2017	5.4							
10/17/2017	5.4		0.04 (J)		<0.1		<0.1	
5/31/2018	5		0.04 (J)				0.04 (J)	
6/1/2018					<0.1			
11/7/2018			0.05 (J)		<0.1			
11/8/2018	5.2						<0.1	
4/22/2019	4.91		0.0353 (J)				0.0311 (J)	
4/23/2019					0.0335 (J)			
9/26/2019		5.03				0.0272 (J)		0.0366 (J)
9/27/2019				0.0438 (J)				

Within Limit

Prediction Limit
Intrawell Non-parametric

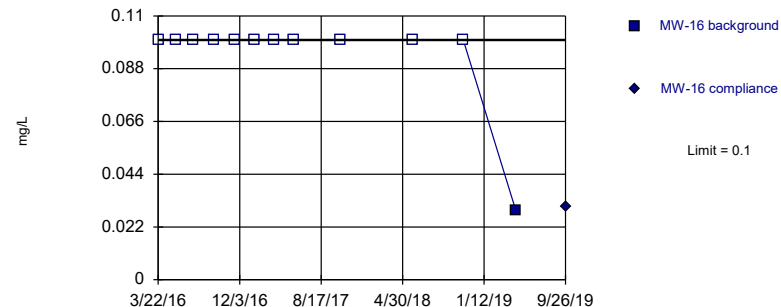


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

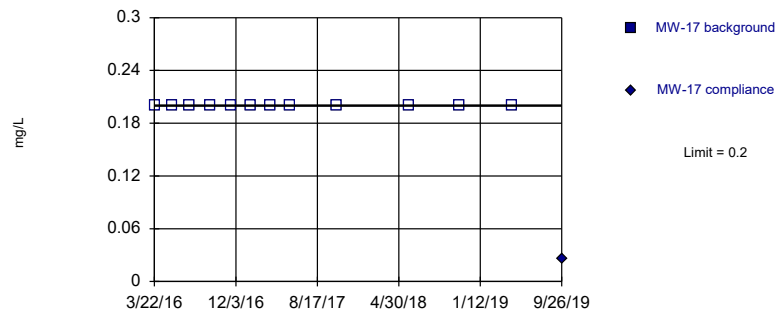


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:30 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

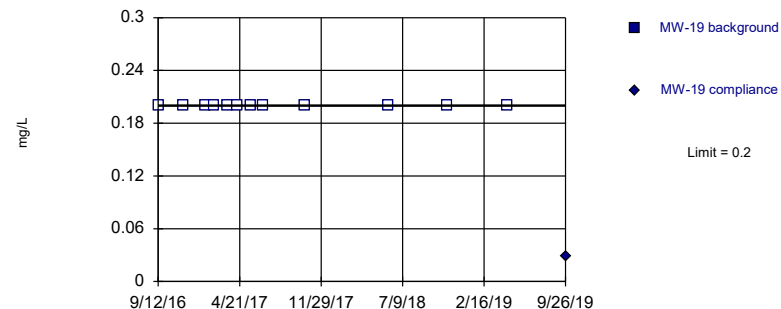


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

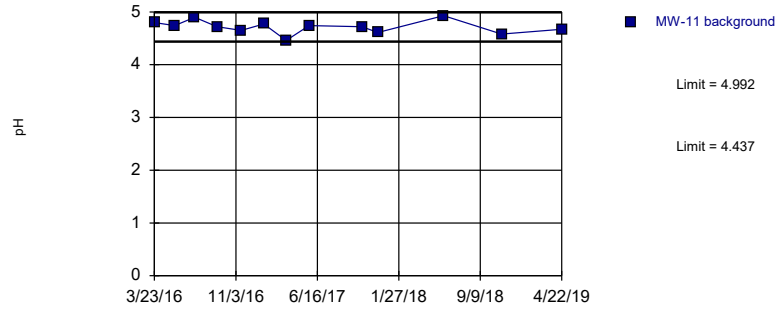
Constituent: Fluoride Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Fluoride Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17	MW-19	MW-19
3/22/2016	<0.1		<0.1		<0.2			
5/18/2016	<0.1		<0.1		<0.2			
7/11/2016			<0.1					
7/12/2016	<0.1				<0.2			
9/12/2016	<0.1				<0.2		<0.2	
9/13/2016			<0.1					
11/17/2016			<0.1					
11/18/2016					<0.2		<0.2	
11/19/2016	<0.1							
1/18/2017			<0.1		<0.2		<0.2	
1/19/2017	<0.1							
2/10/2017							<0.2	
3/21/2017	<0.1		<0.1		<0.2		<0.2	
4/14/2017							<0.2	
5/23/2017	<0.1		<0.1				<0.2	
5/24/2017					<0.2			
6/26/2017							<0.2	
10/17/2017	<0.1		<0.1		<0.2		<0.2	
5/31/2018			<0.1		<0.2		<0.2	
6/1/2018	<0.1							
11/7/2018	<0.1							
11/8/2018			<0.1		<0.2		<0.2	
4/22/2019			0.029 (J)		<0.2		<0.2	
4/23/2019	0.0275 (J)							
9/26/2019		<0.1		0.0302 (J)		0.0263 (J)		0.0287 (J)

