

# 2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

## NORTH AND SOUTH ASH IMPOUNDMENTS MONTROSE GENERATING STATION CLINTON, MISSOURI

Presented To:  
Eversource Energy, Inc.

**SCS ENGINEERS**

27213168.20 | January 2021  
Revision 1, April 2021  
Revision 2, December 20, 2022

8575 W 110<sup>th</sup> Street, Suite 100  
Overland Park, Kansas 66210  
913-681-0030

## CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2020 Annual Groundwater Monitoring and Corrective Action Report for the North and South Ash Impoundments at the Montrose Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).

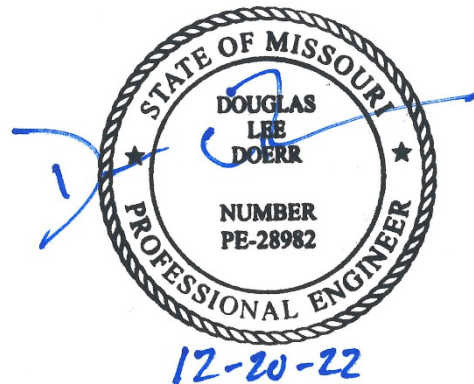


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John R. Rockhold, R.G.

SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that the 2020 Annual Groundwater Monitoring and Corrective Action Report for the North and South Ash Impoundments at the Montrose Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



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Douglas L. Doerr, P.E.

SCS Engineers

# 2020 Groundwater Monitoring and Corrective Action Report

Revision Number	Revision Date	Revision Sections	Summary of Revisions
0	January 29, 2021	N A	Original
1	April 7, 2021	Table of Contents Appendix A	Addition of Potentiometric Surface Maps to Appendix A.
2	December 20, 2022	Addendum 1	Added Addendum 1

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## 1 INTRODUCTION

This 2020 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the “Coal Combustion Residuals (CCR) Final Rule” (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared for Evergy Metro, Inc. (Evergy) to fulfill the requirements of 40 CFR 257.90 (e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2020 Annual Groundwater Monitoring and Corrective Action Report for the North and South Ash Impoundments at the Montrose Generating Station.

### 1.1 § 257.90(e)(6) SUMMARY

*A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:*

#### 1.1.1 § 257.90(e)(6)(i) Initial Monitoring Program

*At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;*

At the start of the current annual reporting period, (January 1, 2020), the CCR Impoundments were operating under a detection monitoring program in compliance with § 257.94.

#### 1.1.2 § 257.90(e)(6)(ii) Final Monitoring Program

*At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;*

At the end of the current annual reporting period, (December 31, 2020), the CCR Impoundments were operating under a detection monitoring program in compliance with 40 CFR 257.94. Following the observation visit for CCR removal certification by a licensed professional engineer July 9, 2020, the post-CCR removal groundwater sampling event took place on July 27, 2020. The CCR Impoundments were certified closed January 20, 2021, in accordance with 40 CFR 257.102(c) Closure by Removal of CCR.

#### 1.1.3 § 257.90(e)(6)(iii) Statistically Significant Increases

*If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e):*

*(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and*

Not applicable because statistically significant increases over background were not identified.

*(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.*

Not applicable because an assessment monitoring program was not initiated.

#### 1.1.4 § 257.90(e)(6)(iv) Statistically Significant Levels

*If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to § 257.95(g) include all of the following:*

*(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;*

Not applicable because there was no assessment monitoring conducted.

*(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;*

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

*(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and*

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

*(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.*

Not applicable because there was no assessment of corrective measures initiated for the CCR Unit.

#### 1.1.5 § 257.90(e)(6)(v) Selection of Remedy

*Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and*

Not applicable because corrective measures are not required.

#### 1.1.6 § 257.90(e)(6)(vi) Remedial Activities

*Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.*

Not applicable because corrective measures are not required.

## 2 § 257.90(E) ANNUAL REPORT REQUIREMENTS

*Annual groundwater monitoring and corrective action report.* For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

### 2.1 § 257.90(E)(1) SITE MAP

*A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;*

A site map with an aerial image showing the North and South Ash Impoundments and all background (or upgradient) and downgradient monitoring wells with identification numbers for the North and South Ash Impoundments groundwater monitoring program is provided as **Figure 1** in **Appendix A**.

### 2.2 § 257.90(E)(2) MONITORING SYSTEM CHANGES

*Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;*

No new monitoring wells were installed and no wells were decommissioned as part of the CCR groundwater monitoring program for the North and South Ash Impoundments in 2020.

### 2.3 § 257.90(E)(3) SUMMARY OF SAMPLING EVENTS

*In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;*

Only detection monitoring was required to be conducted during the reporting period (2020). Samples collected in 2020 were collected and analyzed for Appendix III detection monitoring constituents. Additionally, Appendix IV constituents were analyzed with the spring event for potential future updating of background data in conformance with EPA Unified Guidance and industry standards. Results of the sampling events are provided in **Appendix B, Table 1** (Appendix III Detection with Supplemental and Post-CCR Removal Appendix IV Monitoring Results), and **Table 2** (Detection Monitoring Field Measurements).

A post-CCR removal monitoring event was conducted on July 27, 2020 following the July 9, 2020 CCR removal certification visit by a professional engineer. The post-CCR removal monitoring event was conducted as required by 40 CFR 257.102(c), which required the sampling of Appendix IV constituents. Results of the post-CCR removal monitoring event are also included in the tables in **Appendix B**.

The tables include Fall 2019 semiannual detection monitoring event verification sample data collected and analyzed in 2020; Spring 2020 semiannual detection monitoring data, verification sample data, and supplementary Appendix IV sample data; and, the July 2020 post-CCR removal groundwater monitoring data. The dates of sample collection and the monitoring program requiring the sample are also provided in these tables.

### 2.4 § 257.90(E)(4) MONITORING TRANSITION NARRATIVE

*A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and*

There was no transition between monitoring programs in 2020. Only detection monitoring was conducted in 2020. However, a post-CCR removal monitoring event was conducted in July 2020 following CCR removal in preparation for certification of closure by removal.

### 2.5 § 257.90(e)(5) OTHER REQUIREMENTS

*Other information required to be included in the annual report as specified in § 257.90 through 257.98.*

A summary of potentially required information and the corresponding section of the Rule is provided in the following sections. In addition, the information, if applicable, is provided.

#### 2.5.1 § 257.90(e) Program Status

*Status of Groundwater Monitoring and Corrective Action Program.*

The groundwater monitoring and corrective action program was in detection monitoring until CCR removal from the Impoundments at which time post-CCR removal sampling was performed.

*Summary of Key Actions Completed.*

- a. completion of the Fall 2019 verification sampling and analyses per the certified statistical method,
- b. completion of the statistical evaluation of the Fall 2019 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- c. completion of the 2019 Annual Groundwater Monitoring and Corrective Action Report,
- d. completion of the Spring 2020 semiannual detection monitoring sampling and analysis event with subsequent verification sampling per the certified statistical method, and supplemental Appendix IV sample analysis,



- e. completion of the statistical evaluation of the Spring 2020 semiannual detection monitoring sampling and analysis event per the certified statistical method, and
- f. post-CCR removal sampling and analysis event in July 2020 in preparation for certification of closure by removal.

### *Description of Any Problems Encountered.*

No noteworthy problems were encountered.

### *Discussion of Actions to Resolve the Problems.*

Not applicable because no noteworthy problems were encountered.

### *Projection of Key Activities for the Upcoming Year (2021).*

Completion of the certification of closure by removal of CCR from the CCR Impoundments. No further groundwater monitoring is required.

## 2.5.2 § 257.94(d)(3) Demonstration for Alternative Detection Monitoring Frequency

*The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).*

Not applicable because no alternative monitoring frequency for detection monitoring and certification was pursued.

## 2.5.3 § 257.94(e)(2) Detection Monitoring Alternate Source Demonstration

*Demonstration that a source other than the CCR unit caused the statistically significant increase (SSI) over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. In addition, certification of the demonstration is to be included in the annual report.*

Not applicable because no such demonstration was conducted.

## 2.5.4 § 257.95(c)(3) Demonstration for Alternative Assessment Monitoring Frequency

*The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the*

basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable because there was no assessment monitoring conducted.

### 2.5.5 § 257.95(d)(3) Assessment Monitoring Concentrations and Groundwater Protection Standards

*Include the concentrations of Appendix III and detected Appendix IV constituents from the assessment monitoring, the established background concentrations, and the established groundwater protection standards.*

Not applicable because there was no assessment monitoring conducted.

### 2.5.6 § 257.95(g)(3)(ii) Assessment Monitoring Alternate Source Demonstration

*Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section and may return to detection monitoring if the constituents in appendices III and IV to this part are at or below background as specified in paragraph (e) of this section. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.*

Not applicable because there was no assessment monitoring conducted.

### 2.5.7 § 257.96(a) Demonstration for Additional Time for Assessment of Corrective Measures

*Within 90 days of finding that any constituent listed in appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.*

Not applicable because there was no assessment monitoring conducted.

## 2.6 § 257.90(e)(6) OVERVIEW SUMMARY

*A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit.*

§ 257.90(e)(6) is addressed in Section 1.1 of this report.

## 3 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. The information contained in this report is a reflection of the conditions encountered at the Montrose Generating Station at the time of fieldwork. This report includes a review and compilation of the required information and does not reflect any variations of the subsurface, which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the result of this work should recognize the limitation of the methods used. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of Evergy Metro, Inc. for specific application to the Montrose Generating Station North and South Ash Impoundments. No warranties, express or implied, are intended or made.

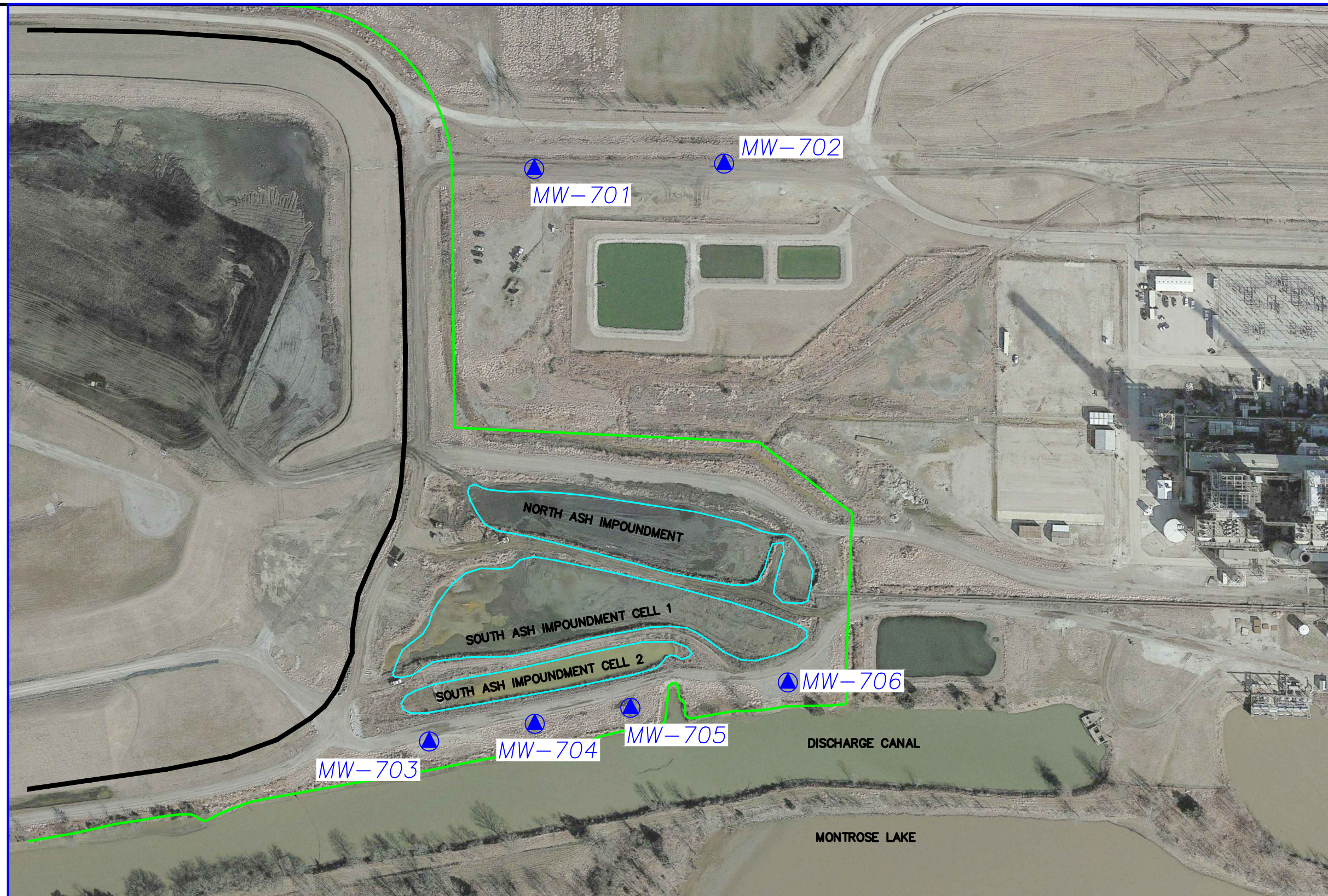
## APPENDIX A

### FIGURES

Figure 1: Site Map

Figure 2: Potentiometric Surface Map (May 2020)

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**LEGEND:**

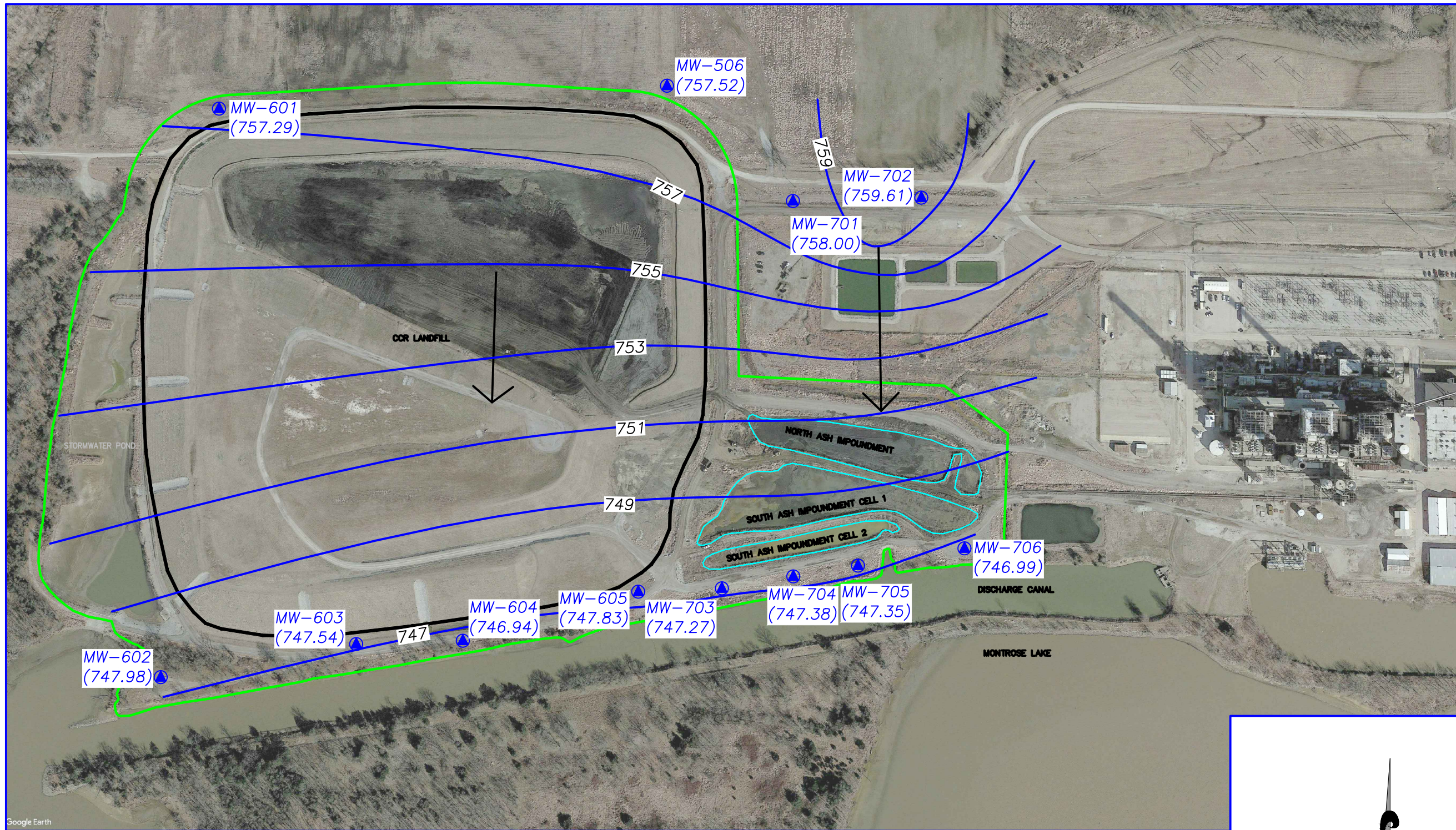
- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-706 CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. MONITOR WELL LOCATIONS PROVIDED BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.



<p><b>CLIENT</b></p> <p>EVERGY METRO, INC. MONTROSE GENERATING STATION MONTROSE, MISSOURI</p>	<p><b>SHEET TITLE</b></p> <p>SITE MAP NORTH AND SOUTH ASH IMPOUNDMENT CCR GROUNDWATER MONITORING SYSTEM</p> <p><b>PROJECT TITLE</b></p> <p>2020 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT</p>	<p><b>REV.</b></p> <p>1</p>	<p><b>DATE</b></p> <p>-</p>	<p><b>CK BY</b></p> <p>-</p>	
<p><b>ENVIRONMENTAL CONSULTANTS AND CONTRACTORS</b></p> <p><b>SCS ENGINEERS</b> 8575 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH. (913) 881-0030 FAX. (913) 881-0012</p>		<p><b>DATE</b></p> <p>1/14/2021</p>		<p><b>FIGURE NO.</b></p> <p><b>1</b> of 1</p>	
<p><b>PROJ. NO.</b></p> <p>27213168-20</p>		<p><b>DRW. BY</b></p> <p>ALR</p>		<p><b>CHK. BY</b></p> <p>JRR</p>	
<p><b>DATE</b></p> <p>1/14/2021</p>		<p><b>CHK. BY</b></p> <p>JRR</p>		<p><b>PROJ. MGR.</b></p> <p>JRR</p>	

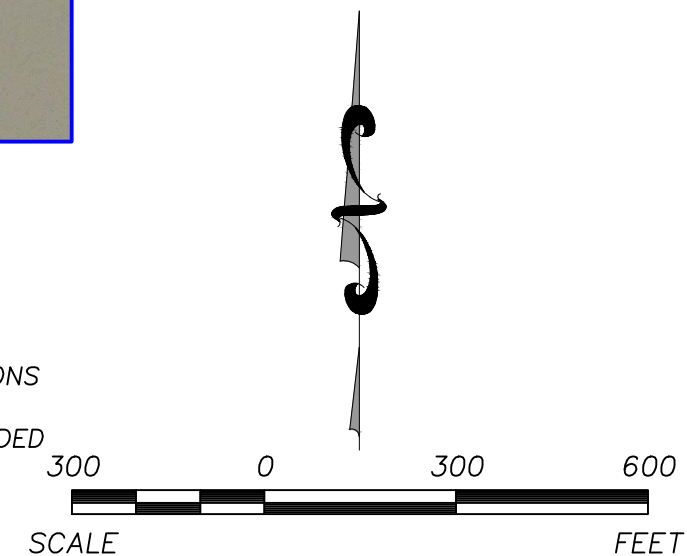


**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 (757.17) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- GROUNDWATER FLOW ARROW

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. MONITOR WELL LOCATIONS PROVIDED BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.



<b>CLIENT</b>	EVERGY METRO, INC. MONTROSE GENERATING STATION MONTROSE, MISSOURI	<b>CK BY</b>	-
<b>ENVIRONMENTAL CONSULTANTS AND CONTRACTORS</b>	SCS ENGINEERS 2721 168.20 FIG2_MAY20.DWG	<b>REV.</b>	<b>DATE</b>
8575 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH. (913) 881-0030 FAX. (913) 881-0012	DRW. BY: MIBJ CHK. BY: JRR	1	-
<b>CADD FILE:</b>	DATE:	2	-
2721 168.20 FIG2_MAY20.DWG	6/29/2020	<b>PROJECT TITLE</b>	
<b>FIGURE NO.</b>	<b>POTENTIOMETRIC SURFACE MAP (MAY 2020)</b>		
<b>2</b>	<b>MONTROSE GROUNDWATER 2020</b>		

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## APPENDIX B

### TABLES

Table 1: Appendix III Detection with Supplemental and Post-CCR  
Removal Appendix IV Monitoring Results

Table 2: Detection Monitoring Field Measurements

**Table 1**  
**North and South Ash Impoundments**  
**Appendix III Detection with Supplemental and Post-CCR Removal Appendix IV Monitoring Results**  
**Evergy Montrose Generating Station**

Well Number	Sample Date	Appendix III Constituents							Appendix IV Constituents														
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Radium Combined (pCi/L)
MW-701	5/21/2020	<0.200	432	496	1.09	4.35	1910	3540	<0.00400	<0.00200	0.00850	0.00211	0.00507	<0.0100	0.0309	1.09	<0.00500	0.197	0.000476	<0.00500	0.00789	<0.00200	0.575
MW-701	7/27/2020	---	---	---	---	**4.38	---	---	<0.00400	<0.00200	0.00826	<0.00200	0.00431	<0.0100	0.0221	1.02	<0.00500	0.186	0.000287	<0.00500	0.00706	<0.00200	2.18
MW-702	5/21/2020	<0.200	423	238	0.260	6.28	1430	2780	<0.00400	0.00309	0.0119	<0.00200	<0.00100	<0.0100	<0.0100	0.260	<0.00500	0.0519	<0.000200	<0.00500	<0.00200	<0.00200	0.863
MW-702	7/27/2020	---	---	---	---	**6.63	---	---	<0.00400	<0.00200	0.0141	<0.00200	<0.00100	<0.0100	0.00461	0.185	<0.00500	0.0439	<0.000200	<0.00500	<0.00200	<0.00200	0.455
MW-703	5/21/2020	<0.200	192	8.16	0.197	6.08	735	1170	<0.00400	<0.00200	0.0352	<0.00200	<0.00100	<0.0100	<0.0100	0.197	<0.00500	0.0584	<0.000200	<0.00500	<0.00200	<0.00200	0.739
MW-703	7/27/2020	---	---	---	---	**6.50	---	---	<0.00400	<0.00200	0.0394	<0.00200	<0.00100	<0.0100	0.00443	0.131	<0.00500	0.0535	<0.000200	<0.00500	<0.00200	<0.00200	3.07
MW-704	5/21/2020	<0.200	156	3.03	<0.150	6.30	722	1120	<0.00400	0.0137	0.0526	<0.00200	<0.00100	<0.0100	<0.0100	<0.150	<0.00500	0.0545	<0.000200	<0.00500	<0.00200	<0.00200	1.77
MW-704	7/27/2020	---	---	---	---	**6.40	---	---	<0.00400	0.0131	0.0561	<0.00200	<0.00100	<0.0100	0.00708	0.119	<0.00500	0.0505	<0.000200	<0.00500	<0.00200	<0.00200	0.894
MW-705	5/21/2020	<0.200	185	10.4	0.205	6.52	796	1290	<0.00400	0.00647	0.0547	<0.00200	<0.00100	<0.0100	<0.0100	0.205	<0.00500	0.0695	<0.000200	<0.00500	<0.00200	<0.00200	0.945
MW-705	7/14/2020	---	*163	---	---	**6.71	*705	*1190	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-705	7/27/2020	---	---	---	---	**6.59	---	---	<0.00400	0.0045	0.0458	<0.00200	<0.00100	<0.0100	<0.00200	0.196	<0.00500	0.0615	<0.000200	<0.00500	<0.00200	<0.00200	2.43
MW-706	5/21/2020	0.269	270	29.5	0.165	6.28	1110	1800	<0.00400	0.0124	0.0304	<0.00200	<0.00100	<0.0100	0.0103	0.165	<0.00500	0.0472	<0.000200	<0.00500	<0.00200	<0.00200	1.58
MW-706	7/14/2020	*0.228	---	---	---	**6.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-706	7/27/2020	---	---	---	---	**6.55	---	---	<0.00400	0.0136	0.0310	<0.00200	<0.00100	<0.0100	0.00709	0.184	<0.00500	0.0498	<0.000200	<0.00500	<0.00200	<0.00200	2.07

\* Verification Sample obtained per certified statistical method and Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009.

\*\*Extra Sample for Quality Control Validation or per Standard Sampling Procedure

mg/L - milligrams per liter

pCi/L - picocuries per liter

S.U. - Standard Units

--- Not Sampled



**Table 2**  
**North and South Ash Impoundments**  
**Detection Monitoring Field Measurements**  
**Evergy Montrose Generating Station**

Well Number	Sample Date	pH (S.U.)	Specific Conductivity (µS)	Temperature (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-701	5/21/2020	4.35	3800	17.37	0.0	347	7.53	5.48	758.00
MW-701	7/27/2020	**4.38	3400	20.14	0.0	320	6.02	9.54	753.94
MW-702	5/21/2020	6.28	3140	19.07	5.9	143	0.74	4.14	759.61
MW-702	7/27/2020	**6.63	2880	19.34	13.3	130	0.00	7.55	756.20
MW-703	5/21/2020	6.08	1520	18.24	18.1	52	0.00	13.16	747.27
MW-703	7/27/2020	**6.50	1610	19.43	21.2	-63	6.65	11.90	748.53
MW-704	5/21/2020	6.30	1390	19.54	21.1	-84	0.33	12.50	747.38
MW-704	7/27/2020	**6.40	1360	20.14	38.4	-85	6.19	11.38	748.50
MW-705	5/21/2020	6.52	1580	17.77	6.0	-99	0.37	10.58	747.35
MW-705	7/14/2020	**6.71	1480	19.05	0.0	-60	0.32	9.20	748.73
MW-705	7/27/2020	**6.59	1360	19.46	2.1	-118	0.00	9.43	748.50
MW-706	5/21/2020	6.28	2040	19.74	11.6	-7	0.72	12.21	746.99
MW-706	7/14/2020	**6.52	2120	19.24	8.8	-45	0.87	10.27	748.93
MW-706	7/27/2020	**6.55	1940	21.71	9.6	-84	5.30	10.48	748.72

\* Verification Sample obtained per certified statistical method and Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009.

\*\*Extra Sample for Quality Control Validation or per Standard Sampling Procedure

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit

## ADDENDUM 1

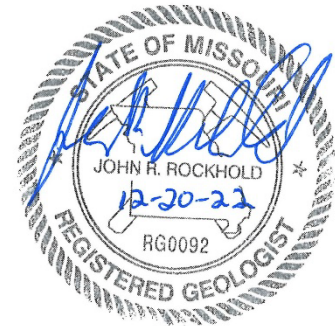
# 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1

December 20, 2022  
File No. 27213168.20

To: Evergy Metro, Inc.  
Jared Morrison – Director, Water and Waste Programs

From: SCS Engineers  
Douglas L. Doerr, P.E.  
John R. Rockhold, P.G.

Subject: 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1  
Evergy Metro, Inc.  
North and South Ash Impoundments  
Montrose Generating Station – Clinton, Missouri



The North and South Ash Impoundments at the Montrose Generating Station are subject to the groundwater monitoring and corrective action requirements of the “Coal Combustion Residuals (CCR) Final Rule” (Rule); as described in CFR 40 257.90 through CFR 40 257.98. An Annual Groundwater Monitoring and Corrective Action (GWMCA) Report documenting activities completed in 2020 for the North and South Ash Impoundments was completed and placed in the facility’s operating record on January 29, 2021, as required by the Rule. The report was subsequently revised and placed in the operating record April 7, 2021. The Annual GWMCA report was to fulfill the requirements specified in 40 CFR 257.90(e).

This Addendum has been prepared to supplement the operating record in recognition of comments received by Evergy from the U.S. Environmental Protection Agency (USEPA) on January 11, 2022. In addition to the information listed in 40 CFR 257.90(e), the USEPA indicated in their comments that the GWMCA Report contain the following:

- Results of laboratory analysis of groundwater or other environmental media samples for 40 CFR 257 Appendix III and Appendix IV constituents or other constituents, such as those supporting characterization of site conditions that may ultimately affect a remedy.
- Required statistical analysis performed on laboratory analysis results; and
- Calculated groundwater flow rate and direction.

This information is not specifically referred to in 40 CFR 257.90(e) for inclusion in the GWMCA Reports; however, it is routinely collected, determined and maintained in Evergy’s files and is being provided in the attachments to this addendum.