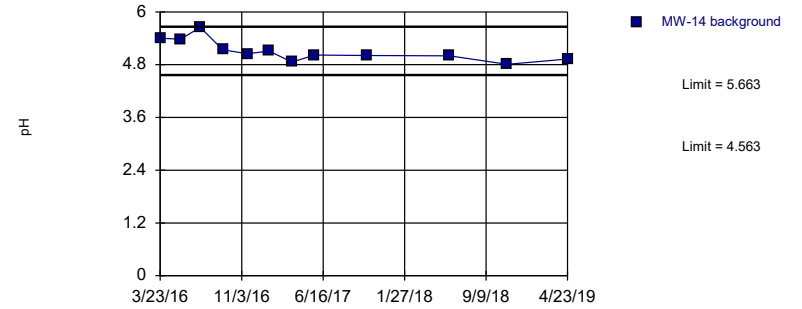
Prediction Limit Intrawell Parametric, MW-11 (bg)



Background Data Summary: Mean=4.715, Std. Dev.=0.1267, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

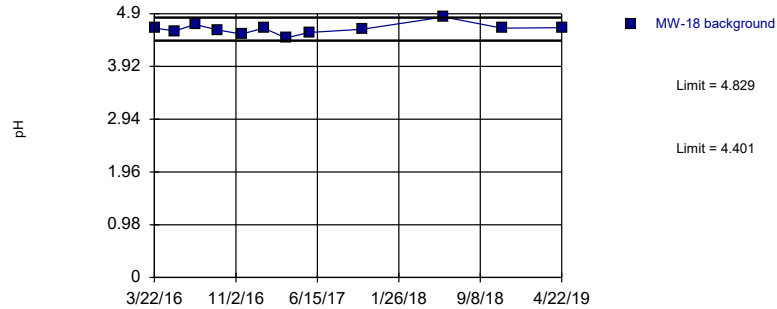
Prediction Limit Intrawell Parametric, MW-14 (bg)



Background Data Summary: Mean=5.113, Std. Dev.=0.2464, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

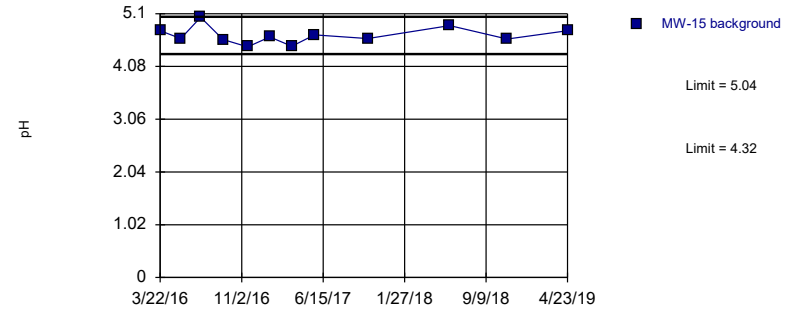
Prediction Limit Intrawell Parametric, MW-18 (bg)



Background Data Summary: Mean=4.615, Std. Dev.=0.09587, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit Intrawell Parametric, MW-15



Background Data Summary: Mean=4.68, Std. Dev.=0.1615, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