The attachments to this addendum are as follows:

- Attachment 1 – Laboratory Analytical Reports:  
Includes laboratory data packages with supporting information such as case narrative, sample and method summary, analytical results, quality control, and chain-of-custody documentation. The laboratory data packages for the following sampling events are provided:



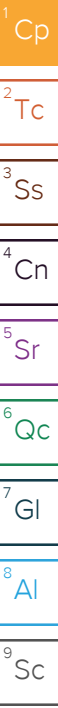
- May 2020 – Spring 2020 semiannual detection monitoring sampling event and Appendix IV.
- July 14, 2020 – First verification sampling for the Spring 2020 detection monitoring sampling event.
- July 27, 2020 – Closure sampling event.
  
- Attachment 2 - Statistical Analyses:  
Includes summary of statistical results, prediction limit plots, prediction limit background data, detection sample results, first and second verification re-sample results (when applicable), extra sample results for pH (collected as part of the approved sampling procedures), input parameters, and a Prediction Limit summary table. Statistical analyses completed in 2020 included the following:
  - Fall 2019 semiannual detection monitoring statistical analyses.
  - Spring 2020 semiannual detection monitoring statistical analyses.
  
- Attachment 3 - Groundwater Potentiometric Surface Maps:  
Includes groundwater potentiometric surface maps with the measured groundwater elevations at each well and the generalized groundwater flow direction and the calculated groundwater flow rate. Maps for the following sampling events are provided:
  - May 2020 - Spring 2020 semiannual detection monitoring sampling event.
  - July 2020 - Closure sampling event.

Jared Morrison  
December 20, 2022

**ATTACHMENT 1**  
**Laboratory Analytical Reports**

Jared Morrison  
December 20, 2022

**ATTACHMENT 1-1**  
**May 2020 Sampling Event Laboratory Report**



## SCS Engineers - KS

Sample Delivery Group: L1221865  
Samples Received: 05/23/2020  
Project Number: 27213168.18  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:












Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Sr: Sample Results</b>	<b>6</b>	
MW-601 L1221865-01	6	
MW-602 L1221865-02	7	
MW-603 L1221865-03	8	
MW-604 L1221865-04	9	
MW-605 L1221865-05	10	
MW-701 L1221865-06	11	
MW-702 L1221865-07	12	
MW-703 L1221865-08	13	
MW-704 L1221865-09	14	
MW-705 L1221865-10	15	
MW-706 L1221865-11	16	
<b>Qc: Quality Control Summary</b>	<b>17</b>	
Gravimetric Analysis by Method 2540 C-2011	17	
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Metals (ICP) by Method 6010B	21	
<b>Gl: Glossary of Terms</b>	<b>23</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>24</b>	
<b>Sc: Sample Chain of Custody</b>	<b>25</b>	



# SAMPLE SUMMARY



## MW-601 L1221865-01 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 14:47	05/29/20 14:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/29/20 23:47	05/29/20 23:47	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:43	TRB	Mt. Juliet, TN

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## MW-602 L1221865-02 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:20

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 15:05	05/29/20 15:05	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/30/20 00:05	05/30/20 00:05	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:46	TRB	Mt. Juliet, TN

## MW-603 L1221865-03 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:05

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 15:22	05/29/20 15:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/30/20 00:22	05/30/20 00:22	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:49	TRB	Mt. Juliet, TN

## MW-604 L1221865-04 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 15:58	05/29/20 15:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/30/20 01:34	05/30/20 01:34	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 09:56	EL	Mt. Juliet, TN

## MW-605 L1221865-05 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:10

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 16:52	05/29/20 16:52	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/30/20 01:52	05/30/20 01:52	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:05	EL	Mt. Juliet, TN

## MW-701 L1221865-06 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 17:10

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 17:46	05/29/20 17:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	100	05/30/20 02:10	05/30/20 02:10	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:08	EL	Mt. Juliet, TN

# SAMPLE SUMMARY



## MW-702 L1221865-07 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 16:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 18:04	05/29/20 18:04	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	20	05/30/20 02:28	05/30/20 02:28	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:10	EL	Mt. Juliet, TN

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Qc

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Gl

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Al

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Sc

## MW-703 L1221865-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:05

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 18:22	05/29/20 18:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	10	05/30/20 02:46	05/30/20 02:46	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:13	EL	Mt. Juliet, TN

## MW-704 L1221865-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 18:39	05/29/20 18:39	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	10	05/30/20 03:04	05/30/20 03:04	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:16	EL	Mt. Juliet, TN

## MW-705 L1221865-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:00

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 18:57	05/29/20 18:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	10	05/30/20 03:22	05/30/20 03:22	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:19	EL	Mt. Juliet, TN

## MW-706 L1221865-11 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 19:15	05/29/20 19:15	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	20	05/30/20 03:39	05/30/20 03:39	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:21	EL	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	4680000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	53800		1000	1	05/29/2020 14:47	<a href="#">WG1483801</a>
Fluoride	462		150	1	05/29/2020 14:47	<a href="#">WG1483801</a>
Sulfate	3230000		500000	100	05/29/2020 23:47	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/29/2020 14:43	<a href="#">WG1481522</a>
Calcium	478000		1000	1	05/29/2020 14:43	<a href="#">WG1481522</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1800000		25000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	3990		1000	1	05/29/2020 15:05	<a href="#">WG1483801</a>
Fluoride	ND		150	1	05/29/2020 15:05	<a href="#">WG1483801</a>
Sulfate	1270000		500000	100	05/30/2020 00:05	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	4270		200	1	05/29/2020 14:46	<a href="#">WG1481522</a>
Calcium	313000		1000	1	05/29/2020 14:46	<a href="#">WG1481522</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2840000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	5930		1000	1	05/29/2020 15:22	<a href="#">WG1483801</a>
Fluoride	642		150	1	05/29/2020 15:22	<a href="#">WG1483801</a>
Sulfate	2140000		500000	100	05/30/2020 00:22	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	5370		200	1	05/29/2020 14:49	<a href="#">WG1481522</a>
Calcium	397000		1000	1	05/29/2020 14:49	<a href="#">WG1481522</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2780000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	13300		1000	1	05/29/2020 15:58	<a href="#">WG1483801</a>
Fluoride	489		150	1	05/29/2020 15:58	<a href="#">WG1483801</a>
Sulfate	1920000		500000	100	05/30/2020 01:34	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	3760		200	1	05/30/2020 09:56	<a href="#">WG1481523</a>
Calcium	440000		1000	1	05/30/2020 09:56	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2740000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	60200		1000	1	05/29/2020 16:52	<a href="#">WG1483801</a>
Fluoride	219		150	1	05/29/2020 16:52	<a href="#">WG1483801</a>
Sulfate	1940000		500000	100	05/30/2020 01:52	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	1450		200	1	05/30/2020 10:05	<a href="#">WG1481523</a>
Calcium	411000		1000	1	05/30/2020 10:05	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	3540000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	496000		100000	100	05/30/2020 02:10	<a href="#">WG1483801</a>
Fluoride	1090		150	1	05/29/2020 17:46	<a href="#">WG1483801</a>
Sulfate	1910000		500000	100	05/30/2020 02:10	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:08	<a href="#">WG1481523</a>
Calcium	432000		1000	1	05/30/2020 10:08	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2780000		50000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	238000		20000	20	05/30/2020 02:28	<a href="#">WG1483801</a>
Fluoride	260		150	1	05/29/2020 18:04	<a href="#">WG1483801</a>
Sulfate	1430000		100000	20	05/30/2020 02:28	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:10	<a href="#">WG1481523</a>
Calcium	423000		1000	1	05/30/2020 10:10	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1170000		20000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	8160		1000	1	05/29/2020 18:22	<a href="#">WG1483801</a>
Fluoride	197		150	1	05/29/2020 18:22	<a href="#">WG1483801</a>
Sulfate	735000		50000	10	05/30/2020 02:46	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:13	<a href="#">WG1481523</a>
Calcium	192000		1000	1	05/30/2020 10:13	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1120000		20000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	3030		1000	1	05/29/2020 18:39	<a href="#">WG1483801</a>
Fluoride	ND		150	1	05/29/2020 18:39	<a href="#">WG1483801</a>
Sulfate	722000		50000	10	05/30/2020 03:04	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:16	<a href="#">WG1481523</a>
Calcium	156000		1000	1	05/30/2020 10:16	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1290000		20000	1	05/28/2020 22:59	<a href="#">WG1483378</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	10400		1000	1	05/29/2020 18:57	<a href="#">WG1483801</a>
Fluoride	205		150	1	05/29/2020 18:57	<a href="#">WG1483801</a>
Sulfate	796000		50000	10	05/30/2020 03:22	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:19	<a href="#">WG1481523</a>
Calcium	185000		1000	1	05/30/2020 10:19	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1800000		25000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	29500		1000	1	05/29/2020 19:15	<a href="#">WG1483801</a>
Fluoride	165		150	1	05/29/2020 19:15	<a href="#">WG1483801</a>
Sulfate	1110000		100000	20	05/30/2020 03:39	<a href="#">WG1483801</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	269		200	1	05/30/2020 10:21	<a href="#">WG1481523</a>
Calcium	270000		1000	1	05/30/2020 10:21	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533287-1 05/28/20 22:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		2820	10000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1221865-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-11 05/28/20 22:31 • (DUP) R3533287-3 05/28/20 22:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1800000	1790000	1	0.279		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05/28/20 22:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	7940000	90.2	85.0-115	



Method Blank (MB)

(MB) R3533488-1 05/28/20 22:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		2820	10000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1221865-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-10 05/28/20 22:59 • (DUP) R3533488-3 05/28/20 22:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1290000	1340000	1	3.64		5

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3533488-2 05/28/20 22:59

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8560000	97.3	85.0-115	





Method Blank (MB)

(MB) R3533694-1 05/29/20 13:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1221865-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-03 05/29/20 15:22 • (DUP) R3533694-3 05/29/20 15:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	5930	5970	1	0.664		15
Fluoride	642	647	1	0.667		15

L1221949-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221949-01 05/29/20 21:41 • (DUP) R3533694-7 05/29/20 21:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	1900	1780	1	6.55		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1221865-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-03 05/30/20 00:22 • (DUP) R3533694-8 05/30/20 01:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Sulfate	2140000	2060000	100	3.82		15

Laboratory Control Sample (LCS)

(LCS) R3533694-2 05/29/20 13:47

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39200	98.0	80.0-120	
Fluoride	8000	7820	97.8	80.0-120	
Sulfate	40000	39900	99.7	80.0-120	



L1221865-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221865-04 05/29/20 15:58 • (MS) R3533694-4 05/29/20 16:16 • (MSD) R3533694-5 05/29/20 16:34

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	13300	62200	62400	97.8	98.2	1	80.0-120			0.342	15
Fluoride	5000	489	5250	5290	95.3	96.1	1	80.0-120			0.759	15
Sulfate	50000	1710000	1700000	1700000	0.000	0.000	1	80.0-120	<u>EV</u>	<u>EV</u>	0.0205	15

L1221865-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1221865-11 05/29/20 19:15 • (MS) R3533694-6 05/29/20 19:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50000	29500	77300	95.6	1	80.0-120	
Fluoride	5000	165	4900	94.6	1	80.0-120	
Sulfate	50000	1050000	1070000	23.7	1	80.0-120	<u>EV</u>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Method Blank (MB)

(MB) R3533275-1 05/29/20 13:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Boron	U		25.4	200
Calcium	U		389	1000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05/29/20 13:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Boron	1000	1040	104	80.0-120	
Calcium	10000	10500	105	80.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000		1090	1070	99.9	98.1	1	75.0-125			1.68	20
Calcium	10000		347000	345000	49.5	27.5	1	75.0-125	V	V	0.637	20

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533275-6 05/29/20 13:45 • (MSD) R3533275-7 05/29/20 13:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000		1060	1050	99.3	99.0	1	75.0-125			0.321	20
Calcium	10000		88500	88800	88.6	90.8	1	75.0-125			0.241	20



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Boron	U		25.4	200
Calcium	U		389	1000

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Boron	1000	947	94.7	80.0-120	
Calcium	10000	9760	97.6	80.0-120	

5 Sr

6 Qc

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l		ug/l	ug/l	%	%		%			%	%
Boron	1000		1050	1050	97.4	96.6	1	75.0-125			0.766	20
Calcium	10000		356000	354000	127	109	1	75.0-125	V		0.496	20

7 Gl

8 Al

9 Sc

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l		ug/l	ug/l	%	%		%			%	%
Boron	1000		1060	1050	97.9	96.6	1	75.0-125			1.23	20
Calcium	10000		354000	353000	47.5	39.1	1	75.0-125	V	V	0.239	20



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
V	The sample concentration is too high to evaluate accurate spike recoveries.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

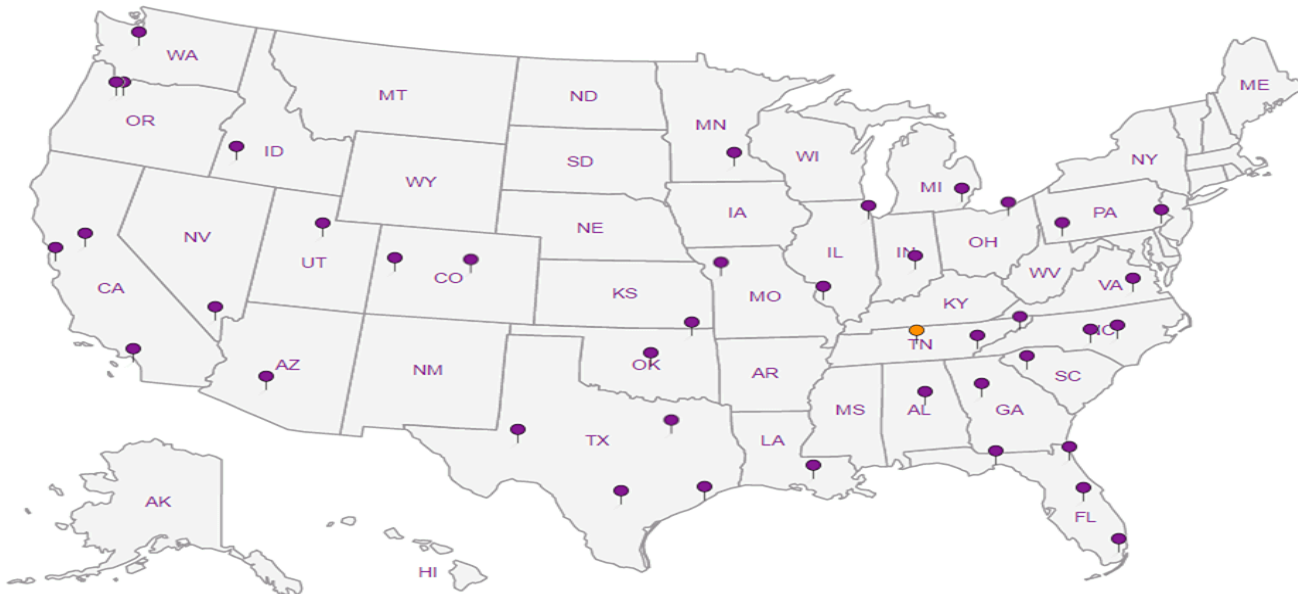
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
**Accounts Payable**  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
**Energy - Montrose Generating Station**

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213168.18**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Quote #

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Date Results Needed  
*Std*

No.  
of  
Cnts

Immediately  
Packed on Ice N \_\_\_ Y X

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts	Anions (Cl, F, SO4)	125mIHDPE-NoPres	B, Ca - 6010 250mIHDPE-HNO3	TDS 250mIHDPE-NoPres									
MW-601	G	GW		5/21/20	1225	3	X	X	X										-01
MW-602		GW			1020	3	X	X	X										-02
MW-603		GW			1205	3	X	X	X										-03
MW-604		GW			1325	3	X	X	X										-04
MW-605		GW			1410	3	X	X	X										-05
MW-701		GW			1710	3	X	X	X										-06
MW-702		GW			1625	3	X	X	X										-07
MW-703		GW			1505	3	X	X	X										-08
MW-704		GW			1525	3	X	X	X										-09
MW-705		GW			1300	3	X	X	X										-10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)  
*h r*

Date:

Time:

Received by: (Signature)  
*Alan Nelson*

5-22-20  
1300

Trip Blank Received: Yes/No  
HCL / MSH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: *43* °C  
Bottles Received: *33*  
*2.4 ± 0.24*

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*Harley M*

Date: *5/23/20* Time: *845*

Hold:

Condition:  
NCF /  OK

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
**Accounts Payable**  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
Evergy - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: 913-681-0030

Client Project #  
**27213168.18**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Quote #

Date Results Needed

Immediately Packed on ice N \_\_\_ Y X

No. of  
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	Analysis	Container	Preservative
MW-706	G	GW		5/21/20	1025	3	X	X	X
<del>MS / MSD</del>		GW				3	X	X	X
<del>DUPLICATE</del>		GW				3	X	X	X

Anions (Cl, F, SO4) 125mlHDPE-NoPres

B. Ca - 6010 250mlHDPE-HNO3

TDS 250mlHDPE-NoPres

SDG # 42285  
Table #  
Acctnum: **AQUAOPKS**  
Template: **T135966**  
Prelogin: **P769449**  
PM: 206 - Jeff Carr  
PB:  
Shipped Via:  
Remarks | Sample # (if only)

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks:  
pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_  
Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier  
Tracking #

Sample Receipt Checklist  
COC Seal Present/intact: NP Y N  
COC Signed/Accurate: Y N  
Bottles arrive intact: Y N  
Correct bottles used: Y N  
Sufficient volume sent: Y N  
If Applicable  
VOA Zero Headspace: Y N  
Preservation Correct/Checked: Y N  
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)  
*[Signature]*

Date: 5/22/20

Time: 1300

Received by: (Signature) Alan Helaro 5-22-20  
1300

Trip Blank Received: Yes (No) 0  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 14.4 °C  
24±0=2.4 Bottles Received: 33

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature) [Signature]

Date: 5/23/20 Time: 845

Hold: Condition: NCF / OK



## SCS Engineers - KS

Sample Delivery Group: L1221866  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Sr: Sample Results</b>	<b>5</b>	<b><sup>3</sup>Ss</b>
<b>MW-506 L1221866-01</b>	<b>5</b>	
<b>DUPLICATE L1221866-02</b>	<b>6</b>	<b><sup>4</sup>Cn</b>
<b>Qc: Quality Control Summary</b>	<b>7</b>	<b><sup>5</sup>Sr</b>
<b>Gravimetric Analysis by Method 2540 C-2011</b>	<b>7</b>	
<b>Wet Chemistry by Method 9056A</b>	<b>8</b>	<b><sup>6</sup>Qc</b>
<b>Metals (ICP) by Method 6010B</b>	<b>10</b>	
<b>Gl: Glossary of Terms</b>	<b>11</b>	<b><sup>7</sup>Gl</b>
<b>Al: Accreditations &amp; Locations</b>	<b>12</b>	<b><sup>8</sup>Al</b>
<b>Sc: Sample Chain of Custody</b>	<b>13</b>	<b><sup>9</sup>Sc</b>

# SAMPLE SUMMARY



## MW-506 L1221866-01 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483379	1	05/28/20 17:57	05/28/20 23:20	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 21:44	05/28/20 21:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 21:57	05/28/20 21:57	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 09:37	EL	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

## DUPLICATE L1221866-02 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483379	1	05/28/20 17:57	05/28/20 23:20	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 23:01	05/28/20 23:01	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 23:14	05/28/20 23:14	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:24	EL	Mt. Juliet, TN

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	<a href="#">WG1483379</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	69300		1000	1	05/28/2020 21:44	<a href="#">WG1482625</a>
Fluoride	ND		150	1	05/28/2020 21:44	<a href="#">WG1482625</a>
Sulfate	1780000		500000	100	05/28/2020 21:57	<a href="#">WG1482625</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 09:37	<a href="#">WG1481523</a>
Calcium	343000	V	1000	1	05/30/2020 09:37	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	<a href="#">WG1483379</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	69200		1000	1	05/28/2020 23:01	<a href="#">WG1482625</a>
Fluoride	ND		150	1	05/28/2020 23:01	<a href="#">WG1482625</a>
Sulfate	1710000		500000	100	05/28/2020 23:14	<a href="#">WG1482625</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:24	<a href="#">WG1481523</a>
Calcium	350000		1000	1	05/30/2020 10:24	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533316-1 05/28/20 23:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	4000	↓	2820	10000

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05/28/20 23:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8250000	93.8	85.0-115	

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533046-3 05/28/20 16:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	8890		1	0.538		15
Fluoride	ND		1	0.000		15
Sulfate	8290		1	2.12		15

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	60400	60300	1	0.0502		15
Fluoride	956	953	1	0.367		15
Sulfate	222000	222000	1	0.0730	E	15

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	40100	100	80.0-120	
Fluoride	8000	8140	102	80.0-120	
Sulfate	40000	40600	102	80.0-120	





Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000		57300	57300	101	101	1	80.0-120			0.0750	15
Fluoride	5000		5230	5230	103	102	1	80.0-120			0.164	15
Sulfate	50000		53100	52800	101	100	1	80.0-120			0.587	15

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	69300	116000	116000	94.0	94.1	1	80.0-120	<u>E</u>	<u>E</u>	0.0372	15
Fluoride	5000	ND	4660	4690	91.5	92.1	1	80.0-120			0.687	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Boron	U		25.4	200
Calcium	U		389	1000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Boron	1000	947	94.7	80.0-120	
Calcium	10000	9760	97.6	80.0-120	

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000	ND	1050	1050	97.4	96.6	1	75.0-125			0.766	20
Calcium	10000	343000	356000	354000	127	109	1	75.0-125	<u>V</u>		0.496	20

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000		1060	1050	97.9	96.6	1	75.0-125			1.23	20
Calcium	10000		354000	353000	47.5	39.1	1	75.0-125	<u>V</u>	<u>V</u>	0.239	20



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
V	The sample concentration is too high to evaluate accurate spike recoveries.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

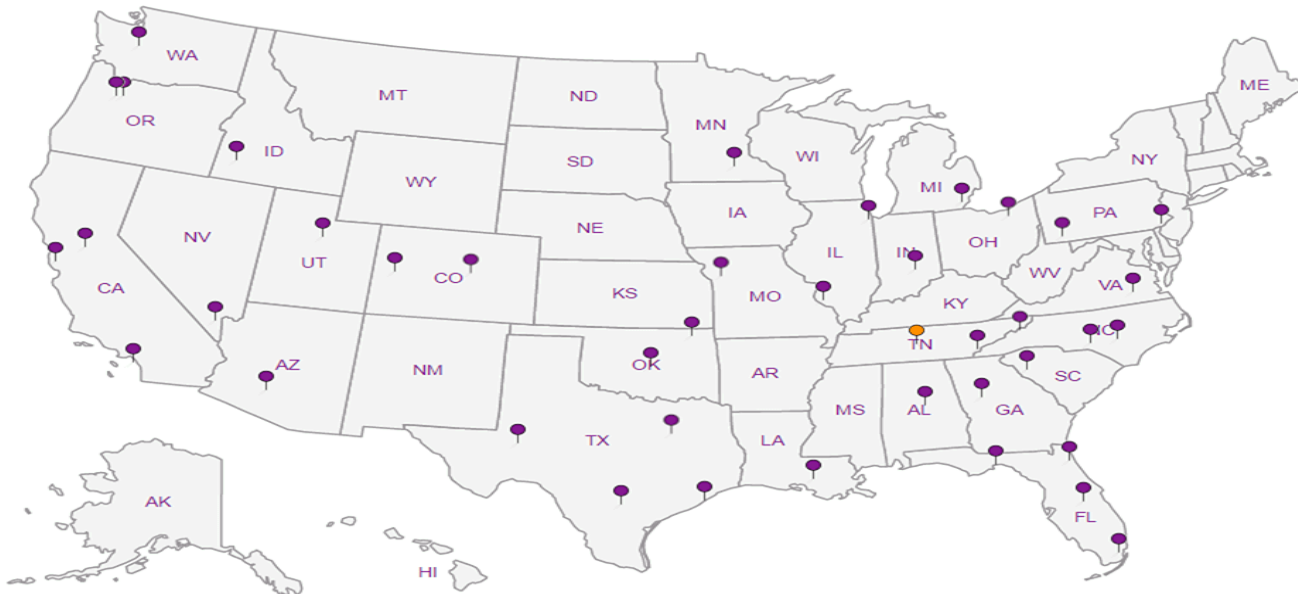
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**  
 8575 W. 110th Street  
 Overland Park, KS 66210

Billing Information:  
**Accounts Payable**  
 8575 W. 110th Street  
 Overland Park, KS 66210

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



Report to:  
**Jason Franks**

Email To:  
 jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
**Evergy - Montrose Generating Station**

City/State Collected:

Please Circle:  
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Immediately Packed on ice N \_\_\_ Y **X**

Date Results Needed  
**Std**

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Antions (Cl <sub>2</sub> , F, SO <sub>4</sub> )	125mIHDPPE-NoPres	B, Ca - 6010 250mIHDPPE-HNO3	TDS 250mIHDPPE-NoPres								
MW-506	G	GW		5-21-20	1435	3	X	X	X									
MW-506 MS/MSD	G	GW		5-21-20	1445	3	X	X	X									
DUPLICATE	G	GW		5-21-20	1435	3	X	X	X									

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



SDG # **U221866**  
 Tab **G034**  
 Acctnum: **AQUAOPKS**  
 Template: **T166717**  
 Prelogin: **P769451**  
 PM: 206 - Jeff Carr  
 Shipped Via:  
 Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_ Temp \_\_\_  
 Flow \_\_\_ Other \_\_\_  
 Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier  
 Tracking #

Sample Receipt Checklist  
 COC Seal Present/intact: \_\_\_ NP \_\_\_ Y \_\_\_ N  
 COC Signed/Accurate: \_\_\_ Y \_\_\_ N  
 Bottles arrive intact: \_\_\_ Y \_\_\_ N  
 Correct bottles used: \_\_\_ Y \_\_\_ N  
 Sufficient volume sent: \_\_\_ Y \_\_\_ N  
 If Applicable  
 VOA Zero Headspace: \_\_\_ Y \_\_\_ N  
 Preservation Correct/Checked: \_\_\_ Y \_\_\_ N  
 RAD Screen <0.5 mR/hr: \_\_\_ Y \_\_\_ N

Relinquished by: (Signature)  
*BR*

Date: **5/22/20**

Time: **1300**

Received by: (Signature) **Alan Nelson**  
**5-22-20 1300**

Trip Blank Received: Yes (No)  
 HCL/MeOH  
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **13.3 °C**  
**2.4 to 2.4**  
 Bottles Received: **9**

If preservation required by LogIn: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*Handwritten signature*

Date: **5/23/20**  
 Time: **845**

Hold: Condition: **NCF / OK**

## SCS Engineers - KS

Sample Delivery Group: L1221868  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
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# SAMPLE SUMMARY



## 506 L1221868-01 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 14:35	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 09:48	EL	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

## DUPLICATE L1221868-02 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 14:35	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:27	EL	Mt. Juliet, TN

4 Cn

5 Sr

## 601 L1221868-03 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 12:25	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:37	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:30	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:09	LD	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

## 602 L1221868-04 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 10:20	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:39	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:38	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:13	LD	Mt. Juliet, TN

9 Sc

## 603 L1221868-05 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 12:05	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:41	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:41	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 22:06	LD	Mt. Juliet, TN

## 604 L1221868-06 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 13:25	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:44	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:16	LD	Mt. Juliet, TN

## 605 L1221868-07 GW

				Collected by	Collected date/time	Received date/time
				Whit Martin	05/21/20 14:10	05/23/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:47	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:20	LD	Mt. Juliet, TN



# SAMPLE SUMMARY



## 701 L1221868-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 17:10

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:53	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:50	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:23	LD	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## 702 L1221868-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 16:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:54	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:53	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:41	LD	Mt. Juliet, TN

## 703 L1221868-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:05

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:56	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:56	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:44	LD	Mt. Juliet, TN

## 704 L1221868-11 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 15:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 08:58	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480612	1	05/27/20 18:40	05/28/20 11:32	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:48	LD	Mt. Juliet, TN

## 705 L1221868-12 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:00

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 09:00	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482049	1	05/26/20 22:12	05/28/20 15:31	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:51	LD	Mt. Juliet, TN

## 706 L1221868-13 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1481594	1	05/26/20 18:15	05/27/20 09:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482049	1	05/26/20 22:12	05/28/20 15:33	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:54	LD	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Lithium	205		15.0	1	05/30/2020 09:48	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 09:48	<a href="#">WG1481523</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Collected date/time: 05/21/20 14:35

L1221868

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Lithium	204		15.0	1	05/30/2020 10:27	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:27	<a href="#">WG1481523</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:37	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	9.73		5.00	1	05/30/2020 10:30	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:30	<a href="#">WG1481523</a>
Cobalt	ND		10.0	1	05/30/2020 10:30	<a href="#">WG1481523</a>
Lithium	286		15.0	1	05/30/2020 10:30	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:30	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Cadmium	1.38		1.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Selenium	4.99		2.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:09	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:39	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	20.0		5.00	1	05/30/2020 10:38	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:38	<a href="#">WG1481523</a>
Cobalt	110		10.0	1	05/30/2020 10:38	<a href="#">WG1481523</a>
Lithium	85.9		15.0	1	05/30/2020 10:38	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:38	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Arsenic	5.24		2.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:13	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:41	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	9.07		5.00	1	05/30/2020 10:41	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:41	<a href="#">WG1481523</a>
Cobalt	35.7		10.0	1	05/30/2020 10:41	<a href="#">WG1481523</a>
Lithium	131		15.0	1	05/30/2020 10:41	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:41	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Cadmium	3.52		1.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Selenium	27.7		2.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 22:06	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:43	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	14.5		5.00	1	05/30/2020 10:44	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:44	<a href="#">WG1481523</a>
Cobalt	ND		10.0	1	05/30/2020 10:44	<a href="#">WG1481523</a>
Lithium	106		15.0	1	05/30/2020 10:44	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:44	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Cadmium	1.04		1.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:16	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc





## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:51	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	9.58		5.00	1	05/30/2020 10:47	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:47	<a href="#">WG1481523</a>
Cobalt	119		10.0	1	05/30/2020 10:47	<a href="#">WG1481523</a>
Lithium	132		15.0	1	05/30/2020 10:47	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:47	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Cadmium	2.25		1.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:20	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	0.476		0.200	1	05/27/2020 08:53	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	8.50		5.00	1	05/30/2020 10:50	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:50	<a href="#">WG1481523</a>
Cobalt	30.9		10.0	1	05/30/2020 10:50	<a href="#">WG1481523</a>
Lithium	197		15.0	1	05/30/2020 10:50	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:50	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Beryllium	2.11		2.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Cadmium	5.07		1.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Selenium	7.89		2.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:23	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:54	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	11.9		5.00	1	05/30/2020 10:53	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:53	<a href="#">WG1481523</a>
Cobalt	ND		10.0	1	05/30/2020 10:53	<a href="#">WG1481523</a>
Lithium	51.9		15.0	1	05/30/2020 10:53	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:53	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Arsenic	3.09		2.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:41	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:56	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	35.2		5.00	1	05/30/2020 10:56	<a href="#">WG1481523</a>
Chromium	ND		10.0	1	05/30/2020 10:56	<a href="#">WG1481523</a>
Cobalt	ND		10.0	1	05/30/2020 10:56	<a href="#">WG1481523</a>
Lithium	58.4		15.0	1	05/30/2020 10:56	<a href="#">WG1481523</a>
Molybdenum	ND		5.00	1	05/30/2020 10:56	<a href="#">WG1481523</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:44	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 15:25

L1221868

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 08:58	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	52.6		5.00	1	05/28/2020 11:32	<a href="#">WG1480612</a>
Chromium	ND		10.0	1	05/28/2020 11:32	<a href="#">WG1480612</a>
Cobalt	ND		10.0	1	05/28/2020 11:32	<a href="#">WG1480612</a>
Lithium	54.5		15.0	1	05/28/2020 11:32	<a href="#">WG1480612</a>
Molybdenum	ND		5.00	1	05/28/2020 11:32	<a href="#">WG1480612</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Arsenic	13.7		2.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:48	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 09:00	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	54.7		5.00	1	05/28/2020 15:31	<a href="#">WG1482049</a>
Chromium	ND		10.0	1	05/28/2020 15:31	<a href="#">WG1482049</a>
Cobalt	ND		10.0	1	05/28/2020 15:31	<a href="#">WG1482049</a>
Lithium	69.5		15.0	1	05/28/2020 15:31	<a href="#">WG1482049</a>
Molybdenum	ND		5.00	1	05/28/2020 15:31	<a href="#">WG1482049</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Arsenic	6.47		2.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:51	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 09:02	<a href="#">WG1481594</a>

1 Cp

2 Tc

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	30.4		5.00	1	05/28/2020 15:33	<a href="#">WG1482049</a>
Chromium	ND		10.0	1	05/28/2020 15:33	<a href="#">WG1482049</a>
Cobalt	10.3		10.0	1	05/28/2020 15:33	<a href="#">WG1482049</a>
Lithium	47.2		15.0	1	05/28/2020 15:33	<a href="#">WG1482049</a>
Molybdenum	ND		5.00	1	05/28/2020 15:33	<a href="#">WG1482049</a>

3 Ss

4 Cn

5 Sr

6 Qc

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Arsenic	12.4		2.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Selenium	ND		2.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:54	<a href="#">WG1480615</a>

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3532052-1 05/27/20 08:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3532052-4 05/27/20 10:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	2.70	90.1	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc





Method Blank (MB)

(MB) R3532782-1 05/28/20 10:11

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.895	5.00
Chromium	U		5.00	10.0
Cobalt	U		0.807	10.0
Lithium	U		5.74	15.0
Molybdenum	U		1.04	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS)

(LCS) R3532782-2 05/28/20 10:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1000	100	80.0-120	
Chromium	1000	983	98.3	80.0-120	
Cobalt	1000	990	99.0	80.0-120	
Lithium	1000	967	96.7	80.0-120	
Molybdenum	1000	998	99.8	80.0-120	

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Barium	U		0.895	5.00
Chromium	U		5.00	10.0
Cobalt	0.817	↓	0.807	10.0
Lithium	U		5.74	15.0
Molybdenum	U		1.04	5.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Barium	1000	985	98.5	80.0-120	
Chromium	1000	961	96.1	80.0-120	
Cobalt	1000	990	99.0	80.0-120	
Lithium	1000	954	95.4	80.0-120	
Molybdenum	1000	973	97.3	80.0-120	

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Barium	1000	9.72	986	986	97.6	97.6	1	75.0-125			0.0470	20
Chromium	1000	ND	949	942	94.9	94.2	1	75.0-125			0.767	20
Cobalt	1000	ND	1050	1040	104	104	1	75.0-125			0.296	20
Lithium	1000	202	1160	1150	95.4	94.5	1	75.0-125			0.753	20
Molybdenum	1000	ND	988	983	98.6	98.1	1	75.0-125			0.500	20

L1221868-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-01 05/30/20 09:48 • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Barium	1000	10.7	981	973	97.1	96.3	1	75.0-125			0.813	20
Chromium	1000	ND	939	942	93.9	94.2	1	75.0-125			0.368	20
Cobalt	1000	ND	1040	1030	104	103	1	75.0-125			0.908	20
Lithium	1000	205	1150	1140	94.0	93.6	1	75.0-125			0.376	20
Molybdenum	1000	ND	980	981	98.0	98.1	1	75.0-125			0.151	20



Method Blank (MB)

(MB) R3532811-1 05/28/20 15:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Barium	U		0.895	5.00
Chromium	U		5.00	10.0
Cobalt	U		0.807	10.0
Lithium	U		5.74	15.0
Molybdenum	U		1.04	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS)

(LCS) R3532811-2 05/28/20 15:11

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Barium	1000	973	97.3	80.0-120	
Chromium	1000	958	95.8	80.0-120	
Cobalt	1000	972	97.2	80.0-120	
Lithium	1000	949	94.9	80.0-120	
Molybdenum	1000	950	95.0	80.0-120	

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3531912-1 05/26/20 21:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.32	4.00
Arsenic	U		0.735	2.00
Beryllium	U		0.454	2.00
Cadmium	U		0.478	1.00
Lead	U		2.49	5.00
Selenium	U		0.657	2.00
Thallium	U		0.460	2.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3531912-2 05/26/20 22:02

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	53.6	107	80.0-120	
Arsenic	50.0	46.4	92.7	80.0-120	
Beryllium	50.0	53.3	107	80.0-120	
Cadmium	50.0	49.9	99.8	80.0-120	
Lead	50.0	46.7	93.4	80.0-120	
Selenium	50.0	47.5	95.0	80.0-120	
Thallium	50.0	48.6	97.2	80.0-120	

L1221868-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-05 05/26/20 22:06 • (MS) R3531912-4 05/26/20 22:13 • (MSD) R3531912-5 05/26/20 22:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	ND	54.5	52.8	109	106	1	75.0-125			3.01	20
Arsenic	50.0	ND	46.2	45.0	90.6	88.2	1	75.0-125			2.62	20
Beryllium	50.0	ND	50.1	51.6	97.3	100	1	75.0-125			2.94	20
Cadmium	50.0	3.52	54.8	54.8	103	103	1	75.0-125			0.0481	20
Lead	50.0	ND	46.8	46.6	93.5	93.2	1	75.0-125			0.383	20
Selenium	50.0	27.7	75.6	76.3	95.9	97.3	1	75.0-125			0.900	20
Thallium	50.0	ND	46.1	46.8	92.2	93.7	1	75.0-125			1.61	20



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

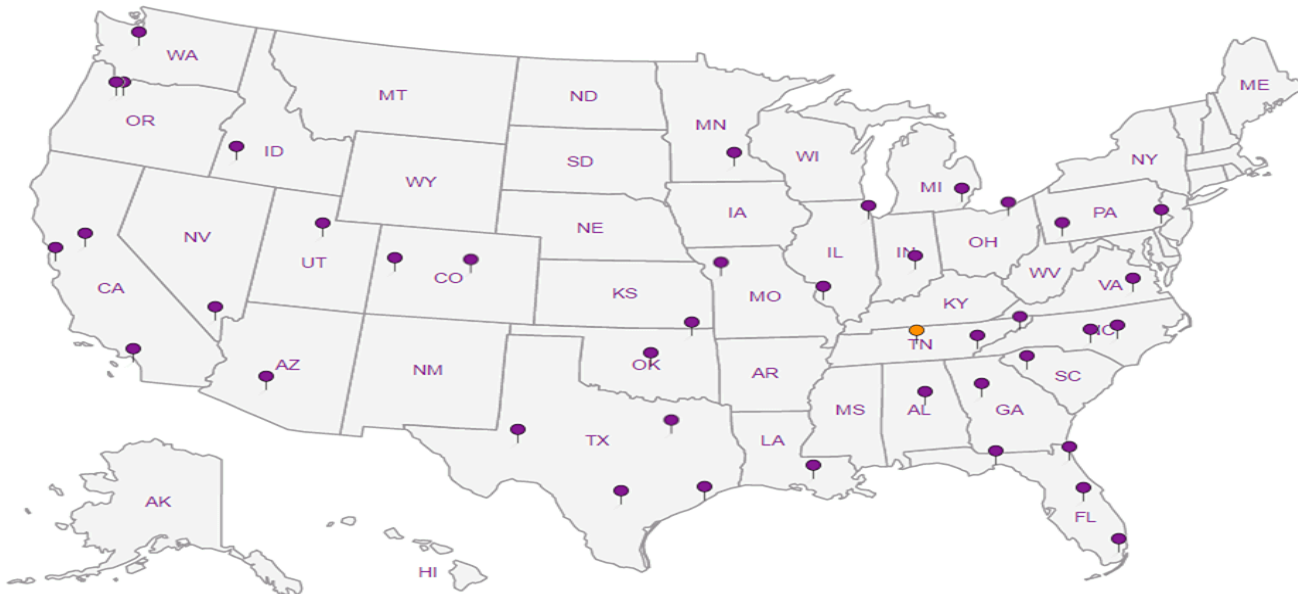
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
**Accounts Payable**  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative										
Li	Mo									

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd.  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.com

Project Description:  
**Evergy - Montrose Generating Station**

City/State  
Collected:

Please Circle:  
PT MT ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Quote #

Date Results Needed

*std*

Immediately Packed on Ice N \_\_\_ Y X

No. of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Li	Mo	6010	250m	HDPE	HNO3	Metals - CCR APP IV 250m	HDPE	HNO3	
506	Grab	GW		5-21-20	1435	1	X									
506 MS/MSD	Grab	GW			1445	1	X									
DUPLICATE	Grab	GW			1435	1	X									
601	Grab	GW			1225	1							X			
602		GW			1020	1							X			
603		GW			1205	1							X			
604		GW			1325	1							X			
605		GW			1410	1							X			
701		GW			1710	1							X			
702		GW			1625	1							X			

Li, Mo - 6010 250m HDPE-HNO3

Metals - CCR APP IV 250m HDPE-HNO3

SDG # *L1221868*  
Tab **G035**  
Acctnum: **AQUAOPKS**  
Template: **T166966**  
Prelogin: **P770363**  
PM: 206 - Jeff Carr  
PB:  
Shipped Via:  
Remarks: Sample# (lab only)

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: CCR AP IV 6010 Metals-Ba,Cr,Co,Li,Mo 6020 metals-Sb,As,Be,Cd,Pb,Se,Tl 7470 metals - Hg

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist		
COC Seal Present/Intact:	MP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VQA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)  
*[Signature]*

Date: *5/22/20*  
Time: *1300*

Received by: (Signature)  
*Alan Nelson* *5-22-20 1300*

Trip Blank Received: Yes / No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

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

Received by: (Signature)

Temp: *13°C*  
*2.4 ± 0.24* Bottles Received: *14*

If preservation required by Login: Date/Time

Relinquished by: (Signature)

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

Received for lab by: (Signature)  
*[Signature]*

Date: *5/23/20*  
Time: *845*

Hold: \_\_\_\_\_  
Condition: *NCF / OK*

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
Jason Franks

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
Evergy - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):  
Whit Martin

Rush? (Lab MUST Be Notified)  
\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Quote #

Date Results Needed  
Std

Immediately Packed on Ice N \_\_\_ Y

No. of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
703		GW		5/21/20	1505	1
704		GW		↓	1625	1
705		GW		↓	1300	1
706		GW		↓	1025	1

Li, Mo - 6010 250mIHDP-E-HNO3

Metals - CCR APP IV 250mIHDP-E-HNO3

SDG #

122868

Table #

Acctnum: AQUAOPKS

Template: T166966

Prelogin: P770363

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks

Sample # (lab only)

<10  
-11  
-12  
-13

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: CCR AP IV 6010 Metals-Ba,Cr,Co,Li,Mo 6020 metals-Sb,As,Be,Cd,Pb,Se,Tl 7470 metals - Hg

pH \_\_\_ Temp \_\_\_

Flow \_\_\_ Other \_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headpace:  Y  N  
Preservation Correct/Checked:  Y  N  
RAD Screen <0.5 mR/hr:  Y  N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)

Date: 5/22/20

Time: 1300

Received by: (Signature)

5-22-20 1300

Trip Blank Received: Yes / No  
HCL / Mech  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 17.3°C  
Bottles Received: 2.4±0.24

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 5/23/20 Time: 0845

Hold:

Condition:  
NCF / OK



## SCS Engineers - KS

Sample Delivery Group: L1221882  
Samples Received: 05/23/2020  
Project Number: 27213167.16  
Description: Evergy - Montrose Gen Station GW

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210




Entire Report Reviewed By:



Jason Romer  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
<b>Cn: Case Narrative</b>	<b>6</b>	
<b>Sr: Sample Results</b>	<b>7</b>	
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601 L1221882-02	8	
602 L1221882-03	9	
603 L1221882-04	10	
604 L1221882-05	11	
605 L1221882-06	12	
701 L1221882-07	13	
702 L1221882-08	14	
703 L1221882-09	15	
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<b>Qc: Quality Control Summary</b>	<b>20</b>	
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<b>Al: Accreditations &amp; Locations</b>	<b>24</b>	
<b>Sc: Sample Chain of Custody</b>	<b>25</b>	



## 506 L1221882-01 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493951	1	06/17/20 14:23	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493951	1	06/17/20 14:23	06/19/20 07:25	RGT	Mt. Juliet, TN

1  
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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

## 601 L1221882-02 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493951	1	06/17/20 14:23	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493951	1	06/17/20 14:23	06/19/20 07:25	RGT	Mt. Juliet, TN

## 602 L1221882-03 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:20

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493951	1	06/17/20 14:23	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493951	1	06/17/20 14:23	06/19/20 07:25	RGT	Mt. Juliet, TN

## 603 L1221882-04 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:05

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493951	1	06/17/20 14:23	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493951	1	06/17/20 14:23	06/19/20 07:25	RGT	Mt. Juliet, TN

## 604 L1221882-05 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 13:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/19/20 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 16:25	RGT	Mt. Juliet, TN

## 605 L1221882-06 Non-Potable Water

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:10

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/19/20 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 16:25	RGT	Mt. Juliet, TN

# SAMPLE SUMMARY



## 701 L1221882-07 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 17:10  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/19/20 14:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/19/20 16:25	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 16:25	RGT	Mt. Juliet, TN

1  
Cp

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

## 702 L1221882-08 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 17:25  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN

## 703 L1221882-09 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 15:15  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN

## 704 L1221882-10 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 15:25  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN

## 705 L1221882-11 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:00  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN

## 706 L1221882-12 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
05/21/20 10:25  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN



## DUPLICATE L1221882-13 Non-Potable Water

Collected by: Whit Martin  
 Collected date/time: 05/21/20 00:00  
 Received date/time: 05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1489466	1	06/12/20 09:13	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1493976	1	06/18/20 13:59	06/22/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1493976	1	06/18/20 13:59	06/19/20 20:50	RGT	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Collected date/time: 05/21/20 14:35

L1221882

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.902		0.568	0.857	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	107			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	97.7			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.21		0.797	1.09	06/19/2020 14:30	<a href="#">WG1493951</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.306		0.229	0.232	06/19/2020 07:25	<a href="#">WG1493951</a>
(T) Barium-133	102			30.0-143	06/19/2020 07:25	<a href="#">WG1493951</a>



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.114		0.578	0.947	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	110			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	111			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.618		0.865	1.12	06/19/2020 14:30	<a href="#">WG1493951</a>

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.618		0.287	0.175	06/19/2020 07:25	<a href="#">WG1493951</a>
(T) Barium-133	110			30.0-143	06/19/2020 07:25	<a href="#">WG1493951</a>

8 Al

9 Sc





## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.91		0.627	0.992	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	113			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	104			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.98		0.820	1.31	06/19/2020 14:30	<a href="#">WG1493951</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0693		0.193	0.316	06/19/2020 07:25	<a href="#">WG1493951</a>
(T) Barium-133	110			30.0-143	06/19/2020 07:25	<a href="#">WG1493951</a>

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.726		0.528	0.9	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	103			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	110			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.770		0.716	1.23	06/19/2020 14:30	<a href="#">WG1493951</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0441		0.188	0.332	06/19/2020 07:25	<a href="#">WG1493951</a>
(T) Barium-133	102			30.0-143	06/19/2020 07:25	<a href="#">WG1493951</a>

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.0617		0.596	1.06	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	86.1			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	102			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.255		0.883	1.44	06/19/2020 16:25	<a href="#">WG1493976</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.255		0.287	0.378	06/19/2020 16:25	<a href="#">WG1493976</a>
(T) Barium-133	57.9			30.0-143	06/19/2020 16:25	<a href="#">WG1493976</a>

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.931		0.563	0.826	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	107			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	114			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.05		0.747	1.11	06/19/2020 16:25	<a href="#">WG1493976</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.119		0.184	0.286	06/19/2020 16:25	<a href="#">WG1493976</a>
(T) Barium-133	83.8			30.0-143	06/19/2020 16:25	<a href="#">WG1493976</a>

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.176		0.532	0.803	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Barium	108			62.0-143	06/19/2020 14:30	<a href="#">WG1489466</a>
(T) Yttrium	105			79.0-136	06/19/2020 14:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.575		0.852	1.16	06/19/2020 16:25	<a href="#">WG1493976</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.399		0.320	0.356	06/19/2020 16:25	<a href="#">WG1493976</a>
(T) Barium-133	80.8			30.0-143	06/19/2020 16:25	<a href="#">WG1493976</a>

6 Qc

7 Gl

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.563		0.662	0.998	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	100			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	88.6			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.863		0.895	1.23	06/22/2020 09:30	<a href="#">WG1493976</a>

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.300		0.233	0.235	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	82.4			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.282		0.582	0.844	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	97.7			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	93.9			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.739		0.876	1.1	06/22/2020 09:30	<a href="#">WG1493976</a>

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.457		0.294	0.255	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	77.1			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>

8 Al

9 Sc



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.392		0.564	0.797	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	102			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	92.4			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.77		1.07	1.08	06/22/2020 09:30	<a href="#">WG1493976</a>

6 Qc

7 Gl

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.38		0.506	0.285	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	81.6			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>

8 Al

9 Sc





Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.490		0.696	1.16	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	105			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	89.9			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.945		1.08	1.36	06/22/2020 09:30	<a href="#">WG1493976</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.945		0.380	0.203	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	86.5			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>



## Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.21		0.640	1	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	107			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	92.2			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

1 Cp

2 Tc

3 Ss

## Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.58		0.941	1.37	06/22/2020 09:30	<a href="#">WG1493976</a>

4 Cn

5 Sr

## Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.372		0.301	0.365	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	86.5			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 00:00

L1221882

Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.248		0.676	1.19	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Barium	107			62.0-143	06/22/2020 09:30	<a href="#">WG1489466</a>
(T) Yttrium	94.1			79.0-136	06/22/2020 09:30	<a href="#">WG1489466</a>

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0950		0.912	1.58	06/22/2020 09:30	<a href="#">WG1493976</a>

<sup>4</sup>Cn

<sup>5</sup>Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0950		0.236	0.39	06/19/2020 20:50	<a href="#">WG1493976</a>
(T) Barium-133	85.0			30.0-143	06/19/2020 20:50	<a href="#">WG1493976</a>

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3541874-1 06/19/20 14:30

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	0.0628		0.440
(T) Barium	104		
(T) Yttrium	100		

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1221882-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221882-01 06/19/20 14:30 • (DUP) R3541874-5 06/19/20 14:30

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.902	-0.126	1	200	1.20		20	3
(T) Barium	107	104						
(T) Yttrium	97.7	99.1						

Laboratory Control Sample (LCS)

(LCS) R3541874-2 06/19/20 14:30

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.43	88.5	80.0-120	
(T) Barium			109		
(T) Yttrium			112		

L1221882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221882-01 06/19/20 14:30 • (MS) R3541874-3 06/19/20 14:30 • (MSD) R3541874-4 06/19/20 14:30

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.902	11.3	9.33	104	84.2	1	70.0-130			18.8		20
(T) Barium		107			110	103							
(T) Yttrium		97.7			101	109							



Method Blank (MB)

(MB) R3541403-1 06/18/20 17:45

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	-0.00599		0.0578
(T) Barium-133	83.6		

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS)

(LCS) R3541403-2 06/18/20 17:45

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	5.79	115	80.0-120	
(T) Barium-133			94.6		

5 Sr

6 Qc

L1221882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221882-01 06/19/20 07:25 • (MS) R3541403-5 06/18/20 17:45 • (MSD) R3541403-6 06/18/20 17:45

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.306	17.3	17.4	84.7	85.2	1	75.0-125			0.575		20
(T) Barium-133		102			92.1	94.4							

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3541479-1 06/19/20 16:25

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	0.0140		0.0579
(T) Barium-133	84.8		

1 Cp

2 Tc

3 Ss

4 Cn

L1221882-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221882-06 06/19/20 16:25 • (DUP) R3541479-5 06/19/20 16:25

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Radium-226	0.119	0.172	1	36.9	0.148		20	3
(T) Barium-133	83.8	68.2						

5 Sr

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3541479-2 06/19/20 16:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	5.85	117	80.0-120	
(T) Barium-133			78.7		

7 Gl

8 Al

9 Sc

L1221526-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221526-24 06/19/20 16:25 • (MS) R3541479-3 06/19/20 16:25 • (MSD) R3541479-4 06/19/20 16:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.459	17.5	18.3	84.9	88.8	1	75.0-125			4.36		20
(T) Barium-133		85.0			89.7	86.3							



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

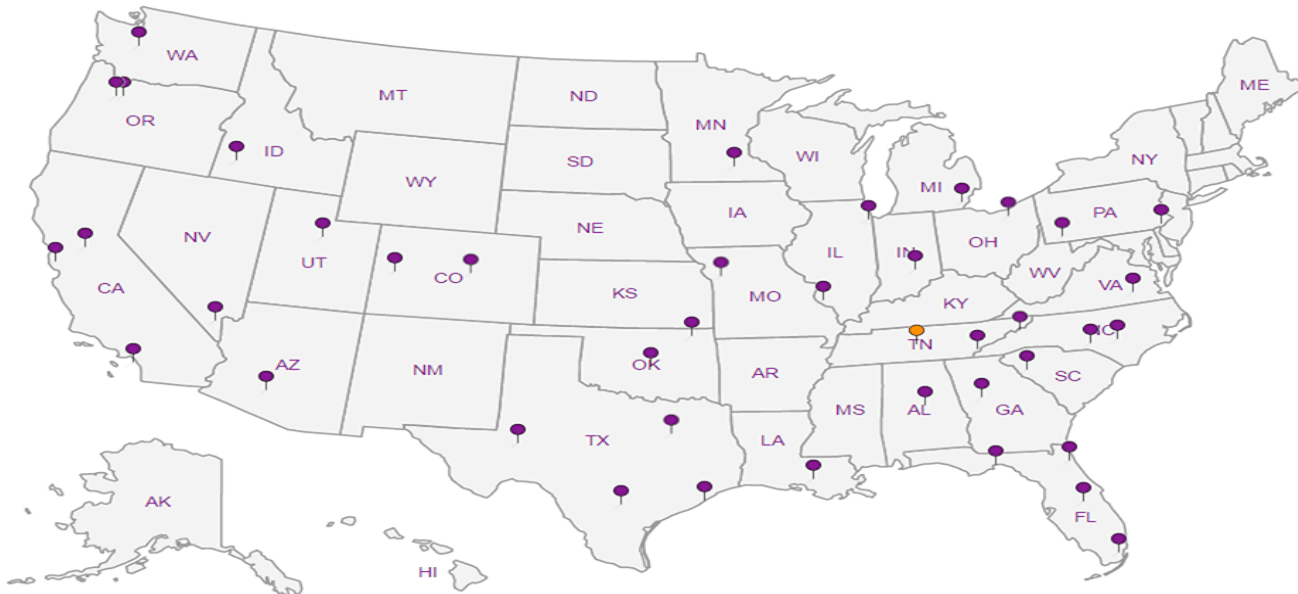
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
**Energy - Montrose Gen Station GW**

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213167.16**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Quote #

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed

*Std*

Nc.  
of  
Cnts

Immediately  
Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Nc. of Cnts
506	G	NPW		5-21-20	1435	4
601		NPW			1225	2
602		NPW			1620	2
603		NPW			1205	2
604		NPW			1325	2
605		NPW			1410	2
701		NPW			1710	2
702		NPW			1625	2
703		NPW			1505	2
704		NPW			1525	2

RA226, RA228 1L-HDPE-Add HNO3

SDG # *1221882*

**G036**

Template: **T115191**

Prelogin: **P769514**

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks | Sample # (lab only)

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: **RA 226/228 - Report separately and combined.**

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

*5-22-20 1300*

Trip Blank Received: Yes / No

HCL / MeqH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: *2.4 ± 0.2 = 2.4* °C  
Bottles Received: *28*

If preservation required by login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: *5/23/20* Time: *845*

Hold:

Condition:  
 NCF /  OK

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Report to:  
Jason Franks

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
Evergy - Montrose Gen Station GW

City/State  
Collected:

Please Circle:  
PT MT ET

Phone: 913-681-0030

Client Project #  
27213167.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

Rush? (Lab MUST Be Notified)

Quote #

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed  
Std

No.  
of  
Cntrs

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
705		NPW		5-21-20	1300	2
706		NPW			1025	2
<del>DUPLICATE</del>		<del>NPW</del>				<del>2</del>
<del>MS</del>		<del>NPW</del>				<del>2</del>
<del>MSD</del>		<del>NPW</del>				<del>2</del>

RA226, RA228 1L-HDPE-Add HNO3

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



SDG # 1221882

Table #

Acctnum: AQUAOPKS

Template: T115191

Prelogin: P769514

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks Sample # (lab only)

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other \_\_\_\_\_

Remarks: RA 226/228 - Report separately and combined.