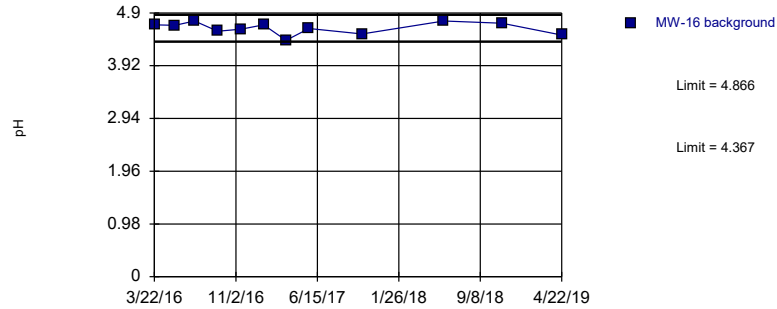
Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: pH Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-14	MW-18	MW-15
3/22/2016			4.63	4.77
3/23/2016	4.8	5.4		
5/18/2016	4.74	5.38	4.58	4.62
7/12/2016	4.9	5.65	4.7	5.03
9/12/2016	4.72	5.14	4.6	4.6
11/18/2016	4.65		4.52	
11/19/2016		5.05		4.46
1/18/2017		5.11	4.63	
1/19/2017	4.77			4.65
3/21/2017			4.45	4.47
3/22/2017	4.46	4.86		
5/23/2017				4.69
5/24/2017	4.74	5.02	4.55	
10/17/2017	4.72	5.01	4.61	4.62
11/30/2017	4.61			
5/31/2018	4.93		4.84	
6/1/2018		5		4.87
11/7/2018	4.58	4.81		4.61
11/8/2018			4.63	
4/22/2019	4.67		4.64	
4/23/2019		4.93		4.77

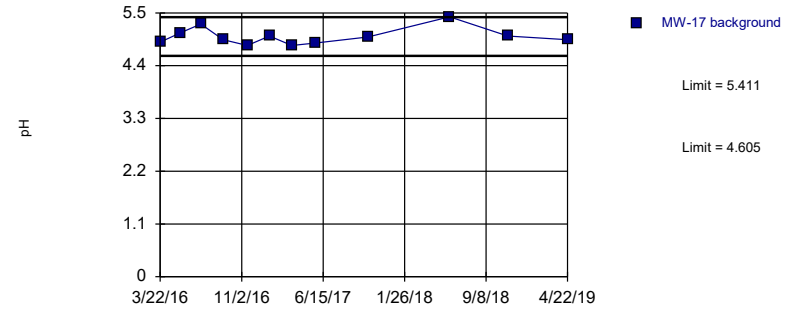
Prediction Limit
Intrawell Parametric, MW-16



Background Data Summary: Mean=4.617, Std. Dev.=0.1118, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

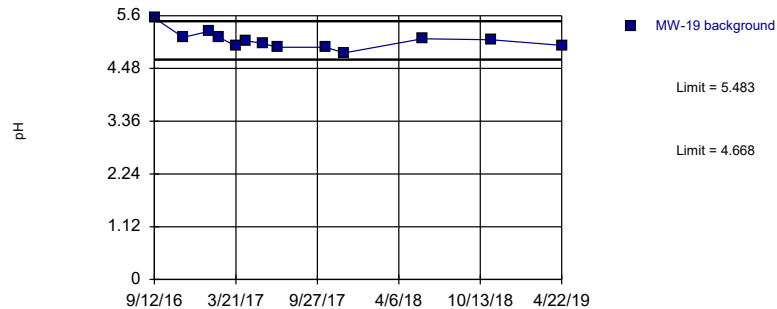
Prediction Limit
Intrawell Parametric, MW-17



Background Data Summary: Mean=5.008, Std. Dev.=0.1805, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit
Intrawell Parametric, MW-19