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N  
RAD Screen <0.5 mR/hr:  Y  N

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

5-22-20  
1300

Trip Blank Received: Yes / No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp:  $2.4 \pm 0.2$  °C  
Bottles Received: 28

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

5/23/20 845

Hold:

Condition:  
NCF / OK

**Kelsey Stephenson**



<b>Login #:</b> L1221882	<b>Client:</b> AQUAOPKS	<b>Date:</b> 05/23	<b>Evaluated by:</b> Kelsey S
--------------------------	-------------------------	--------------------	-------------------------------

**Non-Conformance (check applicable items)**

<b>Sample Integrity</b>	<b>Chain of Custody Clarification</b>	<b>If Broken Container:</b>
Parameter(s) past holding time	x Login Clarification Needed	Insufficient packing material around container
Temperature not in range	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	Improper handling by carrier (FedEx / UPS / Courier)
pH not in range.	Please specify TCLP requested.	Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	<b>If no Chain of Custody:</b>
Vials received with headspace.	Trip Blank not received.	Received by:
Broken container	Client did not "X" analysis.	Date/Time:
Broken container:	Chain of Custody is missing	Temp./Cont. Rec./pH:
Sufficient sample remains		Carrier:
		Tracking#

**Login Comments: Received DUPLICATE which is crossed out on COC. Logged sample same as other analysis.**

<b>Client informed by:</b>	Call	Email	Voice Mail	Date: 5/27/20	Time: 11:30
<b>TSR Initials:</b> DE	Client Contact: Jason Franks				

**Login Instructions:**

Customer confirmed DUP is to be analyzed.

## SCS Engineers - KS

Sample Delivery Group: L1221866  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>2</sup>Tc</b>
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Sr: Sample Results</b>	<b>5</b>	<b><sup>3</sup>Ss</b>
<b>MW-506 L1221866-01</b>	<b>5</b>	
<b>DUPLICATE L1221866-02</b>	<b>6</b>	<b><sup>4</sup>Cn</b>
<b>Qc: Quality Control Summary</b>	<b>7</b>	<b><sup>5</sup>Sr</b>
<b>Gravimetric Analysis by Method 2540 C-2011</b>	<b>7</b>	
<b>Wet Chemistry by Method 9056A</b>	<b>8</b>	<b><sup>6</sup>Qc</b>
<b>Metals (ICP) by Method 6010B</b>	<b>10</b>	
<b>Gl: Glossary of Terms</b>	<b>11</b>	<b><sup>7</sup>Gl</b>
<b>Al: Accreditations &amp; Locations</b>	<b>12</b>	<b><sup>8</sup>Al</b>
<b>Sc: Sample Chain of Custody</b>	<b>13</b>	<b><sup>9</sup>Sc</b>

# SAMPLE SUMMARY



## MW-506 L1221866-01 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483379	1	05/28/20 17:57	05/28/20 23:20	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 21:44	05/28/20 21:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 21:57	05/28/20 21:57	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 09:37	EL	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

## DUPLICATE L1221866-02 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1483379	1	05/28/20 17:57	05/28/20 23:20	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 23:01	05/28/20 23:01	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 23:14	05/28/20 23:14	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:24	EL	Mt. Juliet, TN

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	<a href="#">WG1483379</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	69300		1000	1	05/28/2020 21:44	<a href="#">WG1482625</a>
Fluoride	ND		150	1	05/28/2020 21:44	<a href="#">WG1482625</a>
Sulfate	1780000		500000	100	05/28/2020 21:57	<a href="#">WG1482625</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 09:37	<a href="#">WG1481523</a>
Calcium	343000	<u>V</u>	1000	1	05/30/2020 09:37	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	<a href="#">WG1483379</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	69200		1000	1	05/28/2020 23:01	<a href="#">WG1482625</a>
Fluoride	ND		150	1	05/28/2020 23:01	<a href="#">WG1482625</a>
Sulfate	1710000		500000	100	05/28/2020 23:14	<a href="#">WG1482625</a>

3 Ss

4 Cn

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		200	1	05/30/2020 10:24	<a href="#">WG1481523</a>
Calcium	350000		1000	1	05/30/2020 10:24	<a href="#">WG1481523</a>

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533316-1 05/28/20 23:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	4000	↓	2820	10000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05/28/20 23:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	8250000	93.8	85.0-115	

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533046-3 05/28/20 16:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	8890		1	0.538		15
Fluoride	ND		1	0.000		15
Sulfate	8290		1	2.12		15

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	60400	60300	1	0.0502		15
Fluoride	956	953	1	0.367		15
Sulfate	222000	222000	1	0.0730	E	15

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	40100	100	80.0-120	
Fluoride	8000	8140	102	80.0-120	
Sulfate	40000	40600	102	80.0-120	



[L1221866-01,02](#)

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000		57300	57300	101	101	1	80.0-120			0.0750	15
Fluoride	5000		5230	5230	103	102	1	80.0-120			0.164	15
Sulfate	50000		53100	52800	101	100	1	80.0-120			0.587	15

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	69300	116000	116000	94.0	94.1	1	80.0-120	<u>E</u>	<u>E</u>	0.0372	15
Fluoride	5000	ND	4660	4690	91.5	92.1	1	80.0-120			0.687	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533429-1 05/30/20 09:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Boron	U		25.4	200
Calcium	U		389	1000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533429-2 05/30/20 09:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Boron	1000	947	94.7	80.0-120	
Calcium	10000	9760	97.6	80.0-120	

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/30/20 09:37 • (MS) R3533429-4 05/30/20 09:43 • (MSD) R3533429-5 05/30/20 09:45

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000	ND	1050	1050	97.4	96.6	1	75.0-125			0.766	20
Calcium	10000	343000	356000	354000	127	109	1	75.0-125	<u>V</u>		0.496	20

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3533429-6 05/30/20 09:51 • (MSD) R3533429-7 05/30/20 09:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Boron	1000		1060	1050	97.9	96.6	1	75.0-125			1.23	20
Calcium	10000		354000	353000	47.5	39.1	1	75.0-125	<u>V</u>	<u>V</u>	0.239	20



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
V	The sample concentration is too high to evaluate accurate spike recoveries.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

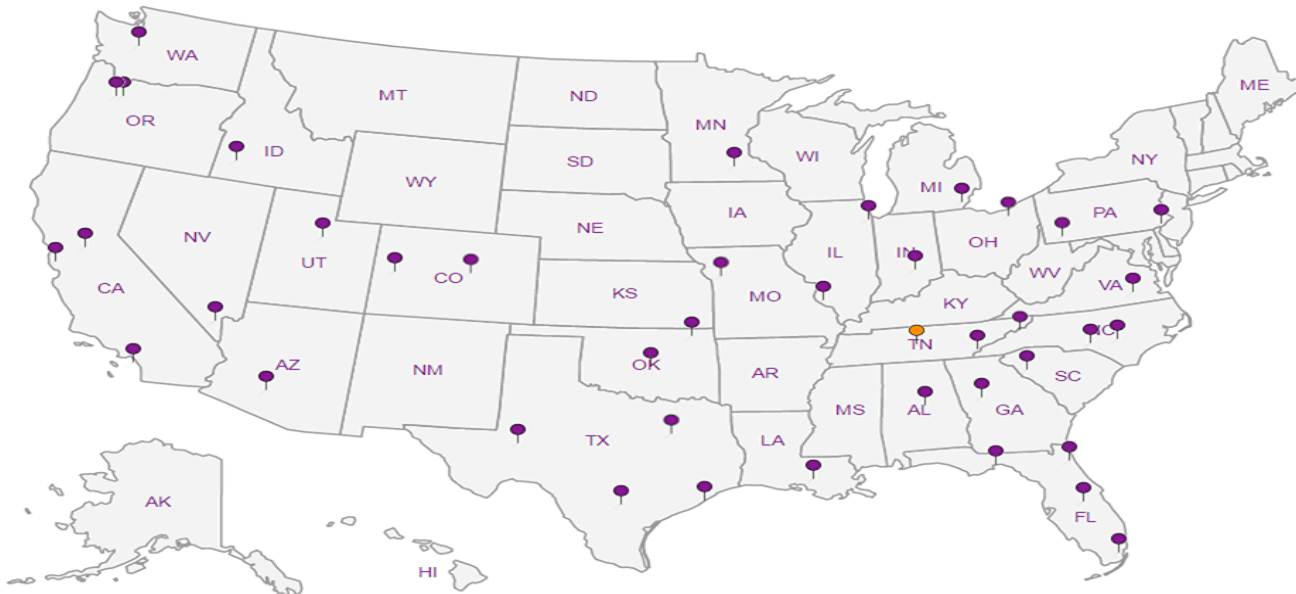
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

**SCS Engineers - KS**  
 8575 W. 110th Street  
 Overland Park, KS 66210

Billing Information:  
**Accounts Payable**  
 8575 W. 110th Street  
 Overland Park, KS 66210

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



Report to:  
**Jason Franks**

Email To:  
 jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
**Evergy - Montrose Generating Station**

City/State Collected:

Please Circle:  
 PT MT **CT** ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Immediately Packed on ice N \_\_\_ Y **X**

Date Results Needed  
**Std**

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Antions (Cl <sub>2</sub> , F, SO <sub>4</sub> )	125mIHDPPE-NoPres	B, Ca - 6010 250mIHDPPE-HNO3	TDS 250mIHDPPE-NoPres								
MW-506	G	GW		5-21-20	1435	3	X	X	X									
MW-506 MS/MSD	G	GW		5-21-20	1445	3	X	X	X									
DUPLICATE	G	GW		5-21-20	1435	3	X	X	X									

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



SDG # **U221866**  
 Tab **G034**  
 Acctnum: **AQUAOPKS**  
 Template: **T166717**  
 Prelogin: **P769451**  
 PM: 206 - Jeff Carr  
 Shipped Via:  
 Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_ Temp \_\_\_  
 Flow \_\_\_ Other \_\_\_  
 Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier  
 Tracking #

Sample Receipt Checklist  
 COC Seal Present/intact: \_\_\_ NP \_\_\_ Y \_\_\_ N  
 COC Signed/Accurate: \_\_\_ Y \_\_\_ N  
 Bottles arrive intact: \_\_\_ Y \_\_\_ N  
 Correct bottles used: \_\_\_ Y \_\_\_ N  
 Sufficient volume sent: \_\_\_ Y \_\_\_ N  
 If Applicable  
 VOA Zero Headspace: \_\_\_ Y \_\_\_ N  
 Preservation Correct/Checked: \_\_\_ Y \_\_\_ N  
 RAD Screen <0.5 mR/hr: \_\_\_ Y \_\_\_ N

Relinquished by: (Signature)  
*BR*

Date: **5/22/20**

Time: **1300**

Received by: (Signature) **Alan Nelson**

Trip Blank Received: Yes (No) HCL/MeOH TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **13.3 °C** Bottles Received: **9**  
**2.4 to 2.4**

If preservation required by LogIn: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature) *Handwritten*

Date: **5/23/20** Time: **845**

Hold: Condition: **NCF / OK**



## SCS Engineers - KS

Sample Delivery Group: L1221863  
Samples Received: 05/23/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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<b>Sr: Sample Results</b>	<b>7</b>	<b>3</b> Ss
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503 L1221863-03	11	<b>5</b> Sr
504 L1221863-04	13	
505 L1221863-05	15	<b>6</b> Qc
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508 L1221863-07	19	<b>7</b> Gl
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# SAMPLE SUMMARY



## 501 L1221863-01 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 11:30  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:11	05/29/20 14:11	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483770	1	05/29/20 11:23	05/29/20 15:05	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 13:55	05/30/20 13:55	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 17:14	05/28/20 17:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	20	05/28/20 17:53	05/28/20 17:53	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 12:25	05/29/20 12:25	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 10:53	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:11	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 22:18	JPD	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

## 502 L1221863-02 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 16:05  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:14	05/29/20 14:14	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483770	1	05/29/20 11:23	05/29/20 15:06	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 14:15	05/30/20 14:15	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 18:19	05/28/20 18:19	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	50	05/28/20 18:32	05/28/20 18:32	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 12:46	05/29/20 12:46	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 10:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:14	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 22:22	JPD	Mt. Juliet, TN

7  
Gl

8  
Al

9  
Sc

## 503 L1221863-03 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 13:40  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:17	05/29/20 14:17	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483770	1	05/29/20 11:23	05/29/20 15:06	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 16:16	05/30/20 16:16	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 18:44	05/28/20 18:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 18:57	05/28/20 18:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 14:35	05/29/20 14:35	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 10:57	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:17	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 22:25	JPD	Mt. Juliet, TN

## 504 L1221863-04 GW

Collected by  
Whit Martin  
Collected date/time  
05/21/20 12:50  
Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:20	05/29/20 14:20	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:22	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 16:36	05/30/20 16:36	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 19:10	05/28/20 19:10	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 19:23	05/28/20 19:23	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 15:45	05/29/20 15:45	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 10:59	ABL	Mt. Juliet, TN

# SAMPLE SUMMARY



## 504 L1221863-04 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 12:50

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:20	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 22:29	JPD	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

## 505 L1221863-05 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:05

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:23	05/29/20 14:23	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:22	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 16:57	05/30/20 16:57	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 19:36	05/28/20 19:36	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 19:49	05/28/20 19:49	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 16:10	05/29/20 16:10	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 11:01	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:23	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 20:23	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	10	05/28/20 18:16	05/29/20 21:58	JPD	Mt. Juliet, TN

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## 507 L1221863-06 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 11:40

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:31	05/29/20 14:31	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:22	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 17:19	05/30/20 17:19	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 20:27	05/28/20 20:27	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 20:40	05/28/20 20:40	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 16:26	05/29/20 16:26	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 11:03	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:31	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 20:26	JPD	Mt. Juliet, TN

## 508 L1221863-07 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 10:25

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:34	05/29/20 14:34	TRB	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:22	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 17:40	05/30/20 17:40	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 20:53	05/28/20 20:53	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 21:06	05/28/20 21:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 16:39	05/29/20 16:39	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 11:04	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:34	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 20:30	JPD	Mt. Juliet, TN

# SAMPLE SUMMARY



## 509 L1221863-08 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 17:55

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:37	05/29/20 14:37	EL	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG1483373	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:23	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	06/02/20 14:06	06/02/20 14:06	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 21:18	05/28/20 21:18	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 21:31	05/28/20 21:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 17:00	05/29/20 17:00	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 11:06	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:37	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	5	05/29/20 10:00	05/30/20 11:28	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 20:33	JPD	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

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Cn

5  
Sr

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Qc

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Gl

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Al

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Sc

## 506 L1221863-09 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 13:42	05/29/20 13:42	JDG	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:23	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	06/02/20 14:28	06/02/20 14:28	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 18:46	05/29/20 18:46	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 10:35	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 13:42	JDG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1481532	1	05/28/20 18:16	05/29/20 21:19	JPD	Mt. Juliet, TN

## DUPLICATE L1221863-10 GW

Collected by  
Whit Martin

Collected date/time  
05/21/20 14:35

Received date/time  
05/23/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1481522	1	05/29/20 14:40	05/29/20 14:40	JDG	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:24	SL	Mt. Juliet, TN
Wet Chemistry by Method 9020B	WG1484340	1	06/02/20 14:48	06/02/20 14:48	VRP	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG1482709	1	05/29/20 20:10	05/29/20 20:10	VRP	Mt. Juliet, TN
Mercury by Method 7470A	WG1481597	1	05/26/20 18:16	05/27/20 11:08	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:40	JDG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 23:06	LD	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

### Report Revision History

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Level II Report - Version 1: 06/03/20 15:35

### Project Narrative

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This report has been revised. The Fluoride results are being reported from the undiluted run for sample L1221863-08 as opposed to the 100X run which was diluted for Sulfate.



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1430000		2500	1	05/29/2020 14:11	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2430000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:05	<a href="#">WG1483770</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 13:55	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	7890		1000	1	05/28/2020 17:14	<a href="#">WG1482625</a>
Fluoride	188		150	1	05/28/2020 17:14	<a href="#">WG1482625</a>
Sulfate	1580000		100000	20	05/28/2020 17:53	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1310	B	1000	1	05/29/2020 12:25	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 10:53	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	ND		200	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Barium	16.2		5.00	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Boron	5320		200	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Calcium	405000		1000	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Iron	147		100	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Magnesium	103000		1000	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Manganese	188		10.0	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Nickel	49.6		10.0	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:11	<a href="#">WG1481522</a>
Sodium	130000		3000	1	05/29/2020 14:11	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 11:30

L1221863

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Cadmium	ND		1.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Copper	7.51		5.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Selenium	ND		2.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 22:18	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 22:18	<a href="#">WG1481532</a>

- 1  
Cp
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Tc
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Ss
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Cn
- 5  
Sr
- 6  
Qc
- 7  
Gl
- 8  
Al
- 9  
Sc





## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1300000		2500	1	05/29/2020 14:14	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2230000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:06	<a href="#">WG1483770</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 14:15	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	21900		1000	1	05/28/2020 18:19	<a href="#">WG1482625</a>
Fluoride	331		150	1	05/28/2020 18:19	<a href="#">WG1482625</a>
Sulfate	1380000		250000	50	05/28/2020 18:32	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	3370		1000	1	05/29/2020 12:46	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 10:55	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	ND		200	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Barium	30.5		5.00	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Boron	2430		200	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Calcium	382000		1000	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Iron	17100		100	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Magnesium	85000		1000	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Manganese	2720		10.0	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Nickel	ND		10.0	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:14	<a href="#">WG1481522</a>
Sodium	151000		3000	1	05/29/2020 14:14	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 16:05

L1221863

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Arsenic	14.1		2.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Cadmium	ND		1.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Copper	ND		5.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Selenium	ND		2.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 22:22	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 22:22	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1650000		2500	1	05/29/2020 14:17	<a href="#">WG1481522</a>

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	3180000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:06	<a href="#">WG1483770</a>

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 16:16	<a href="#">WG1484340</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	38200		1000	1	05/28/2020 18:44	<a href="#">WG1482625</a>
Fluoride	265		150	1	05/28/2020 18:44	<a href="#">WG1482625</a>
Sulfate	2170000		500000	100	05/28/2020 18:57	<a href="#">WG1482625</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1340	<b>B</b>	1000	1	05/29/2020 14:35	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 10:57	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	5190		200	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Barium	28.7		5.00	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Boron	ND		200	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Calcium	446000		1000	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Iron	2670		100	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Magnesium	131000		1000	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Manganese	212		10.0	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Nickel	ND		10.0	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:17	<a href="#">WG1481522</a>
Sodium	286000		3000	1	05/29/2020 14:17	<a href="#">WG1481522</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 05/21/20 13:40

L1221863

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Cadmium	ND		1.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Copper	ND		5.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Selenium	2.59		2.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 22:25	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 22:25	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1270000		2500	1	05/29/2020 14:20	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2410000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:22	<a href="#">WG1483771</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 16:36	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	9030		1000	1	05/28/2020 19:10	<a href="#">WG1482625</a>
Fluoride	361		150	1	05/28/2020 19:10	<a href="#">WG1482625</a>
Sulfate	1620000		500000	100	05/28/2020 19:23	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1320	B	1000	1	05/29/2020 15:45	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 10:59	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	296		200	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Barium	14.0		5.00	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Boron	4140		200	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Calcium	357000		1000	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Iron	547		100	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Magnesium	92000		1000	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Manganese	1020		10.0	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Nickel	25.5		10.0	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:20	<a href="#">WG1481522</a>
Sodium	199000		3000	1	05/29/2020 14:20	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 12:50

L1221863

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Cadmium	1.06		1.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Copper	ND		5.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Selenium	ND		2.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 22:29	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 22:29	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1300000		2500	1	05/29/2020 14:23	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2030000		25000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	45000		20000	1	05/29/2020 15:22	<a href="#">WG1483771</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 16:57	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	8850		1000	1	05/28/2020 19:36	<a href="#">WG1482625</a>
Fluoride	249		150	1	05/28/2020 19:36	<a href="#">WG1482625</a>
Sulfate	1340000		500000	100	05/28/2020 19:49	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	5510		1000	1	05/29/2020 16:10	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 11:01	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	1410		200	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Barium	61.7		5.00	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Boron	5860		200	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Calcium	474000		1000	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Iron	344000		100	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Magnesium	27300		1000	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Manganese	257		10.0	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Nickel	31.1		10.0	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:23	<a href="#">WG1481522</a>
Sodium	92200		3000	1	05/29/2020 14:23	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 14:05

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Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	5.73		4.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Arsenic	ND		20.0	10	05/29/2020 21:58	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Cadmium	16.4		1.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Copper	ND		50.0	10	05/29/2020 21:58	<a href="#">WG1481532</a>
Lead	6.24		5.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Selenium	17.3		2.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 20:23	<a href="#">WG1481532</a>
Zinc	563		250	10	05/29/2020 21:58	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	2080000		2500	1	05/29/2020 14:31	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	3610000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:22	<a href="#">WG1483771</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 17:19	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	3860		1000	1	05/28/2020 20:27	<a href="#">WG1482625</a>
Fluoride	484		150	1	05/28/2020 20:27	<a href="#">WG1482625</a>
Sulfate	2340000		500000	100	05/28/2020 20:40	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1310	B	1000	1	05/29/2020 16:26	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 11:03	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	1050		200	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Barium	14.9		5.00	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Boron	272		200	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Calcium	593000		1000	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Cobalt	15.1		10.0	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Iron	2900		100	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Magnesium	146000		1000	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Manganese	3010		10.0	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Nickel	14.5		10.0	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:31	<a href="#">WG1481522</a>
Sodium	249000		3000	1	05/29/2020 14:31	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 11:40

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Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Cadmium	3.02		1.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Copper	7.02		5.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Selenium	ND		2.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 20:26	<a href="#">WG1481532</a>
Zinc	49.3		25.0	1	05/29/2020 20:26	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1200000		2500	1	05/29/2020 14:34	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2240000		25000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:22	<a href="#">WG1483771</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	05/30/2020 17:40	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	11700		1000	1	05/28/2020 20:53	<a href="#">WG1482625</a>
Fluoride	ND		150	1	05/28/2020 20:53	<a href="#">WG1482625</a>
Sulfate	1500000		500000	100	05/28/2020 21:06	<a href="#">WG1482625</a>

9 Sc

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1140	B	1000	1	05/29/2020 16:39	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 11:04	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	275		200	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Barium	21.6		5.00	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Boron	407		200	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Calcium	346000		1000	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Iron	725		100	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Magnesium	82000		1000	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Manganese	335		10.0	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Nickel	ND		10.0	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:34	<a href="#">WG1481522</a>
Sodium	192000		3000	1	05/29/2020 14:34	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 10:25

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Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Cadmium	ND		1.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Copper	7.87		5.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Selenium	ND		2.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 20:30	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 20:30	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1580000		2500	1	05/29/2020 14:37	<a href="#">WG1481522</a>

1 Cp

2 Tc

## Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	4220000		50000	1	05/28/2020 22:31	<a href="#">WG1483373</a>

3 Ss

4 Cn

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	167000		20000	1	05/29/2020 15:23	<a href="#">WG1483771</a>

5 Sr

6 Qc

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND	P1	100	1	06/02/2020 14:06	<a href="#">WG1484340</a>

7 Gl

8 Al

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	40100		1000	1	05/28/2020 21:18	<a href="#">WG1482625</a>
Fluoride	360		150	1	05/28/2020 21:18	<a href="#">WG1482625</a>
Sulfate	2790000		500000	100	05/28/2020 21:31	<a href="#">WG1482625</a>

9 Sc

## Sample Narrative:

L1221863-08 WG1482625: Flouride at a dilution due to matrix interference

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	8680		1000	1	05/29/2020 17:00	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 11:06	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	8510		200	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Barium	137		5.00	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Boron	8310		200	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Calcium	499000		1000	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Chromium	23.0		10.0	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Cobalt	287		10.0	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Iron	413000		100	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Magnesium	81400		1000	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Manganese	62900		50.0	5	05/30/2020 11:28	<a href="#">WG1481522</a>
Nickel	172		10.0	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:37	<a href="#">WG1481522</a>
Sodium	210000		3000	1	05/29/2020 14:37	<a href="#">WG1481522</a>



Collected date/time: 05/21/20 17:55

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Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Arsenic	17.3		2.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Cadmium	4.75		1.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Copper	13.1		5.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Lead	7.97		5.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Selenium	2.15		2.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 20:33	<a href="#">WG1481532</a>
Zinc	81.3		25.0	1	05/29/2020 20:33	<a href="#">WG1481532</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



## Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1320000		2500	1	05/29/2020 13:42	<a href="#">WG1481522</a>

## Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:23	<a href="#">WG1483771</a>

## Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND	<u>J5 P1</u>	100	1	06/02/2020 14:28	<a href="#">WG1484340</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1350	<u>B</u>	1000	1	05/29/2020 18:46	<a href="#">WG1482709</a>

## Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 10:35	<a href="#">WG1481597</a>

## Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	325		200	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Barium	10.1		5.00	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Iron	299		100	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Magnesium	112000		1000	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Manganese	152		10.0	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Nickel	95.6		10.0	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 13:42	<a href="#">WG1481522</a>
Sodium	282000	<u>V</u>	3000	1	05/29/2020 13:42	<a href="#">WG1481522</a>

## Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Arsenic	ND		2.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Beryllium	ND		2.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Cadmium	ND		1.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Copper	ND		5.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Lead	ND		5.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Selenium	6.70		2.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Thallium	ND		2.00	1	05/29/2020 21:19	<a href="#">WG1481532</a>
Zinc	ND		25.0	1	05/29/2020 21:19	<a href="#">WG1481532</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hardness (calculated) as CaCO3	1330000		2500	1	05/29/2020 14:40	<a href="#">WG1481522</a>

1 Cp

2 Tc

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20000	1	05/29/2020 15:24	<a href="#">WG1483771</a>

3 Ss

4 Cn

Wet Chemistry by Method 9020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOX	ND		100	1	06/02/2020 14:48	<a href="#">WG1484340</a>

5 Sr

6 Qc

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	1480	B	1000	1	05/29/2020 20:10	<a href="#">WG1482709</a>

7 Gl

8 Al

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	05/27/2020 11:08	<a href="#">WG1481597</a>

9 Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	524		200	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Barium	10.1		5.00	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Chromium	ND		10.0	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Cobalt	ND		10.0	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Iron	488		100	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Magnesium	114000		1000	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Manganese	155		10.0	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Nickel	92.9		10.0	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Silver	ND		5.00	1	05/29/2020 14:40	<a href="#">WG1481522</a>
Sodium	285000		3000	1	05/29/2020 14:40	<a href="#">WG1481522</a>

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Arsenic	ND		2.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Beryllium	ND		2.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Cadmium	ND		1.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Copper	ND		5.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Lead	ND		5.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Selenium	5.80		2.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Thallium	ND		2.00	1	05/26/2020 23:06	<a href="#">WG1480615</a>
Zinc	ND		25.0	1	05/26/2020 23:06	<a href="#">WG1480615</a>





Method Blank (MB)

(MB) R3533287-1 05/28/20 22:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dissolved Solids	U		2820	10000

1 Cp

2 Tc

3 Ss

L1221865-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1221865-11 05/28/20 22:31 • (DUP) R3533287-3 05/28/20 22:31

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1800000	1790000	1	0.279		5

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05/28/20 22:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800000	7940000	90.2	85.0-115	

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533126-1 05/29/20 15:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
COD	U		11700	20000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221769-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221769-01 05/29/20 15:04 • (DUP) R3533126-3 05/29/20 15:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	859000	858000	1	0.107		20

L1221863-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-03 05/29/20 15:06 • (DUP) R3533126-6 05/29/20 15:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3533126-2 05/29/20 15:01

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
COD	222000	228000	103	90.0-110	

L1221863-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-01 05/29/20 15:05 • (MS) R3533126-4 05/29/20 15:05 • (MSD) R3533126-5 05/29/20 15:05

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
COD	400000	ND	403000	406000	101	101	1	80.0-120			0.668	20



Method Blank (MB)

(MB) R3533140-1 05/29/20 15:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
COD	U		11700	20000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1221947-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221947-01 05/29/20 15:24 • (DUP) R3533140-5 05/29/20 15:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	25300	26100	1	2.86		20

L1222117-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222117-01 05/29/20 15:27 • (DUP) R3533140-6 05/29/20 15:27

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	27800	28600	1	3.02		20

Laboratory Control Sample (LCS)

(LCS) R3533140-2 05/29/20 15:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
COD	222000	233000	105	90.0-110	

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 15:23 • (MS) R3533140-3 05/29/20 15:23 • (MSD) R3533140-4 05/29/20 15:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
COD	400000	ND	415000	417000	104	104	1	80.0-120			0.500	20



Method Blank (MB)

(MB) R3533315-2 05/29/20 15:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOX	U		27.7	100

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1221843-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221843-01 05/29/20 21:22 • (DUP) R3533315-3 05/29/20 21:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	200	P1	20

L1221847-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221847-03 05/29/20 21:43 • (DUP) R3533315-4 05/29/20 21:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20

L1221847-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221847-06 05/30/20 12:53 • (DUP) R3533997-3 05/30/20 13:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20

L1221851-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221851-02 05/30/20 13:14 • (DUP) R3533997-4 05/30/20 13:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20



L1221853-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221853-02 05/30/20 13:34 • (DUP) R3533997-5 05/30/20 13:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

L1221863-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-01 05/30/20 13:55 • (DUP) R3533997-6 05/30/20 14:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