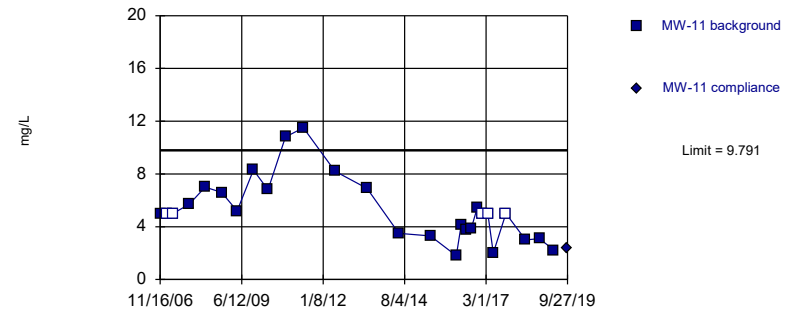


Background Data Summary: Mean=5.075, Std. Dev.=0.1858, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.872, Std. Dev.=2.58, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: pH, Sulfate Analysis Run 1/3/2020 9:33 AM View: IntraWell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-17	MW-19	MW-11	MW-11
11/16/2006				5	
2/5/2007				<5	
4/12/2007				<5	
10/17/2007				5.7	
4/17/2008				7	
10/24/2008				6.6	
4/21/2009				5.2	
10/26/2009				8.3	
4/12/2010				6.8	
10/30/2010				10.8	
5/25/2011				11.5	
5/25/2012				8.2	
5/28/2013				6.9	
5/31/2014				3.5	
5/29/2015				3.3	
3/22/2016	4.68	4.89			
3/23/2016				1.8 (J)	
5/18/2016	4.67	5.09		4.1	
7/11/2016	4.75				
7/12/2016		5.27		3.8 (J)	
9/12/2016		4.94	5.55	3.9 (J)	
9/13/2016	4.56				
11/17/2016	4.6				
11/18/2016		4.82	5.14	5.4	
1/18/2017	4.68	5.02	5.27		
1/19/2017				<5	
2/10/2017			5.14		
3/21/2017	4.39	4.82	4.96		
3/22/2017				<5	
4/14/2017			5.07		
5/23/2017	4.61		5.01		
5/24/2017		4.87		2 (J)	
6/26/2017			4.93		
10/17/2017	4.51	5	4.93	<5	
11/30/2017			4.81		
5/31/2018	4.75	5.42	5.11	3 (J)	
11/7/2018				3.1 (J)	
11/8/2018	4.71	5.02	5.09		
4/22/2019	4.49	4.94	4.97	2.22	
9/27/2019					2.36

Prediction Limit

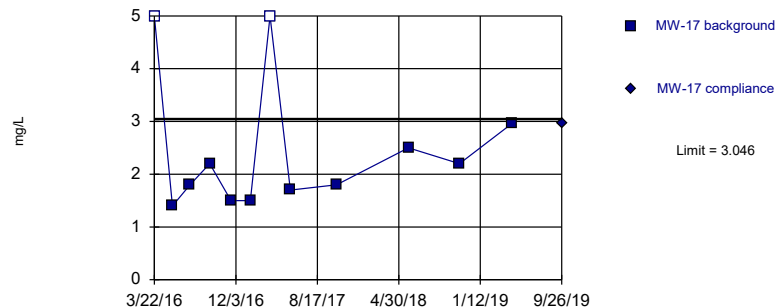
Constituent: Sulfate Analysis Run 1/3/2020 9:33 AM View: Intrawell PL

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16
3/22/2016			3 (J)		<5		<5	
3/23/2016	<5							
5/18/2016	1.9		3.9 (J)		<5		<5	
7/11/2016							<5	
7/12/2016	2 (J)		3.9 (J)		<5			
9/12/2016	2 (J)		4.5 (J)		<5			
9/13/2016							1.7 (J)	
11/17/2016							<5	
11/18/2016			4.2 (J)					
11/19/2016	1.7 (J)				<5			
1/18/2017	<5		3.8 (J)				<5	
1/19/2017					<5			
3/21/2017			<5 (*)		<5		<5	
3/22/2017	<5							
5/23/2017					<5		<5	
5/24/2017	<5		3 (J)					
10/17/2017	<5		3.4 (J)		<5		<5	
5/31/2018			4.1 (J)				2.2 (J)	
6/1/2018	1.8 (J)				1.5 (J)			
11/7/2018	1.8 (J)				1.5 (J)			
11/8/2018			3.3 (J)				1.7 (J)	
4/22/2019			4.66				2.52	
4/23/2019	1.99				1.43			
9/26/2019		1.95		4.23		1.2		2.28

Within Limit

Prediction Limit
Intrawell Parametric

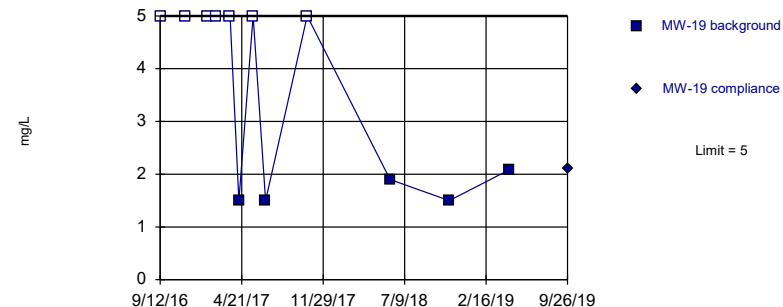


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.349, Std. Dev.=0.1777, n=12, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

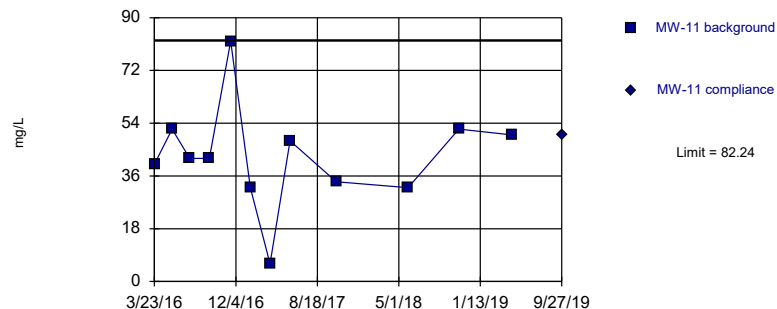


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

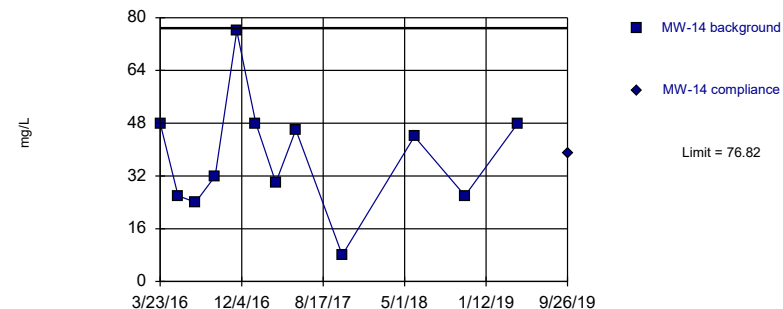


Background Data Summary: Mean=42.67, Std. Dev.=17.73, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=38, Std. Dev.=17.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

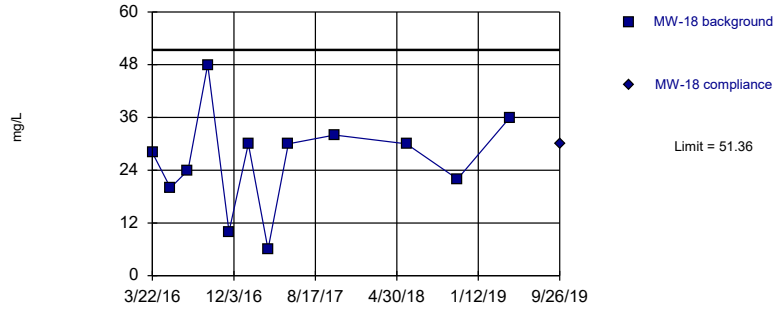
Prediction Limit

Constituent: Sulfate, Total Dissolved Solids Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17	MW-19	MW-19	MW-11	MW-11	MW-14	MW-14
3/22/2016	<5							
3/23/2016					40		48	
5/18/2016	1.4				52		26	
7/12/2016	1.8 (J)				42		24	
9/12/2016	2.2 (J)		<5		42		32	
11/18/2016	1.5 (J)		<5		82			
11/19/2016							76	
1/18/2017	1.5 (J)		<5				48	
1/19/2017					32			
2/10/2017			<5					
3/21/2017	<5		<5					
3/22/2017					6		30	
4/14/2017			1.5 (J)					
5/23/2017			<5					
5/24/2017	1.7 (J)				48		46	
6/26/2017			1.5 (J)					
10/17/2017	1.8 (J)		<5		34		8	
5/31/2018	2.5 (J)		1.9 (J)		32			
6/1/2018							44	
11/7/2018					52		26	
11/8/2018	2.2 (J)		1.5 (J)					
4/22/2019	2.96		2.09		50			
4/23/2019							48	
9/26/2019		2.96		2.1				39
9/27/2019						50		

Within Limit

Prediction Limit
Intrawell Parametric

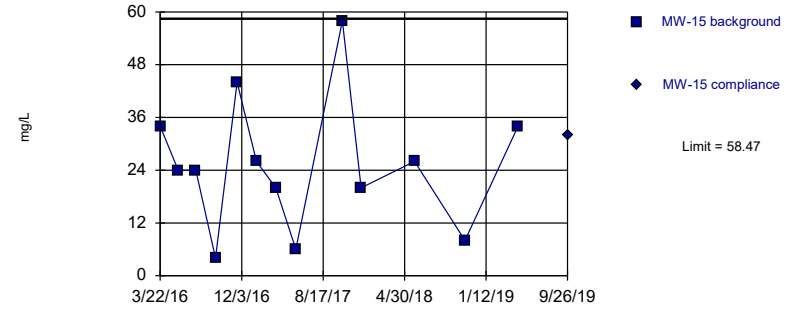


Background Data Summary: Mean=26.33, Std. Dev.=11.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