L1221863-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-02 05/30/20 14:15 • (DUP) R3533997-7 05/30/20 14:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221863-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-03 05/30/20 16:16 • (DUP) R3533997-8 05/30/20 16:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

L1221863-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-04 05/30/20 16:36 • (DUP) R3533997-9 05/30/20 16:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20



L1221863-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-05 05/30/20 16:57 • (DUP) R3533997-10 05/30/20 17:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	10.1		20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1221863-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-06 05/30/20 17:19 • (DUP) R3533997-11 05/30/20 17:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1221863-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-07 05/30/20 17:40 • (DUP) R3533997-12 05/30/20 17:50

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	0.000		20

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1221863-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-08 06/02/20 14:06 • (DUP) R3534293-3 06/02/20 14:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	50.1	P1	20

L1221863-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-09 06/02/20 14:28 • (DUP) R3534293-4 06/02/20 14:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ug/l	ug/l	%			
TOX	ND	ND	1	200	P1	20



L1221863-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-10 06/02/20 14:48 • (DUP) R3534293-5 06/02/20 14:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1222370-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222370-01 06/02/20 16:08 • (DUP) R3534293-8 06/02/20 17:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	202	124	1	47.7	P1	20

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1222374-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-01 06/02/20 16:20 • (DUP) R3534293-9 06/02/20 17:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1222374-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-02 06/02/20 16:30 • (DUP) R3534293-10 06/02/20 17:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOX	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3533315-1 05/29/20 14:36

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOX	200	184	91.8	85.0-115	



L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 06/02/20 14:28 • (MS) R3534293-6 06/02/20 15:17 • (MSD) R3534293-7 06/02/20 15:29

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits
TOX	200	ND	245	234	123	117	1	80.0-120	<u>J5</u>		4.71	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





Method Blank (MB)

(MB) R3533046-1 05/28/20 14:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221627-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221627-10 05/28/20 15:58 • (DUP) R3533046-3 05/28/20 16:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	8940	8890	1	0.538		15
Fluoride	ND	ND	1	0.000		15
Sulfate	8470	8290	1	2.12		15

L1221878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Chloride	60400	60300	1	0.0502		15
Fluoride	956	953	1	0.367		15
Sulfate	222000	222000	1	0.0730	E	15

Laboratory Control Sample (LCS)

(LCS) R3533046-2 05/28/20 15:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Chloride	40000	40100	100	80.0-120	
Fluoride	8000	8140	102	80.0-120	
Sulfate	40000	40600	102	80.0-120	



L1221627-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221627-11 05/28/20 16:23 • (MS) R3533046-4 05/28/20 16:36 • (MSD) R3533046-5 05/28/20 16:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	6980	57300	57300	101	101	1	80.0-120			0.0750	15
Fluoride	5000	ND	5230	5230	103	102	1	80.0-120			0.164	15
Sulfate	50000	ND	53100	52800	101	100	1	80.0-120			0.587	15

L1221866-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221866-01 05/28/20 21:44 • (MS) R3533046-6 05/28/20 22:10 • (MSD) R3533046-7 05/28/20 22:22

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	69300	116000	116000	94.0	94.1	1	80.0-120	<u>E</u>	<u>E</u>	0.0372	15
Fluoride	5000	ND	4660	4690	91.5	92.1	1	80.0-120			0.687	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533362-1 05/29/20 09:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	218	↓	102	1000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1221841-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221841-01 05/29/20 11:46 • (DUP) R3533362-3 05/29/20 12:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	3830	3860	1	0.833		20

L1221863-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-08 05/29/20 17:00 • (DUP) R3533362-6 05/29/20 17:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	8680	8640	1	0.439		20

Laboratory Control Sample (LCS)

(LCS) R3533362-2 05/29/20 10:24

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	75000	75300	100	85.0-115	

L1221863-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-03 05/29/20 14:35 • (MS) R3533362-4 05/29/20 15:00 • (MSD) R3533362-5 05/29/20 15:30

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1340	53000	51900	103	101	1	80.0-120			1.98	20

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 18:46 • (MS) R3533362-7 05/29/20 19:10 • (MSD) R3533362-8 05/29/20 19:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	50000	1350	52000	53900	101	105	1	80.0-120			3.59	20



Method Blank (MB)

(MB) R3532112-1 05/27/20 10:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R3532112-2 05/27/20 10:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.20	107	80.0-120	

6 Qc

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/27/20 10:35 • (MS) R3532112-3 05/27/20 10:37 • (MSD) R3532112-4 05/27/20 10:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	2.84	2.90	94.6	96.8	1	75.0-125			2.26	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3533275-1 05/29/20 13:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aluminum	U		70.4	200
Barium	U		0.895	5.00
Boron	U		25.4	200
Calcium	U		389	1000
Chromium	U		5.00	10.0
Cobalt	U		0.807	10.0
Iron	U		45.8	100
Magnesium	U		111	1000
Manganese	U		3.27	10.0
Nickel	U		2.98	10.0
Silver	U		1.91	5.00
Sodium	U		1400	3000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05/29/20 13:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum	10000	10900	109	80.0-120	
Barium	1000	1040	104	80.0-120	
Boron	1000	1040	104	80.0-120	
Calcium	10000	10500	105	80.0-120	
Chromium	1000	1020	102	80.0-120	
Cobalt	1000	1050	105	80.0-120	
Iron	10000	10400	104	80.0-120	
Magnesium	10000	10900	109	80.0-120	
Manganese	1000	1010	101	80.0-120	
Nickel	1000	1060	106	80.0-120	
Silver	200	187	93.5	80.0-120	
Sodium	10000	10700	107	80.0-120	

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 13:42 • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10000	325	10600	10500	103	102	1	75.0-125			1.13	20
Barium	1000	10.1	974	971	96.4	96.1	1	75.0-125			0.362	20
Boron	1000	ND	1090	1070	99.9	98.1	1	75.0-125			1.68	20



L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 13:42 • (MS) R3533275-4 05/29/20 13:37 • (MSD) R3533275-5 05/29/20 13:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	10000	343000	347000	345000	49.5	27.5	1	75.0-125	√	√	0.637	20
Chromium	1000	ND	948	945	94.8	94.5	1	75.0-125			0.254	20
Cobalt	1000	ND	1020	1020	102	102	1	75.0-125			0.109	20
Iron	10000	299	10200	10100	98.8	97.6	1	75.0-125			1.11	20
Magnesium	10000	112000	120000	120000	76.5	76.2	1	75.0-125			0.0291	20
Manganese	1000	152	1090	1090	93.5	93.4	1	75.0-125			0.0565	20
Nickel	1000	95.6	1100	1090	100	99.8	1	75.0-125			0.282	20
Silver	200	ND	184	183	92.2	91.5	1	75.0-125			0.722	20
Sodium	10000	282000	288000	286000	55.8	36.0	1	75.0-125	√	√	0.690	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1221848-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221848-12 05/29/20 13:31 • (MS) R3533275-6 05/29/20 13:45 • (MSD) R3533275-7 05/29/20 13:47

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10000	921	11100	11200	102	102	1	75.0-125			0.219	20
Barium	1000	56.4	1040	1020	97.9	96.3	1	75.0-125			1.52	20
Boron	1000	ND	1060	1050	99.3	99.0	1	75.0-125			0.321	20
Calcium	10000	79700	88500	88800	88.6	90.8	1	75.0-125			0.241	20
Chromium	1000	ND	963	950	96.3	95.0	1	75.0-125			1.35	20
Cobalt	1000	ND	1010	992	101	99.2	1	75.0-125			1.83	20
Iron	10000	17900	29100	28900	112	110	1	75.0-125			0.709	20
Magnesium	10000	23800	33200	33200	93.6	93.4	1	75.0-125			0.0519	20
Manganese	1000	182	1130	1110	94.3	93.1	1	75.0-125			1.05	20
Nickel	1000	ND	995	977	99.5	97.7	1	75.0-125			1.83	20
Silver	200	ND	180	179	90.2	89.6	1	75.0-125			0.605	20
Sodium	10000	49000	56900	57400	78.9	84.0	1	75.0-125			0.884	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3531912-1 05/26/20 21:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.32	4.00
Arsenic	U		0.735	2.00
Beryllium	U		0.454	2.00
Cadmium	U		0.478	1.00
Copper	U		2.50	5.00
Lead	U		2.49	5.00
Selenium	U		0.657	2.00
Thallium	U		0.460	2.00
Zinc	U		9.96	25.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Laboratory Control Sample (LCS)

(LCS) R3531912-2 05/26/20 22:02

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	53.6	107	80.0-120	
Arsenic	50.0	46.4	92.7	80.0-120	
Beryllium	50.0	53.3	107	80.0-120	
Cadmium	50.0	49.9	99.8	80.0-120	
Copper	50.0	48.3	96.6	80.0-120	
Lead	50.0	46.7	93.4	80.0-120	
Selenium	50.0	47.5	95.0	80.0-120	
Thallium	50.0	48.6	97.2	80.0-120	
Zinc	500	467	93.5	80.0-120	

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1221868-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221868-05 05/26/20 22:06 • (MS) R3531912-4 05/26/20 22:13 • (MSD) R3531912-5 05/26/20 22:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	ND	54.5	52.8	109	106	1	75.0-125			3.01	20
Arsenic	50.0	ND	46.2	45.0	90.6	88.2	1	75.0-125			2.62	20
Beryllium	50.0	ND	50.1	51.6	97.3	100	1	75.0-125			2.94	20
Cadmium	50.0	3.52	54.8	54.8	103	103	1	75.0-125			0.0481	20
Copper	50.0	ND	48.2	49.6	89.1	91.8	1	75.0-125			2.78	20
Lead	50.0	ND	46.8	46.6	93.5	93.2	1	75.0-125			0.383	20
Selenium	50.0	27.7	75.6	76.3	95.9	97.3	1	75.0-125			0.900	20
Thallium	50.0	ND	46.1	46.8	92.2	93.7	1	75.0-125			1.61	20
Zinc	500	127	569	566	88.5	87.9	1	75.0-125			0.492	20



Method Blank (MB)

(MB) R3533258-1 05/29/20 21:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.32	4.00
Arsenic	U		0.735	2.00
Beryllium	U		0.454	2.00
Cadmium	U		0.478	1.00
Copper	U		2.50	5.00
Lead	U		2.49	5.00
Selenium	U		0.657	2.00
Thallium	U		0.460	2.00
Zinc	U		9.96	25.0

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3533258-2 05/29/20 21:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	53.3	107	80.0-120	
Arsenic	50.0	48.8	97.6	80.0-120	
Beryllium	50.0	50.3	101	80.0-120	
Cadmium	50.0	51.9	104	80.0-120	
Copper	50.0	53.1	106	80.0-120	
Lead	50.0	46.8	93.6	80.0-120	
Selenium	50.0	54.8	110	80.0-120	
Thallium	50.0	49.0	97.9	80.0-120	
Zinc	500	499	99.7	80.0-120	

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/20 21:19 • (MS) R3533258-4 05/29/20 21:26 • (MSD) R3533258-5 05/29/20 21:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	ND	48.5	53.6	97.1	107	1	75.0-125			9.89	20
Arsenic	50.0	ND	49.8	49.7	99.7	99.5	1	75.0-125			0.210	20
Beryllium	50.0	ND	47.2	46.6	94.4	93.1	1	75.0-125			1.41	20
Cadmium	50.0	ND	53.7	54.7	107	109	1	75.0-125			1.97	20
Copper	50.0	ND	54.7	53.8	104	102	1	75.0-125			1.82	20
Lead	50.0	ND	48.1	50.2	96.2	100	1	75.0-125			4.32	20
Selenium	50.0	6.70	61.7	62.6	110	112	1	75.0-125			1.44	20
Thallium	50.0	ND	49.0	49.2	98.0	98.4	1	75.0-125			0.395	20
Zinc	500	ND	497	496	99.4	99.3	1	75.0-125			0.114	20





## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
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B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

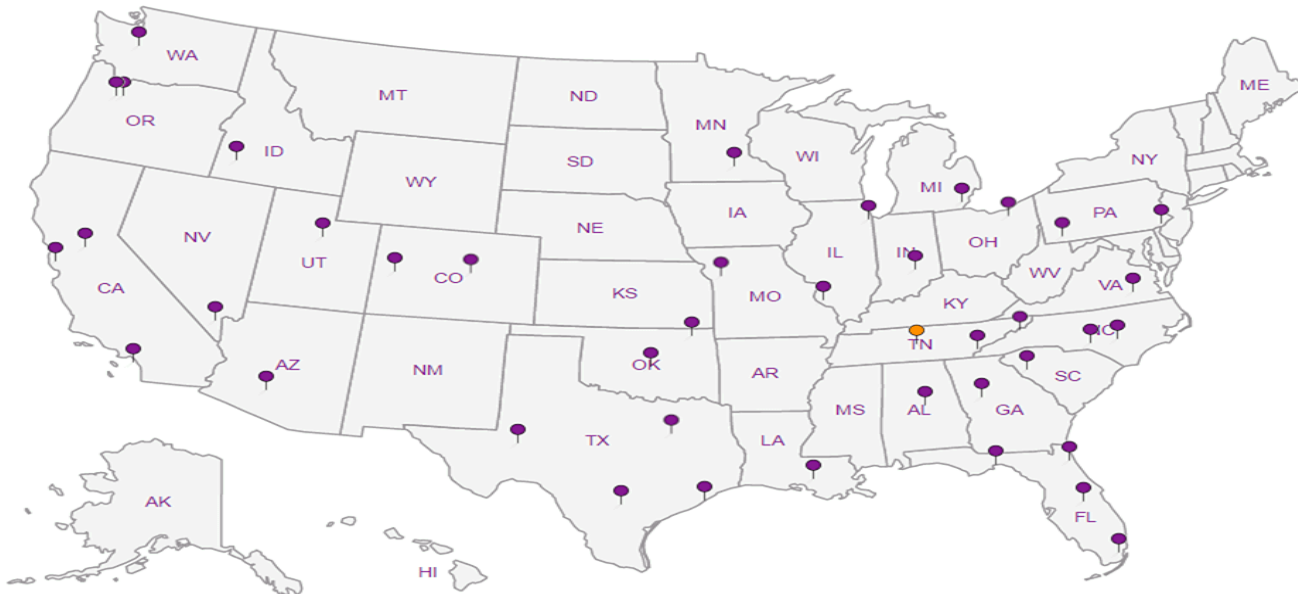
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
Jason Franks

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
KCPL - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

Rush? (Lab MUST Be Notified)

Quote #

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Date Results Needed  
Std

Immediately Packed on Ice N \_\_\_ Y X

No. of  
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	Anions (Cl, F, SO4)	COD 250mlHDPE-H2SO4	Hardness, Metals * 250mlHDPE-HNO3	Hardness, Metals ** 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres	TOC 250mlAmb-HCl	TOX 1L-Amb-Add H2SO4	Remarks	Sample # (lab only)
501	G	GW		5-21-20	1130	6	X	X	X		X	X	X		-01
502		GW			1605	6	X	X	X		X	X	X		-02
503		GW			1340	6	X	X	X		X	X	X		-03
504		GW			1250	6	X	X	X		X	X	X		-04
505		GW			1405	6	X	X	X		X	X	X		-05
507		GW			1140	6	X	X	X		X	X	X		-06
508		GW			1625	6	X	X	X		X	X	X		-07
509		GW			1755	6	X	X	X		X	X	X		-08
506		GW			1435	4		X		X		X	X		-09
506 MS/MSD		GW			1445	4		X		X		X	X		-09

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: \* Hg, Ag, Al, Ba, B, Ca, Cr, Co, Fe, Mg, Mn, Na, Ni, Sb, As, Be, Cd, Cu, Pb, Se, Ti, Zn \*\*  
Hg, Ag, Al, Ba, Cr, Co, Fe, Mg, Mn, Na, Ni, Sb, As, Be, Cd, Cu, Pb, Se, Ti, Zn

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist		
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP	<input type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
If Applicable		
VOR Zero Headspace:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
UPS \_\_\_ FedEx \_\_\_ Courier \_\_\_ Tracking #

Relinquished by: (Signature) <i>Bh</i>	Date: 5/22/20	Time: 1300	Received by: (Signature) <i>Alan Johnson</i>	Date: 5-22-20	Time: 1300	Trip Blank Received: Yes/No <input checked="" type="checkbox"/> No RCL/MoH TBR	Temp: <i>21.5</i> °C <i>21.5</i> °C	Bottles Received: <i>60</i>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Temp: _____ °C	Bottles Received:		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Harley</i>	Date: 5/23/20	Time: 845	Temp: _____ °C	Bottles Received:	Hold:	Condition: NCF 168

**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.c

Project Description:  
KCPL - Montrose Generating Station

City/State  
Collected:

Please Circle:  
PT MT **ET**

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Collected by (print):  
*Whit Martin*

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Quote #

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Date Results Needed  
*5td*

No.  
or  
Cnts

Immediately Packed on Ice N \_\_\_ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. or Cnts
-----------	-----------	----------	-------	------	------	-------------

Anions (Cld, F, SO4) 125mlHDPE-NoPres	COD 250mlHDPE-H2SO4	Hardness, Metals * 250mlHDPE-HNO3	Hardness, Metals ** 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres	TOC 250mlAmb-HCl	TOX 1L-Amb-Add H2SO4
---------------------------------------	---------------------	-----------------------------------	------------------------------------	----------------------	------------------	----------------------

SDG # *4221863*

Table #

Acctnum: **AQUAOPKS**

Template: **T68018**

Prelogin: **P769455**

PM: 206 - Jeff Carr

SPB:

Shipped Via:

Remarks | Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. or Cnts	Anions (Cld, F, SO4) 125mlHDPE-NoPres	COD 250mlHDPE-H2SO4	Hardness, Metals * 250mlHDPE-HNO3	Hardness, Metals ** 250mlHDPE-HNO3	TDS 250mlHDPE-NoPres	TOC 250mlAmb-HCl	TOX 1L-Amb-Add H2SO4	Remarks	Sample # (lab only)
DUPLICATE	<i>Grab</i>	<i>GW</i>		<i>5/21/20</i>	<i>1435</i>	<i>4</i>		<b>X</b>		<b>X</b>		<b>X</b>	<b>X</b>		<i>-10</i>

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: \* Hg,Ag,Al,Ba,B,Ca,Cr,Co,Fe,Mg,Mn,Na,Ni,Sb,As,Be,Cd,Cu,Pb,Se,Tl,Zn \*\*  
Hg,Ag,Al,Ba,Cr,Co,Fe,Mg,Mn,Na,Ni,Sb,As,Be,Cd,Cu,Pb,Se,Tl,Zn

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
COC signed/Accurate:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Bottles arrive intact:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Correct bottles used:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Sufficient volume sent:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
If Applicable				
VOA Zero Headspace:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	Y	<input type="checkbox"/>	N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature) <i>Whit Martin</i>	Date: <i>5/22/20</i>	Time: <i>1300</i>	Received by: (Signature) <i>Alan Nelson</i>	Received by: (Signature) <i>Alan Nelson</i>	Trip Blank Received: Yes/No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCL/MeOH TBR	Bottles Received: <i>60</i>	If preservation required by login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Received by: (Signature)	Temp: <i>44.3°C</i>		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Marky M</i>	Received for lab by: (Signature)	Date: <i>5/23/20</i>	Time: <i>845</i>	Hold: Condition: NCF / <input checked="" type="checkbox"/> OK

Jared Morrison  
December 20, 2022

**ATTACHMENT 1-2**  
**July 14, 2020 Sampling Event Laboratory Report**

July 23, 2020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## SCS Engineers - KS

Sample Delivery Group: L1240490  
Samples Received: 07/16/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210

Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b>Tc: Table of Contents</b>	<b>2</b>	<b><sup>2</sup>Tc</b>
<b>Ss: Sample Summary</b>	<b>3</b>	<b><sup>3</sup>Ss</b>
<b>Cn: Case Narrative</b>	<b>4</b>	<b><sup>4</sup>Cn</b>
<b>Sr: Sample Results</b>	<b>5</b>	<b><sup>5</sup>Sr</b>
<b>MW-605 L1240490-01</b>	<b>5</b>	
<b>DUPLICATE 1 L1240490-02</b>	<b>6</b>	
<b>MW-705 L1240490-03</b>	<b>7</b>	
<b>DUPLICATE 2 L1240490-04</b>	<b>8</b>	
<b>MW-706 L1240490-05</b>	<b>9</b>	<b><sup>6</sup>Qc</b>
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# SAMPLE SUMMARY



## MW-605 L1240490-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1511233	1	07/18/20 17:40	07/18/20 17:40	ELN	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 11:50  
 Received date/time: 07/16/20 08:45

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## DUPLICATE 1 L1240490-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1511233	1	07/18/20 18:35	07/18/20 18:35	ELN	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 11:55  
 Received date/time: 07/16/20 08:45

## MW-705 L1240490-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1512349	1	07/21/20 18:45	07/21/20 20:34	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1511233	10	07/18/20 19:12	07/18/20 19:12	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1511785	1	07/20/20 22:58	07/21/20 11:46	CCE	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 11:10  
 Received date/time: 07/16/20 08:45

## DUPLICATE 2 L1240490-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1512349	1	07/21/20 18:45	07/21/20 20:34	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1511233	20	07/18/20 21:02	07/18/20 21:02	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1511785	1	07/20/20 22:58	07/21/20 12:02	CCE	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 11:15  
 Received date/time: 07/16/20 08:45

## MW-706 L1240490-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1511789	1	07/21/20 12:36	07/21/20 23:49	EL	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 10:35  
 Received date/time: 07/16/20 08:45

## DUPLICATE 3 L1240490-06 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1511785	1	07/20/20 22:58	07/21/20 12:04	CCE	Mt. Juliet, TN

Collected by: G. Penaflor  
 Collected date/time: 07/14/20 10:40  
 Received date/time: 07/16/20 08:45





All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	62100		1000	1	07/18/2020 17:40	<a href="#">WG1511233</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	62100		1000	1	07/18/2020 18:35	<a href="#">WG1511233</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1190000		20000	1	07/21/2020 20:34	<a href="#">WG1512349</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfate	705000		50000	10	07/18/2020 19:12	<a href="#">WG1511233</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium	163000	<u>O1V</u>	1000	1	07/21/2020 11:46	<a href="#">WG1511785</a>

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1200000		20000	1	07/21/2020 20:34	<a href="#">WG1512349</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sulfate	695000		100000	20	07/18/2020 21:02	<a href="#">WG1511233</a>

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium	163000		1000	1	07/21/2020 12:02	<a href="#">WG1511785</a>

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	228		200	1	07/21/2020 23:49	<a href="#">WG1511789</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	225		200	1	07/21/2020 12:04	<a href="#">WG1511785</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3552211-1 07/21/20 20:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		2820	10000

1 Cp

2 Tc

3 Ss

4 Cn

L1239512-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1239512-01 07/21/20 20:34 • (DUP) R3552211-3 07/21/20 20:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	128000	130000	1	1.55		5

5 Sr

6 Qc

L1240490-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1240490-04 07/21/20 20:34 • (DUP) R3552211-4 07/21/20 20:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1200000	1210000	1	1.49		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3552211-2 07/21/20 20:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800000	8820000	100	85.0-115	





Method Blank (MB)

(MB) R3550834-1 07/18/20 09:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Sulfate	U		594	5000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1240979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1240979-01 07/18/20 22:35 • (DUP) R3550834-7 07/18/20 22:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	17700	17700	1	0.00453		15
Sulfate	95100	95300	1	0.128		15

L1241024-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1241024-04 07/19/20 02:16 • (DUP) R3550834-8 07/19/20 02:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	26400	26400	1	0.149		15
Sulfate	78300	78400	1	0.124		15

Laboratory Control Sample (LCS)

(LCS) R3550834-2 07/18/20 09:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39900	99.7	80.0-120	
Sulfate	40000	40000	100	80.0-120	

L1240490-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-01 07/18/20 17:40 • (MS) R3550834-3 07/18/20 17:58 • (MSD) R3550834-4 07/18/20 18:17

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	50000	62100	111000	111000	98.1	98.3	1	80.0-120	<u>E</u>	<u>E</u>	0.119	15
Sulfate	50000	1790000	1710000	1700000	0.000	0.000	1	80.0-120	<u>E V</u>	<u>E V</u>	0.664	15



L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-03 07/18/20 18:53 • (MS) R3550834-5 07/18/20 19:30 • (MSD) R3550834-6 07/18/20 19:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50000	11600	63200	63400	103	103	1	80.0-120			0.180	15
Sulfate	50000	719000	730000	729000	22.6	20.4	1	80.0-120	<u>EV</u>	<u>EV</u>	0.152	15

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3551586-1 07/21/20 11:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Boron	U		25.4	200
Calcium	U		389	1000

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

Laboratory Control Sample (LCS)

(LCS) R3551586-2 07/21/20 11:43

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Boron	1000	973	97.3	80.0-120	
Calcium	10000	9810	98.1	80.0-120	

<sup>5</sup> Sr

<sup>6</sup> Qc

L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-03 07/21/20 11:46 • (MS) R3551586-4 07/21/20 11:56 • (MSD) R3551586-5 07/21/20 11:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Boron	1000	208	1190	1180	98.2	97.2	1	75.0-125			0.787	20
Calcium	10000	163000	167000	170000	38.9	63.5	1	75.0-125	<u>V</u>	<u>V</u>	1.46	20

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3551758-1 07/21/20 23:44

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Boron	U		25.4	200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3551758-2 07/21/20 23:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1000	990	99.0	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1240490-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-05 07/21/20 23:49 • (MS) R3551758-4 07/21/20 23:55 • (MSD) R3551758-5 07/21/20 23:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1000	228	1220	1210	99.1	98.4	1	75.0-125			0.540	20

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

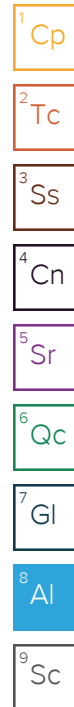
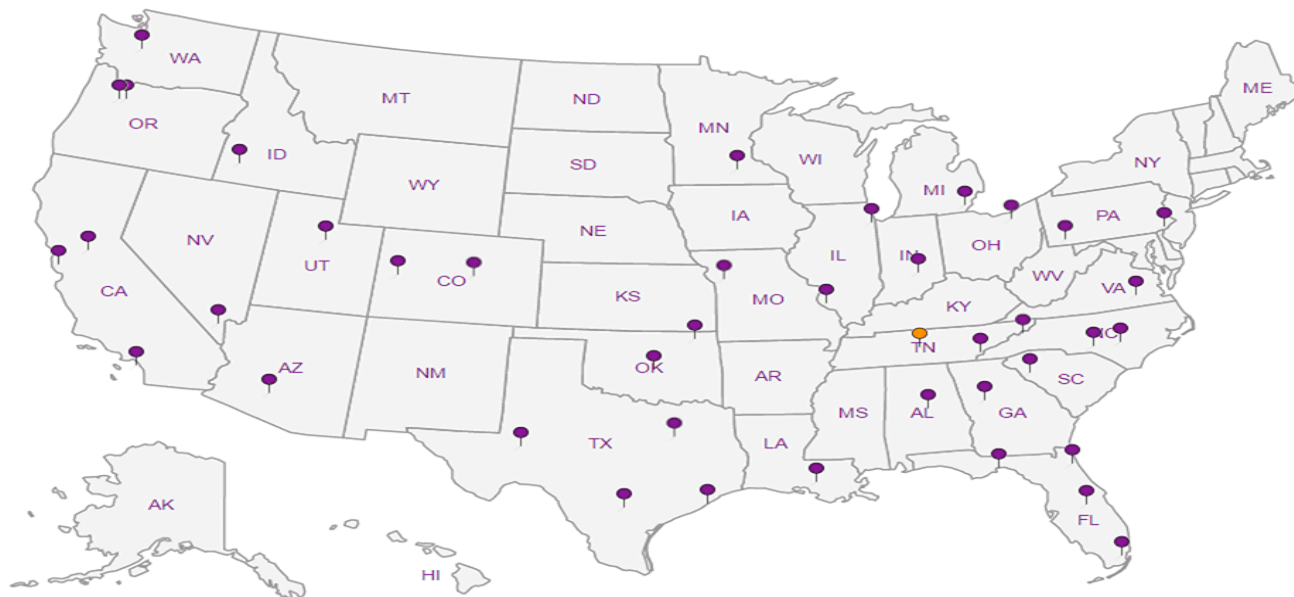
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



**SCS Engineers - KS**

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.com

Project Description:  
**Evergy - Montrose Generating Station**

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
*G. Pengafior*

Site/Facility ID #

P.O. #

Collected by (signature):  
*G. Pengafior*

**Rush?** (Lab MUST Be Notified)

Quote #

Immediately  
Packed on Ice N \_\_\_ Y X

\_\_\_ Same Day \_\_\_ Five Day  
\_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
\_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
\_\_\_ Three Day