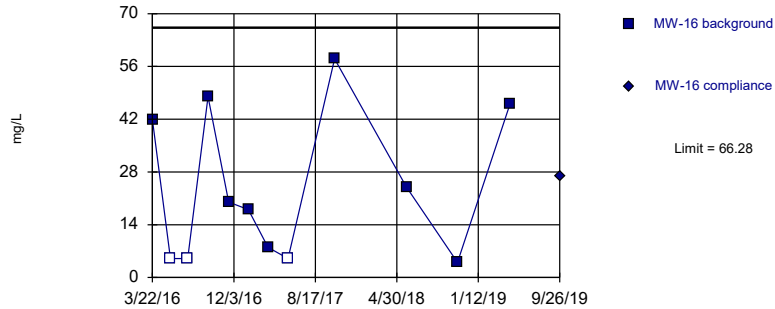


Background Data Summary: Mean=25.23, Std. Dev.=15.16, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric

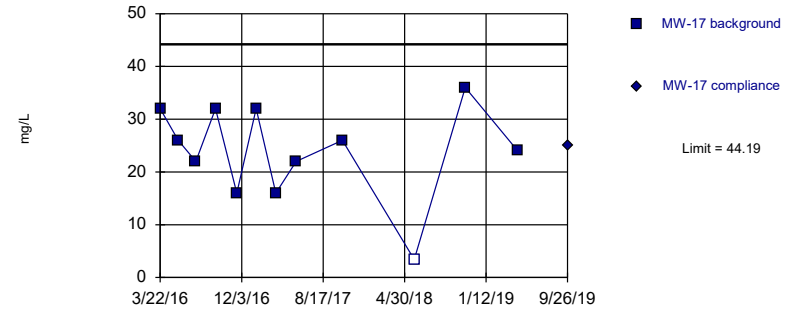


Background Data Summary (after Kaplan-Meier Adjustment): Mean=23.33, Std. Dev.=19.24, n=12, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8564, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=23.95, Std. Dev.=9.067, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

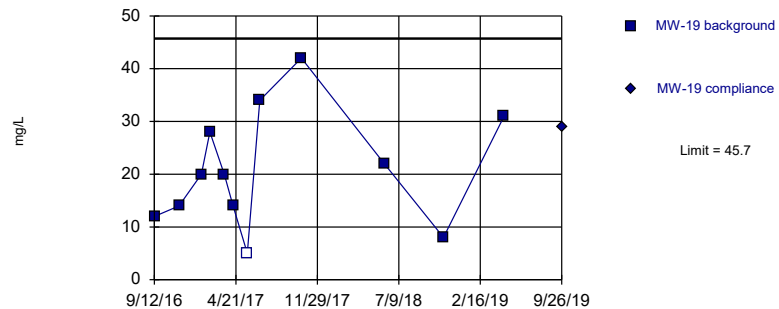
Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:33 AM View: Intrawell PL
 Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18	MW-15	MW-15	MW-16	MW-16	MW-17	MW-17
3/22/2016	28		34		42		32	
5/18/2016	20		24		<5		26	
7/11/2016					<5			
7/12/2016	24		24				22	
9/12/2016	48		4 (J)				32	
9/13/2016					48			
11/17/2016					20			
11/18/2016	10						16	
11/19/2016			44					
1/18/2017	30				18		32	
1/19/2017			26					
3/21/2017	6		20		8		16	
5/23/2017			6		<5			
5/24/2017	30						22	
10/17/2017	32		58		58		26	
12/15/2017			20 (RS)					
5/31/2018	30				24		<3.4	
6/1/2018			26					
11/7/2018			8					
11/8/2018	22				4 (J)		36	
4/22/2019	36				46		24	
4/23/2019			34					
9/26/2019		30		32		27		25

Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=20.83, Std. Dev.=11.14, n=12, 8.333% NDs. Normality test: Shapiro Wilk
@alpha = 0.01, calculated = 0.9659, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132).
Report alpha = 0.00188.

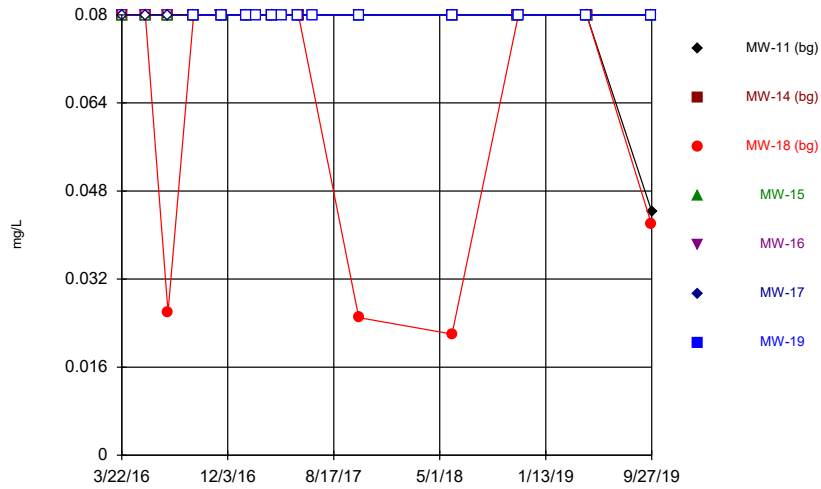
Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:31 AM View: Intrawell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:33 AM View: IntraWell PL
Plant Daniel Client: Southern Company Data: NAMU CCR

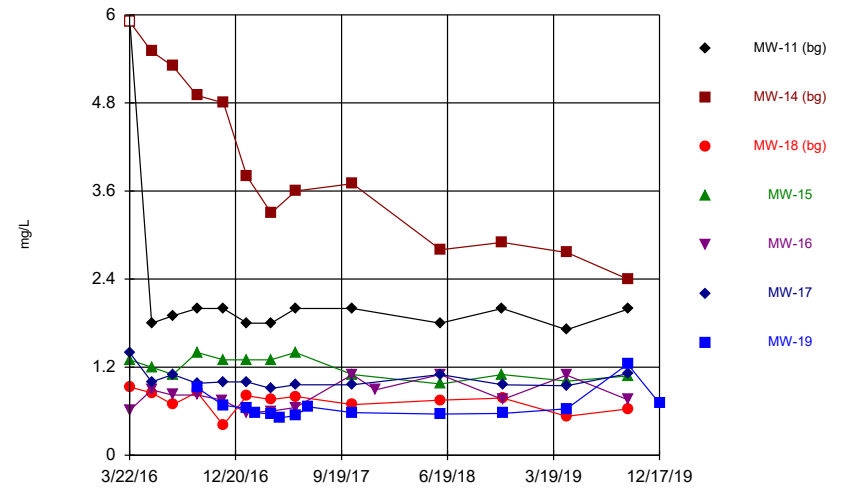
	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017	42	
5/31/2018	22	
11/8/2018	8	
4/22/2019	31	
9/26/2019		29

Time Series



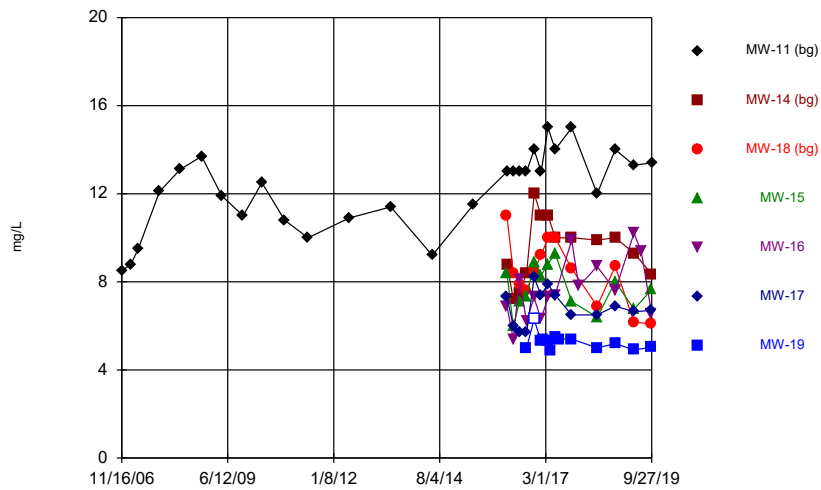
Constituent: Boron Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



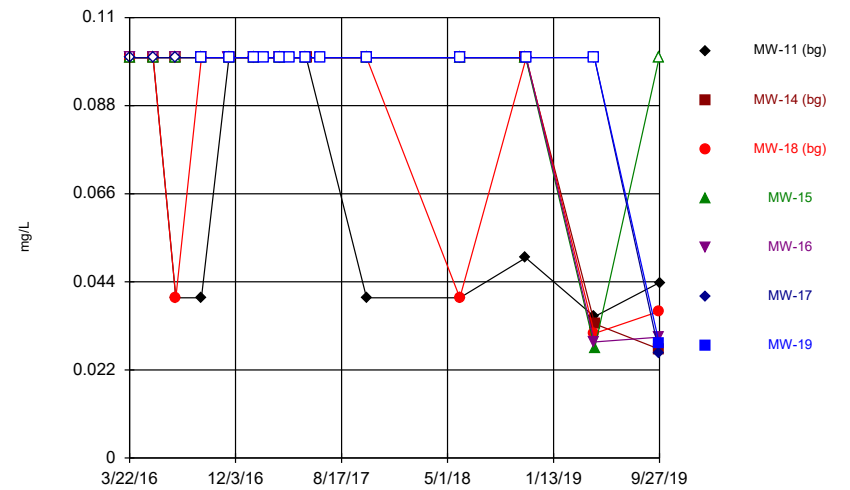
Constituent: Calcium Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