Date Results Needed  
*Std*

No.  
of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Boron - 6010 250mlHDPE-HNO3	Calcium - 6010 250mlHDPE-HNO3	Chloride - 9056 125mlHDPE-NoPres	Sulfate 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-605	<i>GRAB</i>	GW		<i>7/14/20</i>	<i>1150</i>	1			X				<i>-01</i>
MW-605 MS/MSD		GW			<i>1200</i>	1			X				<i>01</i>
DUPLICATE 1		GW			<i>1155</i>	1			X				<i>02</i>
MW-705		GW			<i>1110</i>	3		X	X	X			<i>03</i>
MW-705 MS/MSD		GW			<i>1120</i>	3		X	X	X			<i>03</i>
DUPLICATE 2		GW			<i>1115</i>	3		X	X	X			<i>04</i>
MW-706		GW			<i>1035</i>	1	X						<i>05</i>
MW-706 MS/MSD		GW			<i>1045</i>	1	X						<i>05</i>
DUPLICATE 3		GW			<i>1040</i>	1	X						<i>06</i>

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - Waste Water  
DW - Drinking Water  
OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N
COC signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
\_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking# *1848 4330 2058*

Relinquished by: (Signature) <i>G. Pengafior</i>	Date: <i>7/15/20</i>	Time: <i>1325</i>	Received by: (Signature) <i>Alan Johnson</i>	Date: <i>7-15-20</i>	Time: <i>1326</i>	Trip Blank Received: Yes/No <input type="checkbox"/> HCL / MeOH <input type="checkbox"/> TBR	Bottles Received: <i>0.9 = 0.36 15</i>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Hold:	Condition: NCF <u>10K</u>	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Belwess</i>	Date: <i>7/15/20</i>	Time: <i>8:45</i>	Hold:	Condition: NCF <u>10K</u>	

Jared Morrison  
December 20, 2022

**ATTACHMENT 1-3**  
**July 27, 2020 Sampling Event Laboratory Report**



## SCS Engineers - KS

Sample Delivery Group: L1244537  
Samples Received: 07/29/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210






Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Sr: Sample Results</b>	<b>6</b>	
MW-701 L1244537-01	6	
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MW-702 L1244537-03	8	
MW-702 L1244537-04	9	
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MW-703 L1244537-06	11	
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MW-705 L1244537-10	15	
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Mercury by Method 7470A	22	
Metals (ICP) by Method 6010B	23	
Metals (ICPMS) by Method 6020	24	
<b>Gl: Glossary of Terms</b>	<b>25</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>26</b>	
<b>Sc: Sample Chain of Custody</b>	<b>27</b>	

# SAMPLE SUMMARY



## MW-701 L1244537-01 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 11:45

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:31	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:00	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 13:59	JPD	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## MW-701 L1244537-02 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 11:45

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1517686	1	08/05/20 02:19	08/05/20 02:19	ELN	Mt. Juliet, TN

## MW-702 L1244537-03 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 12:35

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:33	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:03	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 14:03	JPD	Mt. Juliet, TN

## MW-702 L1244537-04 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 12:35

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1517686	1	08/05/20 03:11	08/05/20 03:11	ELN	Mt. Juliet, TN

## MW-703 L1244537-05 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 13:20

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:35	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:06	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 14:06	JPD	Mt. Juliet, TN

## MW-703 L1244537-06 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 13:20

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1517686	1	08/05/20 03:29	08/05/20 03:29	ELN	Mt. Juliet, TN

## MW-704 L1244537-07 GW

Collected by  
Whit Martin

Collected date/time  
07/27/20 14:05

Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:37	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:09	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 14:09	JPD	Mt. Juliet, TN

# SAMPLE SUMMARY



## MW-704 L1244537-08 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1518253	1	08/03/20 12:09	08/03/20 12:09	ELN	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 14:05  
 Received date/time 07/29/20 09:00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## MW-705 L1244537-09 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:39	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:11	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 14:13	JPD	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 14:50  
 Received date/time 07/29/20 09:00

## MW-705 L1244537-10 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1518253	1	08/03/20 12:43	08/03/20 12:43	ELN	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 14:50  
 Received date/time 07/29/20 09:00

## MW-706 L1244537-11 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 08:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 21:29	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 13:21	JPD	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 15:35  
 Received date/time 07/29/20 09:00

## MW-706 L1244537-12 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1518253	1	08/03/20 13:00	08/03/20 13:00	ELN	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 15:35  
 Received date/time 07/29/20 09:00

## DUPLICATE L1244537-13 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1517339	1	07/29/20 19:46	07/30/20 09:41	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1517392	1	07/30/20 16:57	07/30/20 22:14	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1517395	1	08/01/20 09:21	08/01/20 14:16	JPD	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 15:35  
 Received date/time 07/29/20 09:00

## DUPLICATE L1244537-14 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1518253	1	08/03/20 13:53	08/03/20 13:53	ELN	Mt. Juliet, TN

Collected by Whit Martin  
 Collected date/time 07/27/20 15:35  
 Received date/time 07/29/20 09:00



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	0.287		0.200	1	07/30/2020 09:31	<a href="#">WG1517339</a>

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	8.26		5.00	1	07/30/2020 22:00	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:00	<a href="#">WG1517392</a>
Cobalt	23.9		10.0	1	07/30/2020 22:00	<a href="#">WG1517392</a>
Lithium	186		15.0	1	07/30/2020 22:00	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:00	<a href="#">WG1517392</a>

3 Ss

4 Cn

5 Sr

6 Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Arsenic	ND		2.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Cadmium	4.31		1.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Cobalt	22.1		2.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Selenium	7.06		2.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 13:59	<a href="#">WG1517395</a>

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	1020		64.0	150	1	08/05/2020 02:19	<a href="#">WG1517686</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 09:33	<a href="#">WG1517339</a>

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	14.1		5.00	1	07/30/2020 22:03	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:03	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 22:03	<a href="#">WG1517392</a>
Lithium	43.9		15.0	1	07/30/2020 22:03	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:03	<a href="#">WG1517392</a>

3 Ss

4 Cn

5 Sr

6 Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Arsenic	ND		2.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Cobalt	4.61		2.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 14:03	<a href="#">WG1517395</a>

7 Gl

8 Al

9 Sc





Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	185		64.0	150	1	08/05/2020 03:11	<a href="#">WG1517686</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 09:35	<a href="#">WG1517339</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	39.4		5.00	1	07/30/2020 22:06	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:06	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 22:06	<a href="#">WG1517392</a>
Lithium	53.5		15.0	1	07/30/2020 22:06	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:06	<a href="#">WG1517392</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Arsenic	ND		2.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Cobalt	4.43		2.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 14:06	<a href="#">WG1517395</a>

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	131	J	64.0	150	1	08/05/2020 03:29	<a href="#">WG1517686</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 09:37	<a href="#">WG1517339</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	56.1		5.00	1	07/30/2020 22:09	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:09	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 22:09	<a href="#">WG1517392</a>
Lithium	50.5		15.0	1	07/30/2020 22:09	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:09	<a href="#">WG1517392</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Arsenic	13.1		2.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Cobalt	7.08		2.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 14:09	<a href="#">WG1517395</a>

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	119	J	64.0	150	1	08/03/2020 12:09	<a href="#">WG1518253</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 09:39	<a href="#">WG1517339</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	45.8		5.00	1	07/30/2020 22:11	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:11	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 22:11	<a href="#">WG1517392</a>
Lithium	61.5		15.0	1	07/30/2020 22:11	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:11	<a href="#">WG1517392</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Arsenic	4.50		2.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Cobalt	ND		2.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 14:13	<a href="#">WG1517395</a>

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	196		64.0	150	1	08/03/2020 12:43	<a href="#">WG1518253</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 08:51	<a href="#">WG1517339</a>

1 Cp

2 Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	31.0		5.00	1	07/30/2020 21:29	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 21:29	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 21:29	<a href="#">WG1517392</a>
Lithium	49.8		15.0	1	07/30/2020 21:29	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 21:29	<a href="#">WG1517392</a>

3 Ss

4 Cn

5 Sr

6 Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Arsenic	13.6		2.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Cobalt	7.09		2.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 13:21	<a href="#">WG1517395</a>

7 Gl

8 Al

9 Sc





Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	184		64.0	150	1	08/03/2020 13:00	<a href="#">WG1518253</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Collected date/time: 07/27/20 15:35

L1244537

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.200	1	07/30/2020 09:41	<a href="#">WG1517339</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Barium	31.4		5.00	1	07/30/2020 22:14	<a href="#">WG1517392</a>
Chromium	ND		10.0	1	07/30/2020 22:14	<a href="#">WG1517392</a>
Cobalt	ND		10.0	1	07/30/2020 22:14	<a href="#">WG1517392</a>
Lithium	50.1		15.0	1	07/30/2020 22:14	<a href="#">WG1517392</a>
Molybdenum	ND		5.00	1	07/30/2020 22:14	<a href="#">WG1517392</a>

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		4.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Arsenic	13.9		2.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Beryllium	ND		2.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Cadmium	ND		1.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Cobalt	7.44		2.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Lead	ND		5.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Selenium	ND		2.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>
Thallium	ND		2.00	1	08/01/2020 14:16	<a href="#">WG1517395</a>

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Fluoride	171		64.0	150	1	08/03/2020 13:53	<a href="#">WG1518253</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3556430-1 08/04/20 10:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Fluoride	U		64.0	150

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1244355-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1244355-01 08/04/20 17:20 • (DUP) R3556430-3 08/04/20 17:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Fluoride	U	U	1	0.000		15

L1244537-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1244537-06 08/05/20 03:29 • (DUP) R3556430-8 08/05/20 03:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Fluoride	131	130	1	0.910	J	15

Laboratory Control Sample (LCS)

(LCS) R3556430-2 08/04/20 10:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Fluoride	8000	8080	101	80.0-120	

L1244356-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1244356-01 08/04/20 18:29 • (MS) R3556430-5 08/04/20 18:46

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Fluoride	5000	U	5140	103	1	80.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3556430-6 08/04/20 22:15 • (MSD) R3556430-7 08/04/20 22:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Fluoride	5000		5070	5090	99.8	100	1	80.0-120			0.496	15



Method Blank (MB)

(MB) R3556092-1 08/03/20 10:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Fluoride	U		64.0	150

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1244537-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1244537-08 08/03/20 12:09 • (DUP) R3556092-3 08/03/20 12:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Fluoride	119	121	1	1.79	↓	15

L1244562-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1244562-10 08/03/20 19:23 • (DUP) R3556092-6 08/03/20 19:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Fluoride	108	107	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3556092-2 08/03/20 10:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Fluoride	8000	7970	99.7	80.0-120	

L1244537-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244537-12 08/03/20 13:00 • (MS) R3556092-4 08/03/20 13:18 • (MSD) R3556092-5 08/03/20 13:35

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Fluoride	5000	184	4920	4960	94.7	95.5	1	80.0-120			0.780	15

L1244562-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1244562-10 08/03/20 19:23 • (MS) R3556092-7 08/03/20 19:58

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Fluoride	5000	108	5150	101	1	80.0-120	



Method Blank (MB)

(MB) R3554688-1 07/30/20 08:47

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R3554688-2 07/30/20 08:49

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.16	105	80.0-120	

6 Qc

L1244537-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244537-11 07/30/20 08:51 • (MS) R3554688-3 07/30/20 08:53 • (MSD) R3554688-4 07/30/20 08:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	ND	3.14	3.20	105	107	1	75.0-125			1.96	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3555008-1 07/30/20 21:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	U		0.895	5.00
Chromium	U		5.00	10.0
Cobalt	U		0.807	10.0
Lithium	U		5.74	15.0
Molybdenum	U		1.04	5.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS)

(LCS) R3555008-2 07/30/20 21:27

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	1000	100	80.0-120	
Chromium	1000	974	97.4	80.0-120	
Cobalt	1000	981	98.1	80.0-120	
Lithium	1000	951	95.1	80.0-120	
Molybdenum	1000	999	99.9	80.0-120	

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

L1244537-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244537-11 07/30/20 21:29 • (MS) R3555008-4 07/30/20 21:35 • (MSD) R3555008-5 07/30/20 21:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	31.0	1040	1050	101	102	1	75.0-125			1.54	20
Chromium	1000	ND	973	988	97.3	98.8	1	75.0-125			1.53	20
Cobalt	1000	ND	1040	1060	103	105	1	75.0-125			1.28	20
Lithium	1000	49.8	1030	1040	97.6	99.0	1	75.0-125			1.29	20
Molybdenum	1000	ND	1030	1040	102	104	1	75.0-125			1.57	20



Method Blank (MB)

(MB) R3555416-1 08/01/20 13:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Antimony	U		1.32	4.00
Arsenic	U		0.735	2.00
Beryllium	U		0.454	2.00
Cadmium	U		0.478	1.00
Cobalt	U		0.477	2.00
Lead	U		2.49	5.00
Selenium	U		0.657	2.00
Thallium	U		0.460	2.00

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3555416-2 08/01/20 13:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Antimony	50.0	51.5	103	80.0-120	
Arsenic	50.0	47.1	94.1	80.0-120	
Beryllium	50.0	46.4	92.8	80.0-120	
Cadmium	50.0	50.5	101	80.0-120	
Cobalt	50.0	48.1	96.3	80.0-120	
Lead	50.0	48.7	97.5	80.0-120	
Selenium	50.0	49.4	98.9	80.0-120	
Thallium	50.0	46.9	93.7	80.0-120	

L1244537-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244537-11 08/01/20 13:21 • (MS) R3555416-4 08/01/20 13:28 • (MSD) R3555416-5 08/01/20 13:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Antimony	50.0	ND	52.1	55.4	104	111	1	75.0-125			6.06	20
Arsenic	50.0	13.6	61.7	63.7	96.3	100	1	75.0-125			3.05	20
Beryllium	50.0	ND	45.4	45.3	90.7	90.6	1	75.0-125			0.169	20
Cadmium	50.0	ND	52.2	54.1	104	108	1	75.0-125			3.65	20
Cobalt	50.0	7.09	56.5	58.9	98.8	104	1	75.0-125			4.23	20
Lead	50.0	ND	51.0	50.9	102	102	1	75.0-125			0.176	20
Selenium	50.0	ND	51.4	53.9	103	108	1	75.0-125			4.70	20
Thallium	50.0	ND	49.2	49.8	98.4	99.6	1	75.0-125			1.30	20





Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

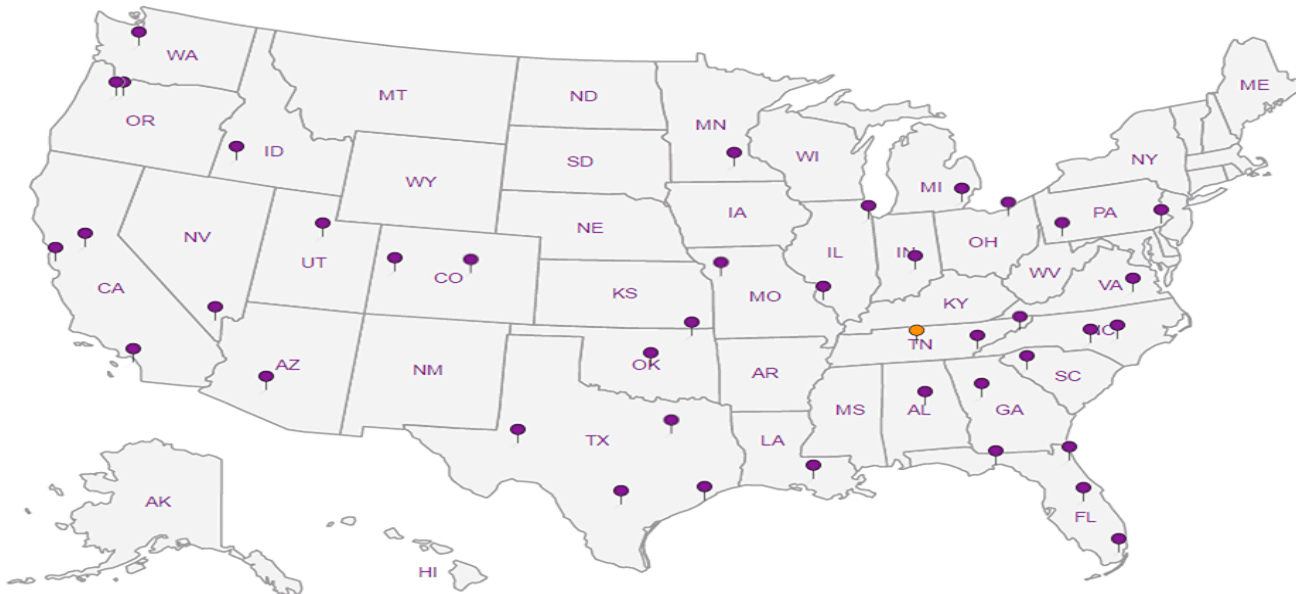
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

Billing Information:  
Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
Jason Franks

Email To:  
jfranks@scsengineers.com; jay.martin@evergy.com

Project Description:  
Energy - Montrose Generating Station

City/State  
Collected: Montrose, MO

Please Circle:  
PT MT CT ET

Phone: 913-681-0030

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

SDG # 1244537

G068

Collected by (print):  
Whit Martin

Site/Facility ID #

P.O. #

Collected by (signature):  
Whit Martin

Rush? (Lab MUST Be Notified)

Quote #

Immediately  
Packed on Ice N    Y X

Same Day    Five Day     
Next Day    5 Day (Rad Only)     
Two Day    10 Day (Rad Only)     
Three Day   

Date Results Needed  
Std

No.  
of  
Cntrs

Fluoride - 9056A 125mlHDPE-NoPres

Metals \* 250mlHDPE-HNO3

Acctnum: AQUAOPKS

Template: T171574

Prelogin: P787460

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks | Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Fluoride	Metals	Remarks	Sample # (lab only)
MW-701	Grab	GW		7/27/20	1145	1		X		- 01
MW-701	Grab	GW		7/27/20	1145	1	X			02
MW-702	Grab	GW		7/27/20	1235	1		X		03
MW-702	Grab	GW		7/27/20	1235	1	X			04
MW-703	Grab	GW		7/27/20	1320	1		X		05
MW-703	Grab	GW		7/27/20	1320	1	X			06
MW-704	Grab	GW		7/27/20	1405	1		X		07
MW-704	Grab	GW		7/27/20	1405	1	X			08
MW-705	Grab	GW		7/27/20	1450	1		X		09
MW-705	Grab	GW		7/27/20	1450	1	X			10

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: \* 6010- Ba,Co,Cr,Li,Mo 6020- Sb,As,Be,Cd,Co,Pb,Se,Tl 7470- Hg

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
If Applicable  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N  
RAD Screen <0.5 mR/hr:  Y  N

Samples returned via:  
 UPS  FedEx  Courier

Tracking # 1845 4330 0802

Relinquished by: (Signature)  
Whit Martin

Date: 7/28/20  
Time: 1610

Received by: (Signature) Alan Nelson  
Date: 7-28-20  
Time: 1611

Trip Blank Received: Yes / No  
HCL / MeOH  
TBR

Relinquished by: (Signature)

Date:

Received by: (Signature)

Temp: 7.5 ± 0.25 °C  
Bottles Received: 16

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Received for Lab by: (Signature)

Date: 7/29/20  
Time: 9:00

Hold: Condition: NCF 10

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

Report to:  
Jason Franks

Project Description:  
Evergy - Montrose Generating Station

Phone: 913-681-0030

Collected by (print):  
Whit Martin

Collected by (signature):  
*Whit Martin*

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Fluoride - 9056A 125mHDPE-NoPres	Metals * 250mHDPE-HNO3
MW-706	Grab	GW		7/27/20	1535	1		X
MW-706	Grab	GW		7/27/20	1535	1	X	
MW706 MS/MSD	Grab	GW		7/27/20	1540	1		X
MW706 MS/MSD	Grab	GW		7/27/20	1540	1	X	
DUPLICATE	Grab	GW		7/27/20	1535	1		X
DUPLICATE	Grab	GW		7/27/20	1535	1	X	

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: \* 6010- Ba,Co,Cr,Li,Mo 6020- Sb,As,Be,Cd,Co,Pb,Se,Tl 7470- Hg

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
UPS  FedEx  Courier

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

### Sample Receipt Checklist

COC Seal Present/Intact:  NP  Y  N  
COC Signed/Accurate:  Y  N  
Bottles arrive intact:  Y  N  
Correct bottles used:  Y  N  
Sufficient volume sent:  Y  N  
**If Applicable**  
VOA Zero Headspace:  Y  N  
Preservation Correct/Checked:  Y  N  
RAD Screen <0.5 mR/hr:  Y  N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

7-28-20

Trip Blank Received: Yes / No

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: ATC  
Bottles Received: 16

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 7/28/20 Time: 9:00

Hold:

Condition:  
NCF / OK

### Billing Information:

Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres Chk

u

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.com

City/State Collected: Montrose, MO

Please Circle:  
PT MT  ET

Client Project #  
27213168.20

Lab Project #  
AQUAOPKS-MONTROSE

Site/Facility ID #

P.O. #

Rush? (Lab MUST Be Notified)

Same Day  Five Day   
Next Day  5 Day (Rad Only)   
Two Day  10 Day (Rad Only)   
Three Day

Quote #

Date Results Needed

Std

No. of Cntrs

### Analysis / Container / Preservative

Chain of Custody Page 2 of 2



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



SDG # 12 44537

Table #

Acctnum: AQUAOPKS

Template: T171574

Prelogin: P787460

PM: 206 - Jeff Carr

PB:

Shipped Via:

Remarks Sample # (lab only)

11

12

13

14

15

16

## SCS Engineers - KS

Sample Delivery Group: L1244542  
Samples Received: 07/29/2020  
Project Number: 27213168.20  
Description: Evergy - Montrose Generating Station

Report To: Jason Franks  
8575 W. 110th Street  
Overland Park, KS 66210










Entire Report Reviewed By:



Jeff Carr  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
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<b>Sr: Sample Results</b>	<b>6</b>	
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# SAMPLE SUMMARY



## MW-701 L1244542-01 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 11:45  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/10/20 10:15	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

1  
Cp

2  
Tc

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Ss

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Cn

5  
Sr

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Qc

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Gl

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Al

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Sc

## MW-702 L1244542-02 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 12:35  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

## MW-703 L1244542-03 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 13:20  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

## MW-704 L1244542-04 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 14:05  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

## MW-705 L1244542-05 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 14:50  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

## MW-706 L1244542-06 Non-Potable Water

Collected by  
Whit Martin  
Collected date/time  
07/27/20 15:35  
Received date/time  
07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN



## DUPLICATE L1244542-07 Non-Potable Water

Collected by: Whit Martin  
 Collected date/time: 07/27/20 15:35  
 Received date/time: 07/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904	WG1517562	1	08/03/20 11:54	08/11/20 09:30	JMR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1523211	1	08/10/20 09:59	08/11/20 10:25	RGT	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc





All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.96		0.548	0.977	08/10/2020 10:15	<a href="#">WG1517562</a>
(T) Barium	85.4			62.0-143	08/10/2020 10:15	<a href="#">WG1517562</a>
(T) Yttrium	103			79.0-136	08/10/2020 10:15	<a href="#">WG1517562</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.18		0.760	1.24	08/11/2020 10:25	<a href="#">WG1523211</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.219		0.212	0.262	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	90.2			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

6 Qc

7 Gl

8 Al

9 Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.281		0.539	0.968	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	87.1			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	108			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.455		0.709	1.18	08/11/2020 10:25	<a href="#">WG1523211</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.173		0.170	0.208	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	100			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.289		0.532	0.983	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	78.5			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	106			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.07		1.25	1.25	08/11/2020 10:25	<a href="#">WG1523211</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.78		0.713	0.271	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	75.4			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

6 Qc

7 Gl

8 Al

9 Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.000		0.606	1.13	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	94.7			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	109			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.894		1.07	1.57	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>4</sup> Cn

<sup>5</sup> Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.894		0.461	0.435	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	83.3			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.38		0.546	1.01	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	95.0			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	106			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.43		0.994	1.28	08/11/2020 10:25	<a href="#">WG1523211</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	1.05		0.448	0.272	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	84.5			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

6 Qc

7 Gl

8 Al

9 Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.34		0.624	1.27	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	91.5			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	108			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.07		1.01	1.57	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>4</sup> Cn

<sup>5</sup> Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.735		0.388	0.301	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	81.4			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Radiochemistry by Method 904

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.422		0.546	1	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Barium	91.4			62.0-143	08/11/2020 09:30	<a href="#">WG1517562</a>
(T) Yttrium	106			79.0-136	08/11/2020 09:30	<a href="#">WG1517562</a>

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.940		0.869	1.32	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>4</sup>Cn

<sup>5</sup>Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.518		0.323	0.316	08/11/2020 10:25	<a href="#">WG1523211</a>
(T) Barium-133	86.0			30.0-143	08/11/2020 10:25	<a href="#">WG1523211</a>

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc





Method Blank (MB)

(MB) R3559811-1 08/10/20 10:15

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-228	-0.0198		0.449
(T) Barium	96.5		
(T) Yttrium	99.0		

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1242692-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1242692-01 08/10/20 10:15 • (DUP) R3559811-5 08/10/20 10:15

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.79	1.23	1	37.1	0.724		20	3
(T) Barium	88.3	92.9						
(T) Yttrium	98.4	101						

Laboratory Control Sample (LCS)

(LCS) R3559811-2 08/10/20 10:15

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.96	119	80.0-120	
(T) Barium			92.9		
(T) Yttrium			101		

L1240882-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240882-01 08/10/20 10:15 • (MS) R3559811-3 08/10/20 10:15 • (MSD) R3559811-4 08/10/20 10:15

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.739	12.8	11.6	121	108	1	70.0-130			10.3		20
(T) Barium		77.9			84.3	93.1							
(T) Yttrium		99.7			108	100							

L1244542-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244542-06 08/11/20 09:30 • (MS) R3559811-6 08/21/20 09:45 • (MSD) R3559811-7 08/21/20 09:45

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.34	9.58	10.0	82.5	87.0	1	70.0-130			4.58		20
(T) Barium		91.5			95.8	96.9							



L1244542-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244542-06 08/11/20 09:30 • (MS) R3559811-6 08/21/20 09:45 • (MSD) R3559811-7 08/21/20 09:45

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	MS RER	RPD Limits %
(T) Yttrium		108			98.3	94.4							

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3559909-1 08/11/20 10:25

Analyte	MB Result pCi/l	MB Qualifier	MB MDA pCi/l
Radium-226	0.0153		0.101
(T) Barium-133	60.3		

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1248410-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1248410-01 08/11/20 10:25 • (DUP) R3559909-5 08/11/20 10:25

Analyte	Original Result pCi/l	DUP Result pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0226	0.204	1	200	0.799		20	3
(T) Barium-133	89.6	90.6						

Laboratory Control Sample (LCS)

(LCS) R3559909-2 08/11/20 10:25

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.02	5.54	110	80.0-120	
(T) Barium-133			79.3		

L1247907-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1247907-01 08/11/20 10:25 • (MS) R3559909-3 08/11/20 10:25 • (MSD) R3559909-4 08/11/20 10:25

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.469	21.3	21.8	103	106	1	75.0-125			2.65		20
(T) Barium-133		89.4			92.7	92.7							

L1244542-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244542-06 08/11/20 10:25 • (MS) R3559909-6 08/20/20 09:22 • (MSD) R3559909-7 08/20/20 09:22

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.1	0.735	21.2	23.3	102	112	1	75.0-125			9.80		20
(T) Barium-133		81.4			80.1	83.2							



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

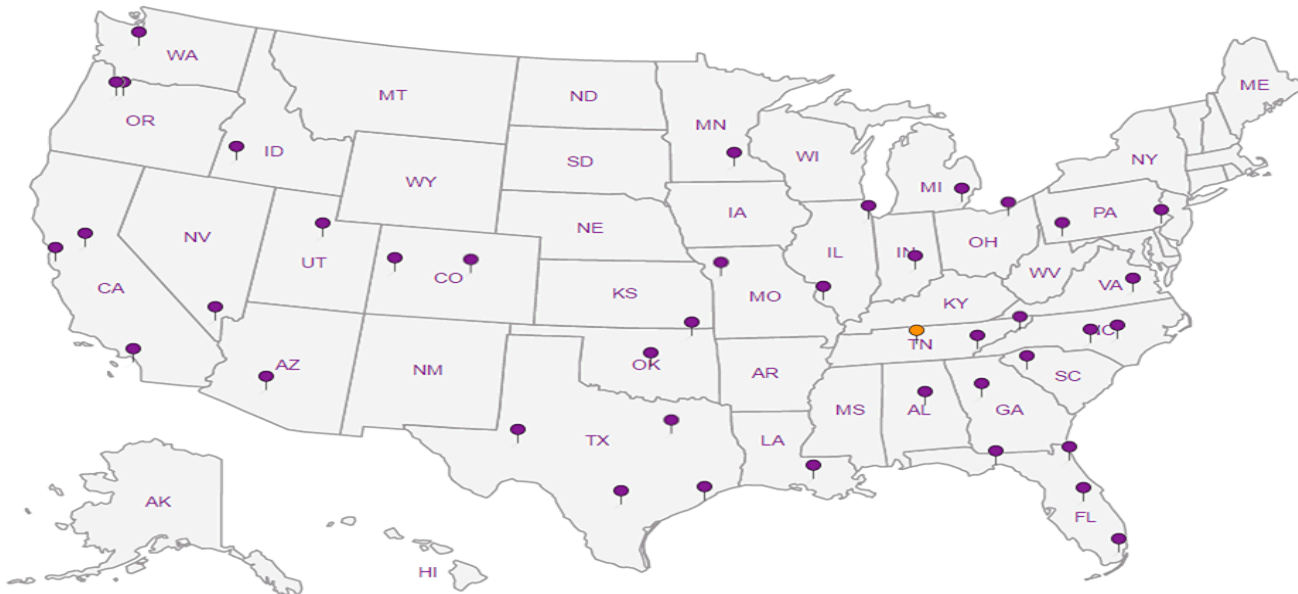
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# SCS Engineers - KS

8575 W. 110th Street  
Overland Park, KS 66210

**Billing Information:**

Accounts Payable  
8575 W. 110th Street  
Overland Park, KS 66210

Pres  
Chk *ll*

Analysis / Container / Preservative



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to:  
**Jason Franks**

Email To:  
jfranks@scsengineers.com;jay.martin@evergy.com

Project Description:  
**Evergy - Montrose Generating Station**

City/State  
Collected: **Montrose, MO**

Please Circle:  
PT MT **CT** ET

Phone: **913-681-0030**

Client Project #  
**27213168.20**

Lab Project #  
**AQUAOPKS-MONTROSE**

Collected by (print):  
**Whit Martin**

Site/Facility ID #

P.O. #

Collected by (signature):  
*Whit Martin*

**Rush?** (Lab MUST Be Notified)

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #

Date Results Needed

**Std**

No. of

Immediately Packed on Ice N  Y  X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
MW-701	Grab	NPW		7/27/20	1145	2 X
MW-702	Grab	NPW		7/27/20	1235	2 X
MW-703	Grab	NPW		7/27/20	1320	2 X
MW-704	Grab	NPW		7/27/20	1405	2 X
MW-705	Grab	NPW		7/27/20	1450	2 X
MW-706	Grab	NPW		7/27/20	1535	2 X
MW706 <sup>MS/MSD</sup>	Grab	NPW		7/27/20	1540	2 X
DUPLICATE	Grab	NPW		7/27/20	1535	2 X

RA226, RA228 1L-HDPE-Add HNO3

SDG # **1244542**  
**G069**

Acctnum: **AQUAOPKS**

Template: **T171597**

Prelogin: **P787489**

PM: **206 - Jeff Carr**

PB:

Shipped Via:

Remarks | Sample # (lab only)

-01  
02  
03  
04  
05  
06  
06  
07

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other \_\_\_\_\_

**Remarks:**

Samples returned via:  
 UPS  FedEx  Courier

Tracking # **1845 4330 0802/0798**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist		
COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP	<input type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
If Applicable		
VOA Zero Headspace:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)

*Whit Martin*

Date: **7/28/20**

Time: **1610**

Received by: (Signature)

*Alan Adams*

Date: **7-28-20**

Time: **1611**

Trip Blank Received:  Yes  No

Temp: **17°C**

Bottles Received: **16**

Relinquished by: (Signature)

*Whit Martin*

Date:

Time:

Received for lab by: (Signature)

*Alan Adams*

Date: **7/29/20**

Time: **9:00**

If preservation required by Login: Date/Time

Hold:

Condition:  
NCF / OK

Jared Morrison  
December 20, 2022

**ATTACHMENT 2**  
**Statistical Analyses**

Jared Morrison  
December 20, 2022

**ATTACHMENT 2-1**  
**Fall 2019 Semiannual Detection Monitoring Statistical Analyses**



## MEMORANDUM

March 10, 2020

To: **Montrose Generating Station**  
**400 SW Highway P**  
**Clinton, MO 64735**  
**Evergy Metro, Inc.**



From: **SCS Engineers**

RE: **Determination of Statistically Significant Increases**  
**North and South Ash Impoundments**  
**Fall 2019 Semiannual Detection Monitoring 40 CFR 257.94**

Statistical analysis of monitoring data from the multiunit groundwater monitoring system for the North and South Ash Impoundments at the Montrose Generating Station has been completed in substantial compliance with the "Statistical Method Certification by A Qualified Professional Engineer" dated October 12, 2017. Detection monitoring groundwater samples were collected on November 5, 2019. Review and validation of the results from the November 2019 Detection Monitoring Event was completed on December 13, 2019, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring.

**Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation did not identify any SSIs above background.**

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, detection sample results, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
March 10, 2020

<b>Revision Number</b>	<b>Revision Date</b>	<b>Attachment Revised</b>	<b>Summary of Revisions</b>

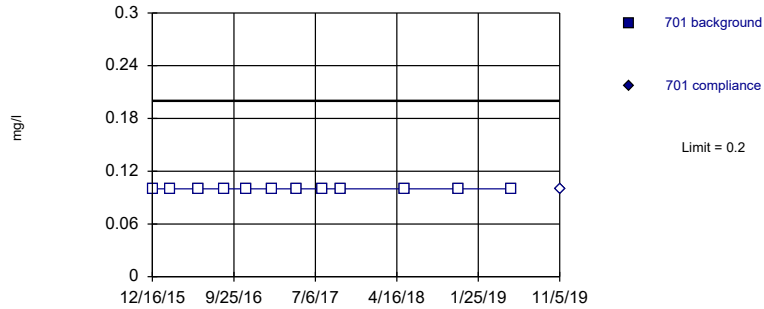
Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
March 10, 2020

## **ATTACHMENT 1**

**Sanitas™ Output**

Within Limit

Prediction Limit  
Intrawell Non-parametric

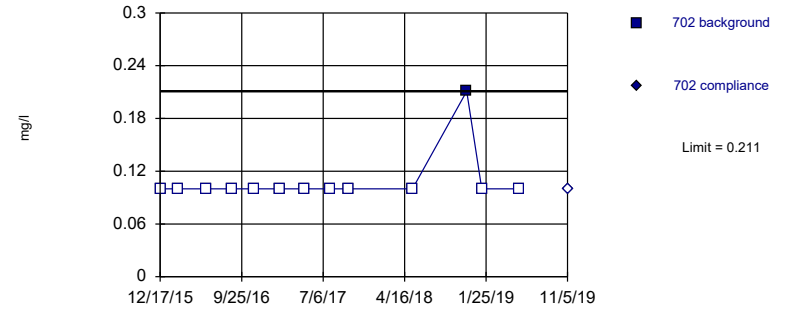


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

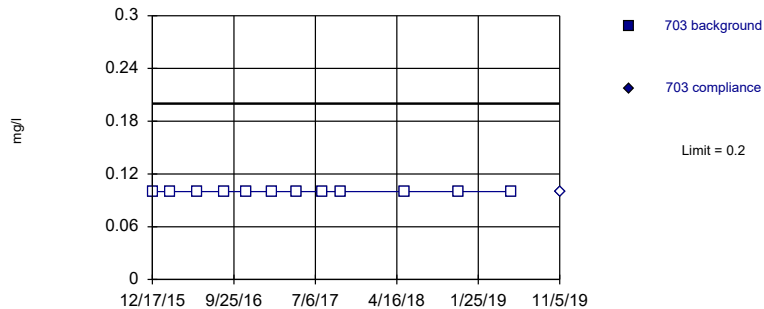


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

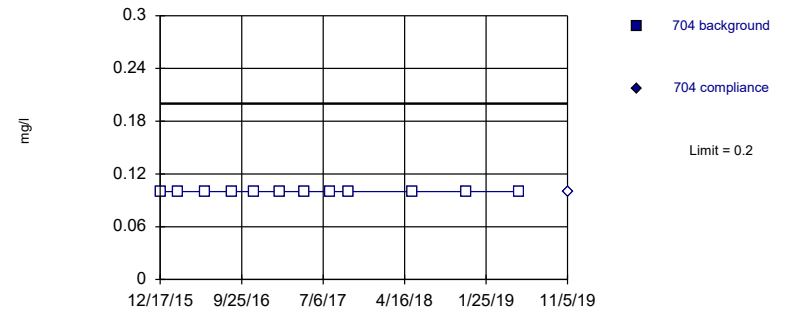


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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 = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

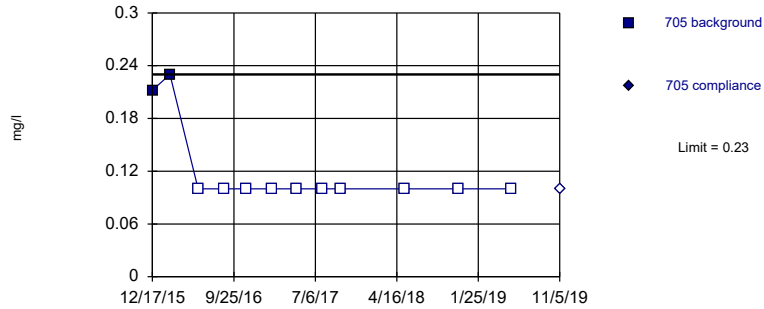
# Prediction Limit

Constituent: Boron Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	<0.2							
12/17/2015			<0.2		<0.2		<0.2	
2/16/2016	<0.2		<0.2		<0.2		<0.2	
5/23/2016					<0.2		<0.2	
5/24/2016	<0.2		<0.2					
8/22/2016	<0.2		<0.2		<0.2		<0.2	
11/7/2016			<0.2		<0.2		<0.2	
11/8/2016	<0.2							
2/7/2017	<0.2		<0.2		<0.2		<0.2	
5/2/2017	<0.2		<0.2		<0.2		<0.2	
7/31/2017	<0.2		<0.2		<0.2		<0.2	
10/2/2017	<0.2		<0.2		<0.2		<0.2	
5/14/2018	<0.2		<0.2		<0.2		<0.2	
11/19/2018	<0.2		0.211		<0.2		<0.2	
1/10/2019			<0.2					
5/21/2019	<0.2		<0.2		<0.2		<0.2	
11/5/2019		<0.2		<0.2		<0.2		<0.2

Within Limit

Prediction Limit  
 Intrawell Non-parametric

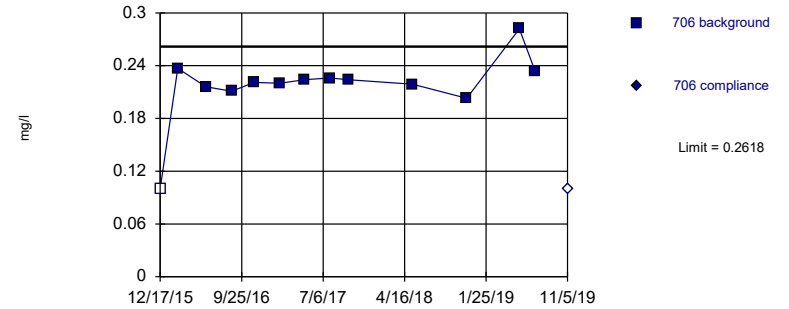


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
 Intrawell Parametric

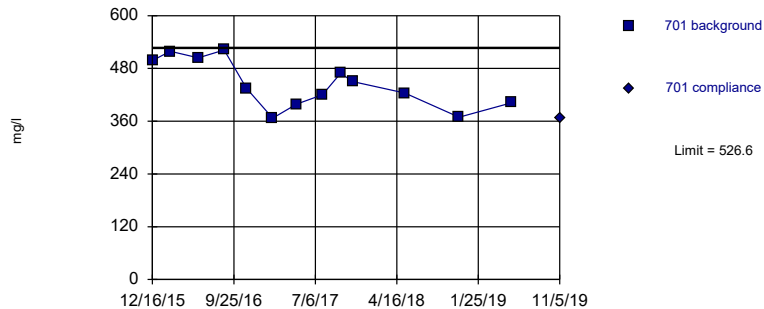


Background Data Summary (based on cube transformation): Mean=0.01103, Std. Dev.=0.004568, n=13, 7.692% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8184, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
 Intrawell Parametric

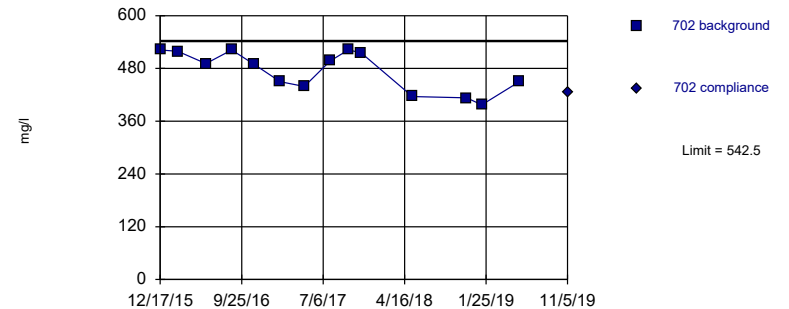


Background Data Summary: Mean=444.5, Std. Dev.=54.22, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
 Intrawell Parametric



Background Data Summary: Mean=474.6, Std. Dev.=45.71, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8722, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

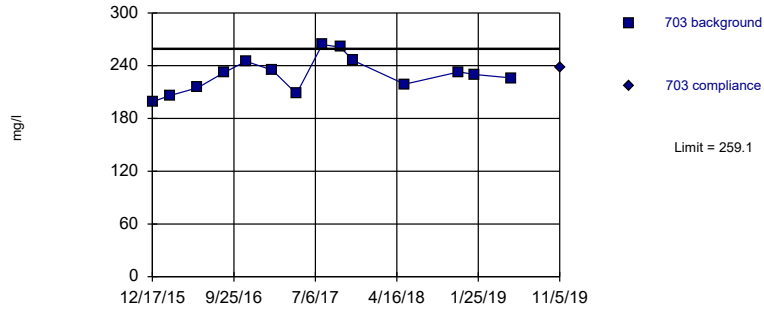
# Prediction Limit

Constituent: Boron, Calcium Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					498			
12/17/2015	0.212		<0.2				522	
2/16/2016	0.23		0.237		519		519	
5/24/2016	<0.2		0.216		504		491	
8/22/2016	<0.2		0.211		522		522	
11/7/2016							490	
11/8/2016	<0.2		0.221		435			
2/7/2017	<0.2		0.22		367		450	
5/2/2017	<0.2		0.224		399		439	
7/31/2017	<0.2		0.226		420		497	
10/2/2017	<0.2		0.224		469		522	
11/15/2017					450		516	
5/14/2018	<0.2		0.219		424		416	
11/19/2018	<0.2		0.203		369		413	
1/10/2019							397	
5/21/2019	<0.2		0.282		402		450	
7/15/2019			0.234					
11/5/2019		<0.2		<0.2		366		425

Within Limit

### Prediction Limit Intrawell Parametric

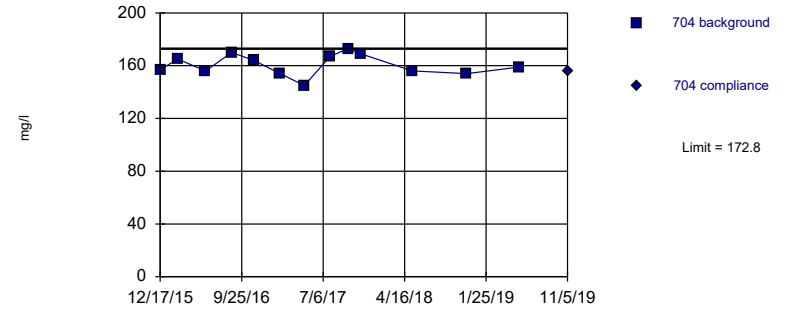


Background Data Summary: Mean=229.9, Std. Dev.=19.65, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9673, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

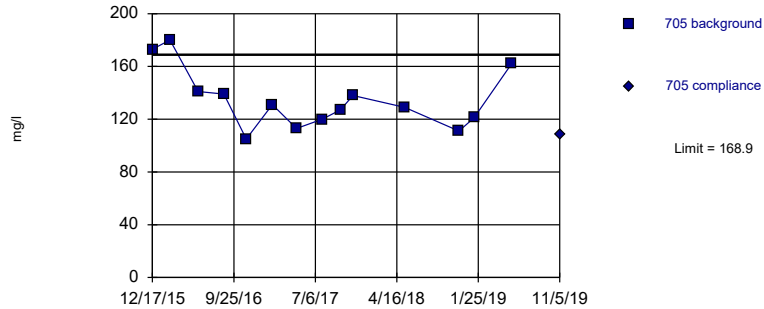


Background Data Summary: Mean=160.7, Std. Dev.=8.025, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9565, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

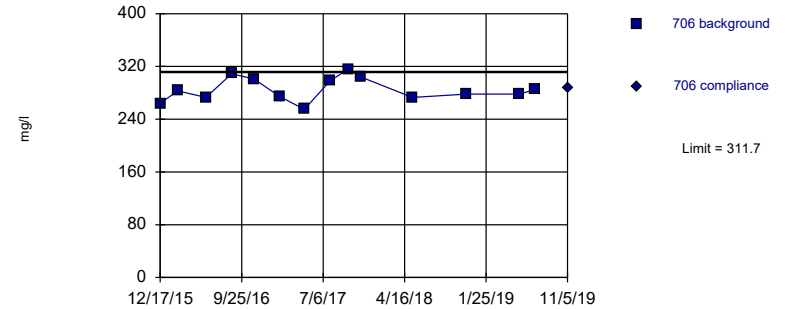


Background Data Summary: Mean=135, Std. Dev.=22.8, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9208, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=285.1, Std. Dev.=17.92, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9579, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



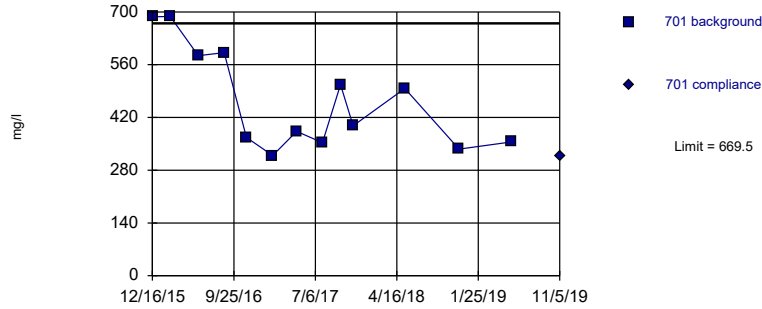
# Prediction Limit

Constituent: Calcium Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	199		157		173		264	
2/16/2016	206		165		180		283	
5/23/2016	215		156					
5/24/2016					141		273	
8/22/2016	232		170		139		309	
11/7/2016	245		164					
11/8/2016					105		301	
2/7/2017	235		154		131		274	
5/2/2017	208		145		113		255	
7/31/2017	264		167		120		298	
10/2/2017	261		173		127		316	
11/15/2017	246		169		138		304	
5/14/2018	219		156		129		273	
11/19/2018	233		154		111		278	
1/10/2019	230				121			
5/21/2019	226		159		162		278	
7/15/2019							285	
11/5/2019		238		156		108		287

Within Limit

### Prediction Limit Intrawell Parametric

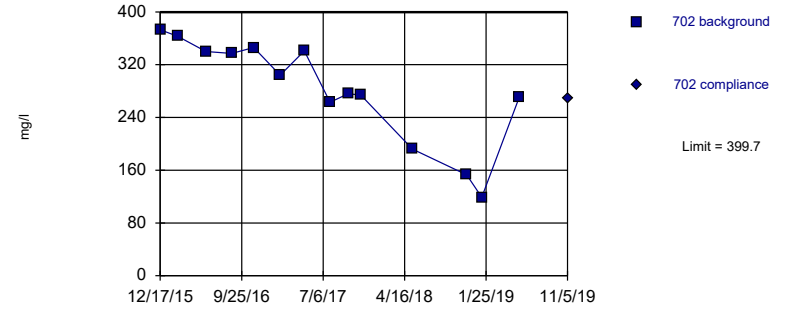


Background Data Summary: Mean=466.6, Std. Dev.=134, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.869, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

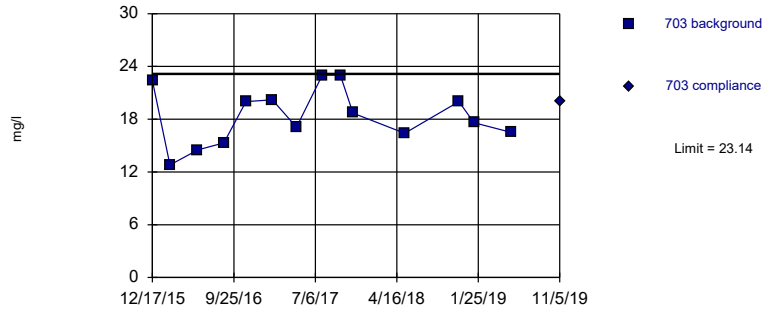


Background Data Summary: Mean=282.3, Std. Dev.=79.02, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.89, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

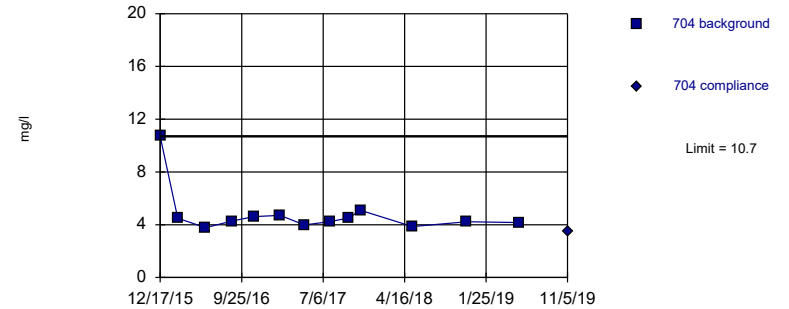


Background Data Summary: Mean=18.39, Std. Dev.=3.197, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9573, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

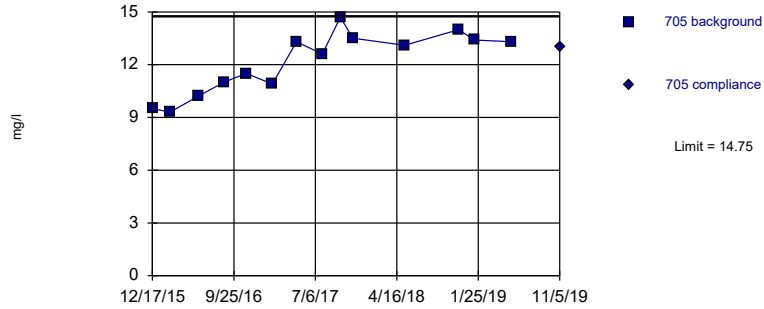
# Prediction Limit

Constituent: Chloride Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	687							
12/17/2015			373		22.4		10.7	
2/16/2016	688		363		12.8		4.49	
5/23/2016					14.5		3.77	
5/24/2016	584		340					
8/22/2016	592		337		15.3		4.27	
11/7/2016			346		20		4.61	
11/8/2016	367							
2/7/2017	319		304		20.2		4.71	
5/2/2017	383		341		17.1		3.98	
7/31/2017	353		263		23		4.24	
10/2/2017	507		276		23		4.5	
11/15/2017	398		274		18.7		5.09	
5/14/2018	497		192		16.4		3.86	
11/19/2018	336		153		20		4.22	
1/10/2019			119		17.6			
5/21/2019	355		271		16.5		4.17	
11/5/2019		319		269		20		3.47

Within Limit

### Prediction Limit Intrawell Parametric

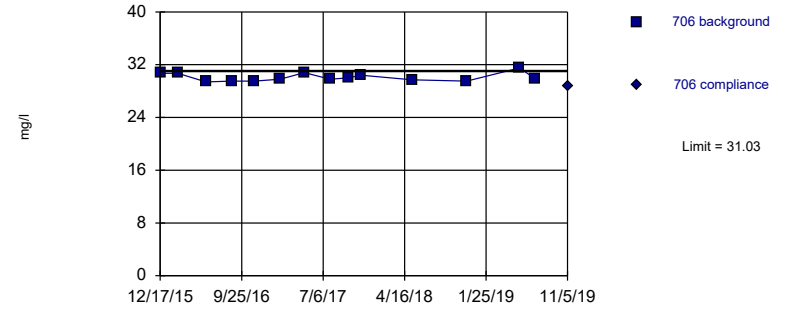


Background Data Summary: Mean=12.17, Std. Dev.=1.738, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9218, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

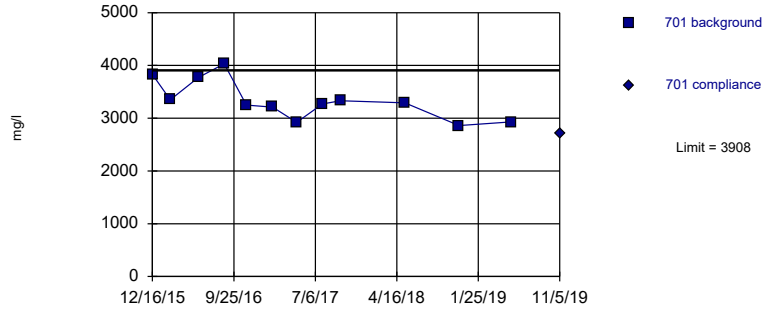


Background Data Summary: Mean=30.09, Std. Dev.=0.6335, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8854, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

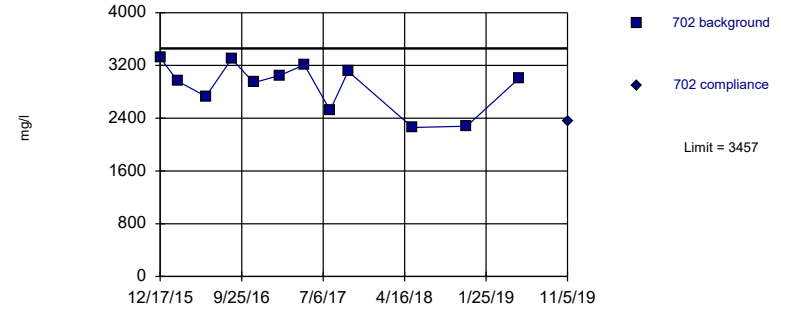


Background Data Summary: Mean=3337, Std. Dev.=370.3, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9082, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=2891, Std. Dev.=367.1, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8972, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

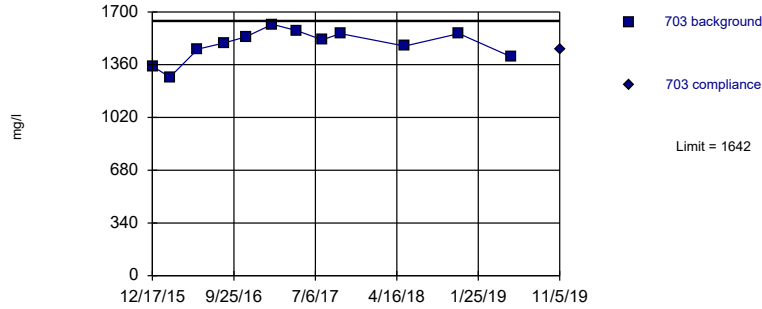
# Prediction Limit

Constituent: Chloride, Dissolved Solids Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					3830			
12/17/2015	9.51		30.7				3320	
2/16/2016	9.3		30.7		3350		2960	
5/24/2016	10.2		29.4		3770		2730	
8/22/2016	11		29.5		4030		3300	
11/7/2016							2940	
11/8/2016	11.5		29.5		3250			
2/7/2017	10.9		29.8		3210		3050	
5/2/2017	13.3		30.8		2920		3210	
7/31/2017	12.6		29.8		3270		2520	
10/2/2017	14.7		30		3330		3110	
11/15/2017	13.5		30.4					
5/14/2018	13.1		29.7		3290		2260	
11/19/2018	14		29.5		2860		2280	
1/10/2019	13.4							
5/21/2019	13.3		31.5		2930		3010	
7/15/2019			29.9					
11/5/2019		13		28.8		2700		2350

Within Limit

Prediction Limit  
Intrawell Parametric

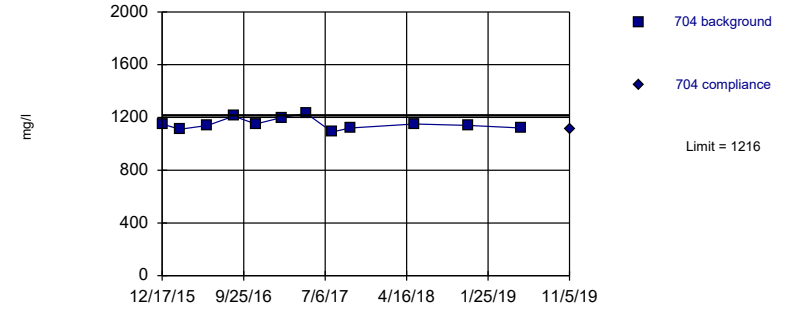


Background Data Summary: Mean=1488, Std. Dev.=99.71, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9353, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

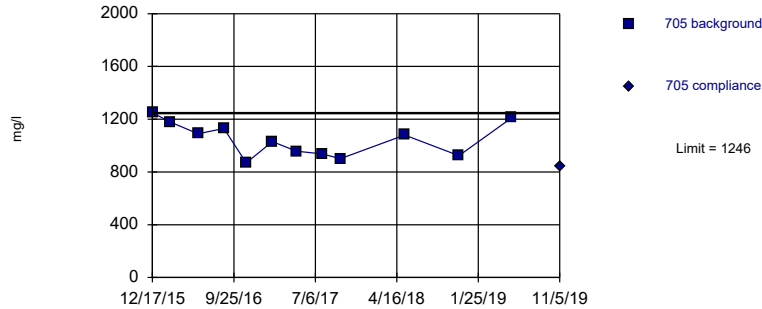


Background Data Summary: Mean=1151, Std. Dev.=42.31, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9208, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

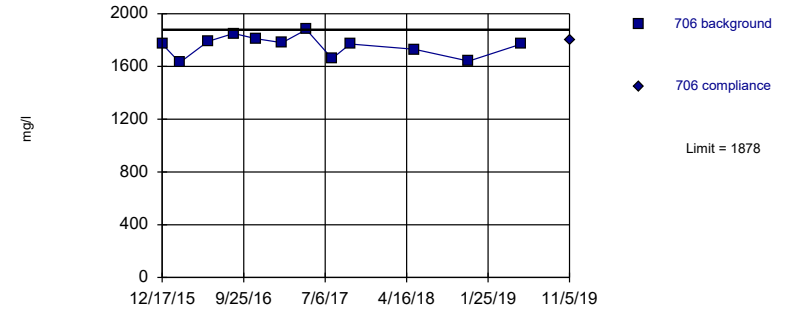


Background Data Summary: Mean=1047, Std. Dev.=129.2, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9406, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=1757, Std. Dev.=79.01, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9273, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

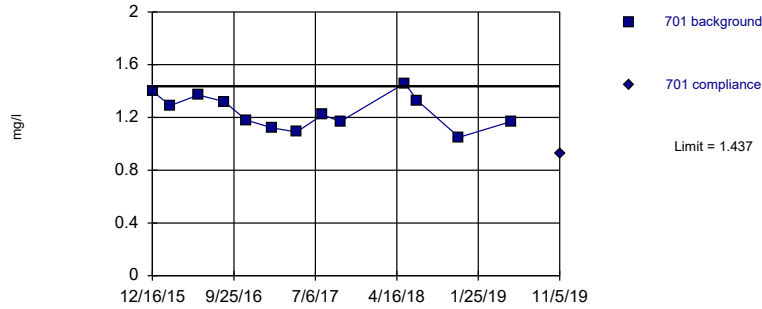
# Prediction Limit

Constituent: Dissolved Solids Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	1350		1150		1250		1770	
2/16/2016	1280		1110		1180		1630	
5/23/2016	1460		1140					
5/24/2016					1090		1790	
8/22/2016	1500		1210		1130		1850	
11/7/2016	1540		1150					
11/8/2016					869		1810	
2/7/2017	1620		1200		1030		1780	
5/2/2017	1580		1230		958		1880	
7/31/2017	1520		1090		937		1660	
10/2/2017	1560		1120		901		1770	
5/14/2018	1480		1150		1080		1730	
11/19/2018	1560		1140		924		1640	
5/21/2019	1410		1120		1210		1770	
11/5/2019		1460		1110		843		1800

Within Limit

Prediction Limit  
Intrawell Parametric

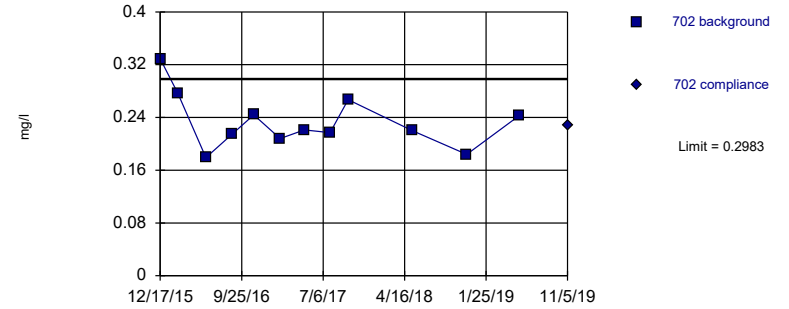


Background Data Summary: Mean=1.244, Std. Dev.=0.1273, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9631, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

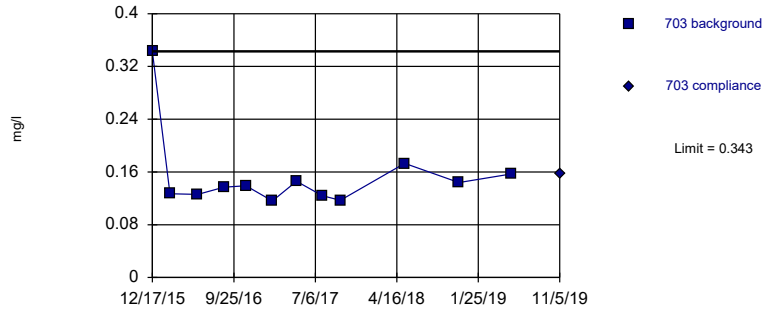


Background Data Summary: Mean=0.2336, Std. Dev.=0.04199, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

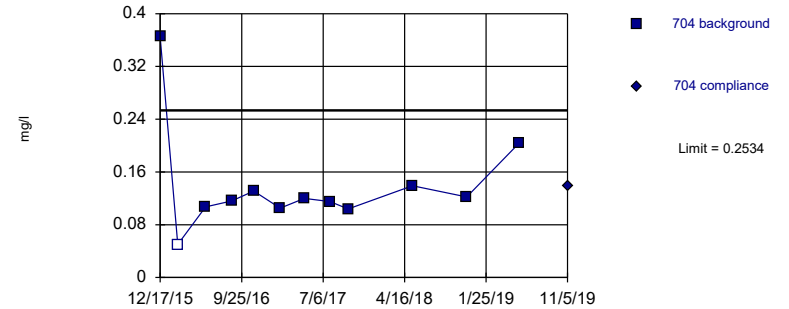


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=0.5065, Std. Dev.=0.08194, n=12, 8.333% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.82, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



# Prediction Limit

Constituent: Fluoride Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	1.4							
12/17/2015			0.329		0.343		0.365	
2/16/2016	1.29		0.277		0.127		<0.1	
5/23/2016					0.126		0.107	
5/24/2016	1.37		0.179					
8/22/2016	1.32		0.214		0.137		0.116	
11/7/2016			0.244		0.139		0.131	
11/8/2016	1.18							
2/7/2017	1.12		0.208		0.116		0.105	
5/2/2017	1.09		0.221		0.146		0.12	
7/31/2017	1.22		0.217		0.124		0.115	
10/2/2017	1.17		0.267		0.117		0.104	
5/14/2018	1.46		0.22		0.173		0.139	
6/26/2018	1.33							
11/19/2018	1.05		0.184		0.144		0.122	
5/21/2019	1.17		0.243		0.157		0.204	
11/5/2019		0.926		0.227		0.158		0.138



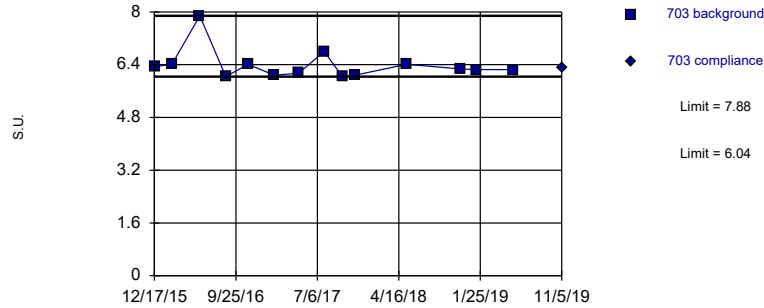
# Prediction Limit

Constituent: Fluoride, pH Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					4.12			
12/17/2015	0.246		0.235				6.17	
2/16/2016	0.179		0.16		4.13		6.51	
5/24/2016	0.18		0.169		3.83		6.45	
8/22/2016	0.187		0.171		4.37		6.39	
11/7/2016							6.35	
11/8/2016	0.176		0.177		4.05			
2/7/2017	0.168		0.168		4.57		6.44	
5/2/2017	0.18		0.176		4.24		6.34	
7/31/2017	0.185		0.181		4.47		7.15	
10/2/2017	0.169		0.165		4.84		6.19	
11/15/2017					4.68		6.67	
12/29/2017					4.17			
5/14/2018	0.185		0.165		4.4		6.4	
6/26/2018					4.23			
11/19/2018	0.19		0.2		4.34		6.37	
1/10/2019							6.83	
5/21/2019	0.202		0.135		4.58		6.19	
11/5/2019		0.185		0.186		4.39		6.35

Within Limits

Prediction Limit  
Intrawell Non-parametric



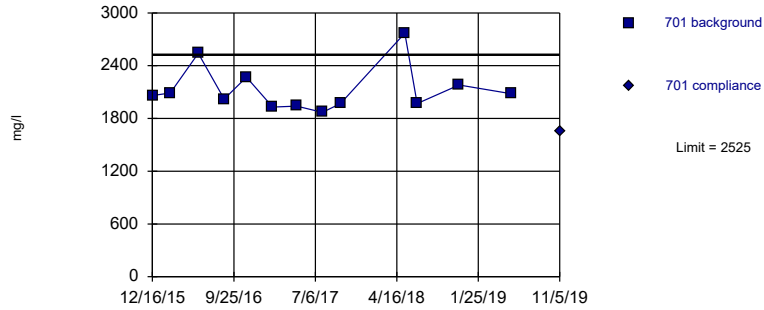
# Prediction Limit

Constituent: pH Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	6.34		6.06		6.37		6.06	
2/16/2016	6.41		6.38		6.62		6.32	
5/23/2016	7.88		6.44					
5/24/2016					6.52		9.13	
8/22/2016	6.04		6.19		6.35		6.56	
11/7/2016	6.41		6.08					
11/8/2016					6.77		6.82	
2/7/2017	6.08		6.27		6.11		6.33	
5/2/2017	6.14		6.31		6.37		6.16	
7/31/2017	6.8		6.35		7.23		7.28	
10/2/2017	6.04		6.25		6.31		6.19	
11/15/2017	6.08		6.19		6.36		6.81	
5/14/2018	6.41		6.13		6.18		6.16	
11/19/2018	6.27		6.24		6.28		6.49	
1/10/2019	6.25				6.41			
5/21/2019	6.25		6.05		6.38		6.1	
7/15/2019							6.47	
11/5/2019		6.3		6.29		6.79		6.71

Within Limit

### Prediction Limit Intrawell Parametric

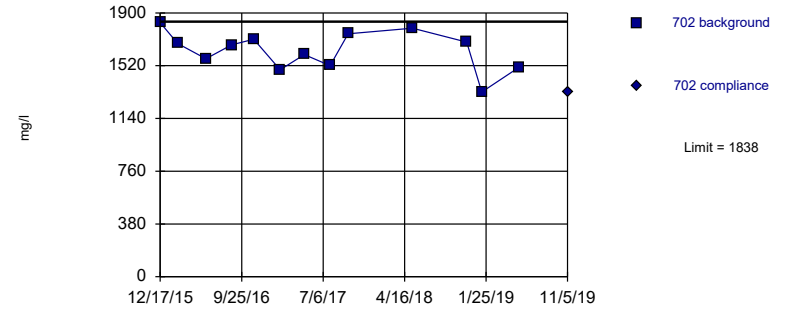


Background Data Summary: Mean=2130, Std. Dev.=260.7, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8182, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

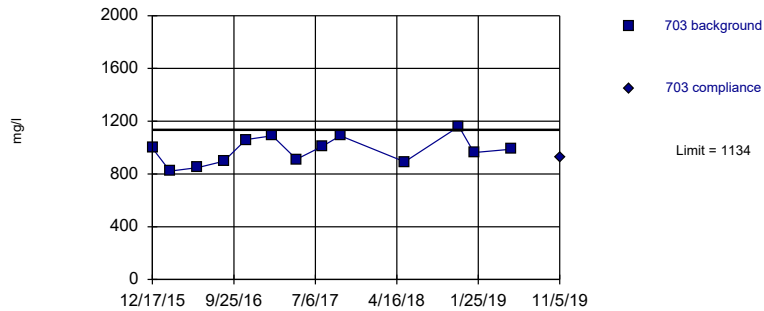


Background Data Summary: Mean=1626, Std. Dev.=139.8, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9642, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

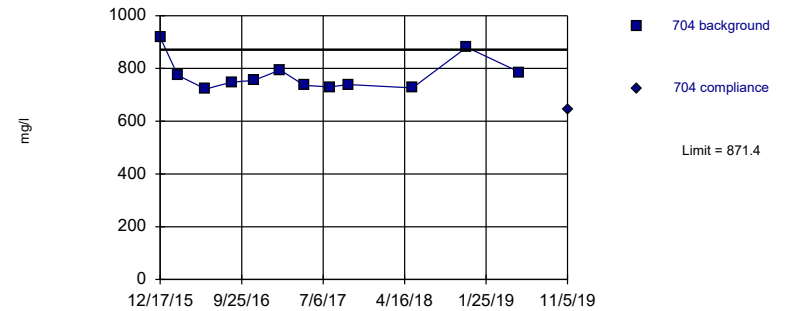


Background Data Summary: Mean=978.8, Std. Dev.=102.7, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9698, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=9.182, Std. Dev.=0.2395, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8052, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:43 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

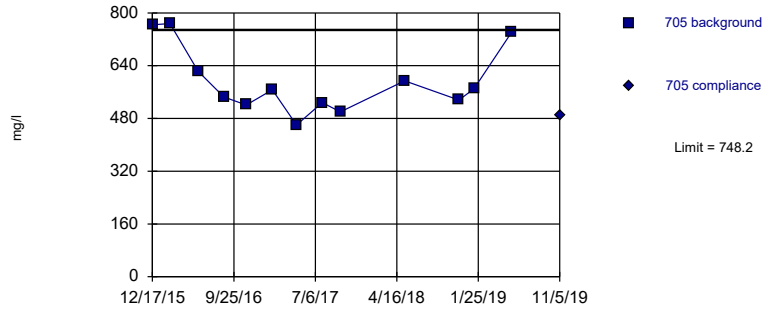
# Prediction Limit

Constituent: Sulfate Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	2060							
12/17/2015			1830		996		918	
2/16/2016	2090		1680		821		774	
5/23/2016					848		722	
5/24/2016	2540		1570					
8/22/2016	2020		1670		897		748	
11/7/2016			1710		1060		755	
11/8/2016	2270							
2/7/2017	1930		1490		1090		794	
5/2/2017	1940		1600		911		736	
7/31/2017	1870		1520		1010		730	
10/2/2017	1970		1750		1090		739	
5/14/2018	2770		1790		892		726	
6/26/2018	1970							
11/19/2018	2180		1690		1160		880	
1/10/2019			1330		962			
5/21/2019	2080		1510		988		786	
11/5/2019		1650		1330		925		644

Within Limit

Prediction Limit  
Intrawell Parametric

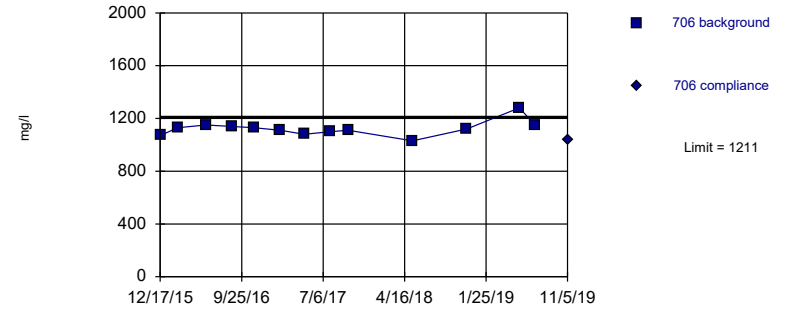


Background Data Summary: Mean=593.6, Std. Dev.=102.1, n=13. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8692, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:44 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=1123, Std. Dev.=58.22, n=13. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8649, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/25/2020 10:44 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose



# Prediction Limit

Constituent: Sulfate Analysis Run 2/25/2020 10:47 AM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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	705	705	706	706
12/17/2015	764		1070	
2/16/2016	768		1130	
5/24/2016	623		1150	
8/22/2016	545		1140	
11/8/2016	521		1130	
2/7/2017	567		1110	
5/2/2017	460		1080	
7/31/2017	528		1100	
10/2/2017	500		1110	
5/14/2018	594		1030	
11/19/2018	536		1120	
1/10/2019	570			
5/21/2019	741		1280	
7/15/2019			1150	
11/5/2019		489		1040

# Prediction Limit

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 2/25/2020, 10:47 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>
Boron (mg/l)	701	0.2	n/a	11/5/2019	0.1ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	702	0.211	n/a	11/5/2019	0.1ND	No	13	92.31	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/l)	703	0.2	n/a	11/5/2019	0.1ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	704	0.2	n/a	11/5/2019	0.1ND	No	12	100	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	705	0.23	n/a	11/5/2019	0.1ND	No	12	83.33	n/a	0.002173	NP Intra (NDs) 1 of 3
Boron (mg/l)	706	0.2618	n/a	11/5/2019	0.1ND	No	13	7.692	x^3	0.00188	Param Intra 1 of 3
Calcium (mg/l)	701	526.6	n/a	11/5/2019	366	No	13	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	702	542.5	n/a	11/5/2019	425	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	703	259.1	n/a	11/5/2019	238	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	704	172.8	n/a	11/5/2019	156	No	13	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	705	168.9	n/a	11/5/2019	108	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	706	311.7	n/a	11/5/2019	287	No	14	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	701	669.5	n/a	11/5/2019	319	No	13	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	702	399.7	n/a	11/5/2019	269	No	14	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	703	23.14	n/a	11/5/2019	20	No	14	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	704	10.7	n/a	11/5/2019	3.47	No	13	0	n/a	0.001886	NP Intra (normality) ...
Chloride (mg/l)	705	14.75	n/a	11/5/2019	13	No	14	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	706	31.03	n/a	11/5/2019	28.8	No	14	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	701	3908	n/a	11/5/2019	2700	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	702	3457	n/a	11/5/2019	2350	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	703	1642	n/a	11/5/2019	1460	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	704	1216	n/a	11/5/2019	1110	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	705	1246	n/a	11/5/2019	843	No	12	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	706	1878	n/a	11/5/2019	1800	No	12	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	701	1.437	n/a	11/5/2019	0.926	No	13	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	702	0.2983	n/a	11/5/2019	0.227	No	12	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	703	0.343	n/a	11/5/2019	0.158	No	12	0	n/a	0.002173	NP Intra (normality) ...
Fluoride (mg/l)	704	0.2534	n/a	11/5/2019	0.138	No	12	8.333	x^(1/3)	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	705	0.246	n/a	11/5/2019	0.185	No	12	0	n/a	0.002173	NP Intra (normality) ...
Fluoride (mg/l)	706	0.2123	n/a	11/5/2019	0.186	No	12	0	No	0.00188	Param Intra 1 of 3
pH (S.U.)	701	4.721	3.948	11/5/2019	4.39	No	15	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	702	6.859	6.063	11/5/2019	6.35	No	14	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	703	7.88	6.04	11/5/2019	6.3	No	14	0	n/a	0.003199	NP Intra (normality) ...
pH (S.U.)	704	6.415	6.038	11/5/2019	6.29	No	13	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	705	6.86	6.042	11/5/2019	6.79	No	14	0	sqrt(x)	0.000...	Param Intra 1 of 3
pH (S.U.)	706	9.13	6.06	11/5/2019	6.71	No	14	0	n/a	0.003199	NP Intra (normality) ...
Sulfate (mg/l)	701	2525	n/a	11/5/2019	1650	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	702	1838	n/a	11/5/2019	1330	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	703	1134	n/a	11/5/2019	925	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	704	871.4	n/a	11/5/2019	644	No	12	0	x^(1/3)	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	705	748.2	n/a	11/5/2019	489	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	706	1211	n/a	11/5/2019	1040	No	13	0	No	0.00188	Param Intra 1 of 3

Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
March 10, 2020

## **ATTACHMENT 2**

### **Sanitas™ Configuration Settings**

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each:  Month
- Median of Each:  Season

Automatically Process Resamples...

- Black and White Output
- Four Plots Per Page
  - Always Combine Data Pages...
  - Include Tick Marks on Data Page
  - Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to  Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series  ▾
- Show Deselected Data on all Data Pages  ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to  Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor:  ▾

- Output Decimal Precision
- Less Precision
  - Normal Precision
  - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer:  ▾

Use Modified Alpha...

Test Residuals For Normality (Parametric test only)  at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

- Use Best W Statistic
- Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >

Include  % Confidence Interval around Trend Line

Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data)  Never

Always Use Non-Parametric

Facility

Statistical Evaluations per Year:

Constituents Analyzed:

Downgradient (Compliance) Wells:

Sampling Plan

Comparing Individual Observations

1 of 1  1 of 2  1 of 3  1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF:  Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)

Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at  $\alpha=$   or if  $n >$   Rosner's at  $\alpha=$    Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- Test For Normality using Shapiro-Wilk/Francia at Alpha = 
  - Stop if Non-Normal
  - Continue with Parametric Test if Non-Normal
  - Tukey's if Non-Normal, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than  Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

- Combine Wells  Label Constituents
- Combine Dates  Label Axes
- Use Default Constituent Names  Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File



Jared Morrison  
December 20, 2022

**ATTACHMENT 2-2**  
**Spring 2020 Semiannual Detection Monitoring Statistical Analyses**

## MEMORANDUM

September 28, 2020

To: **Montrose Generating Station**  
**400 SW Highway P**  
**Clinton, MO 64735**  
**Evergy Metro, Inc.**



From: **SCS Engineers**

RE: **Determination of Statistically Significant Increases**  
**North and South Ash Impoundments**  
**Spring 2020 Semiannual Detection Monitoring 40 CFR 257.94**

Statistical analysis of monitoring data from the multiunit groundwater monitoring system for the North and South Ash Impoundments at the Montrose Generating Station has been completed in substantial compliance with the "Statistical Method Certification by A Qualified Professional Engineer" dated October 12, 2017. Detection monitoring groundwater samples were collected on May 21, 2020. Review and validation of the results from the May 2020 Detection Monitoring Event was completed on June 29, 2020, which constitutes completion and finalization of detection monitoring laboratory analyses. A statistical analysis was then conducted to determine whether there was a statistically significant increase (SSI) over background values for each constituent listed in Appendix III to Part 257-Constituents for Detection Monitoring. One round of verification sampling was conducted for certain constituents on July 14, 2020.

**Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation did not identify any SSIs above background.**

Attached to this memorandum are the following backup information:

Attachment 1: Sanitas™ Output:

Statistical evaluation output from Sanitas™ for the prediction limit analysis. This includes prediction limit plots, prediction limit background data, detection sample results, 1<sup>st</sup> verification re-sample results (when applicable), 2<sup>nd</sup> verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the sampling procedure, and a Prediction Limit summary table. Output documentation includes the analytical data used for the statistical analyses.

Attachment 2: Sanitas™ Configuration Settings:

Screen shots of the applicable Sanitas™ configuration settings for the statistical prediction limit analysis. This includes data configuration, output configuration, prediction limit configuration and other tests configuration.

Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
September 28, 2020

Revision Number	Revision Date	Attachment Revised	Summary of Revisions

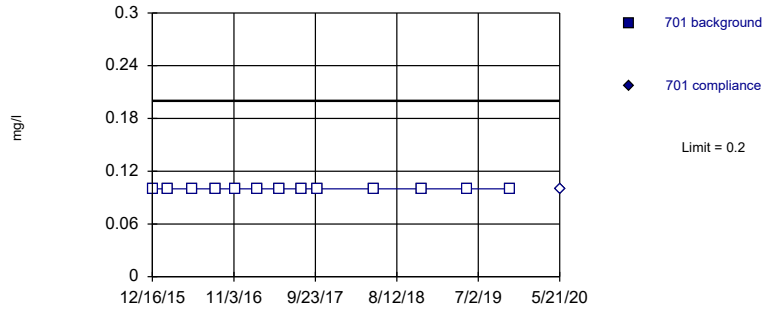
Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
September 28, 2020

## **ATTACHMENT 1**

**Sanitas™ Output**

Within Limit

Prediction Limit  
Intrawell Non-parametric

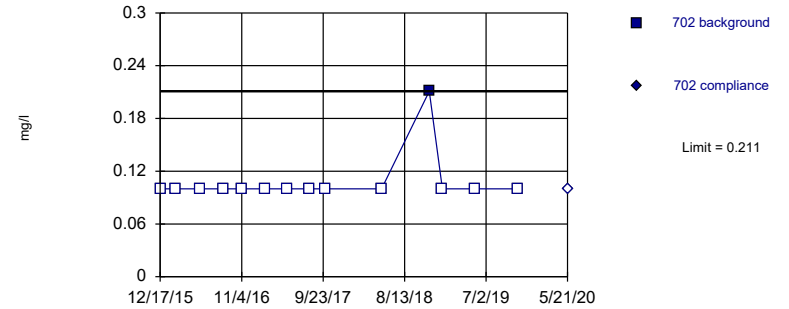


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 13) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

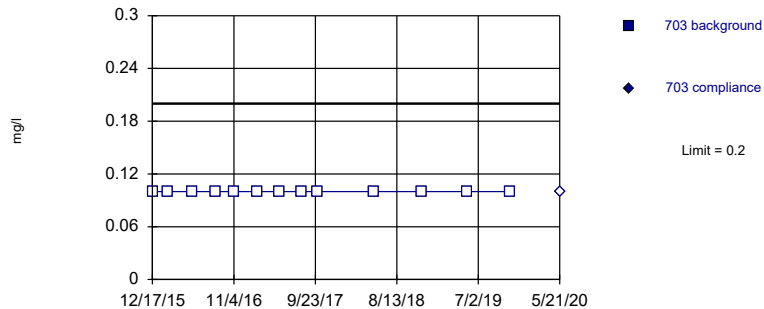


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.003197. Individual comparison alpha = 0.0016 (1 of 3). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

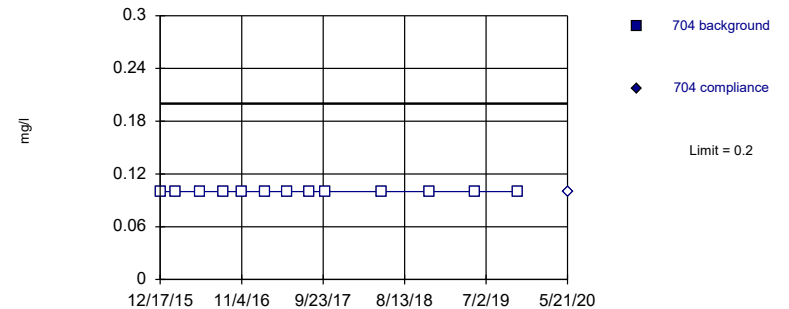


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 13) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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 = 13) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

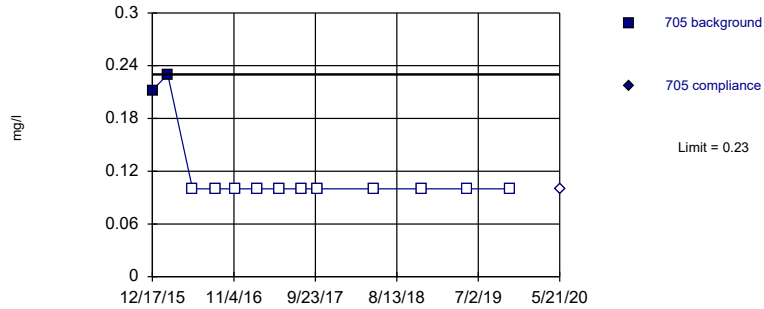
# Prediction Limit

Constituent: Boron Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	<0.2							
12/17/2015			<0.2		<0.2		<0.2	
2/16/2016	<0.2		<0.2		<0.2		<0.2	
5/23/2016					<0.2		<0.2	
5/24/2016	<0.2		<0.2					
8/22/2016	<0.2		<0.2		<0.2		<0.2	
11/7/2016