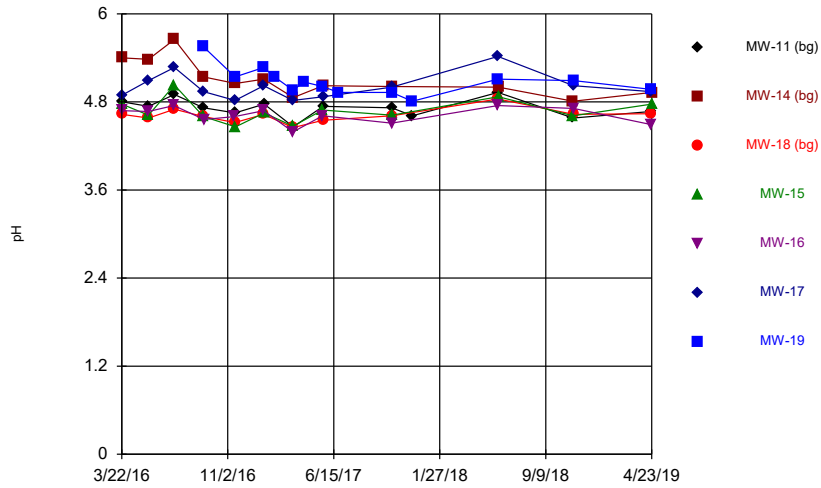
Constituent: Chloride Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



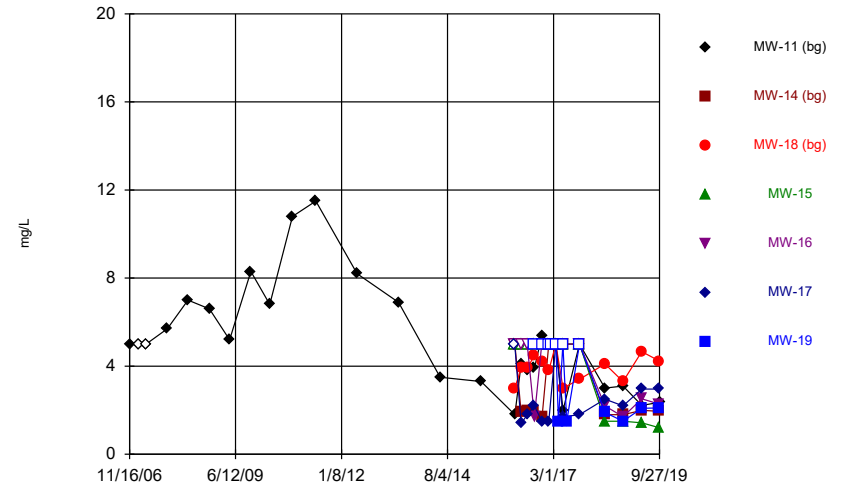
Constituent: Fluoride Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



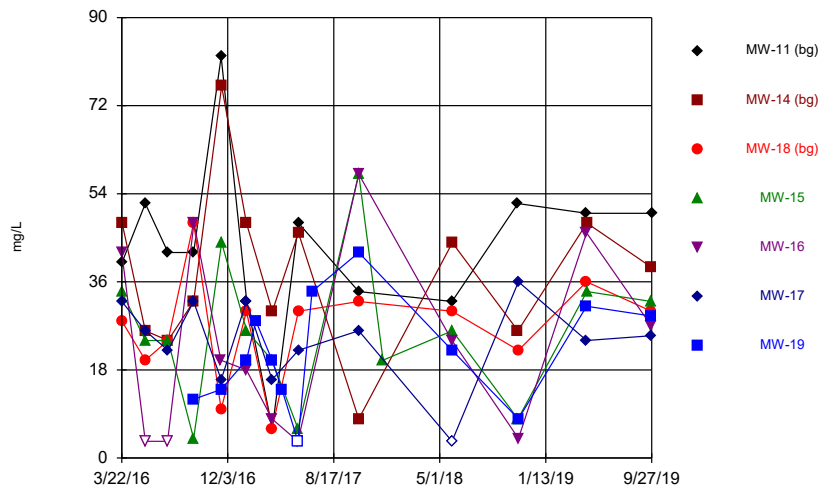
Constituent: pH Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



Constituent: Sulfate Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/3/2020 9:46 AM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR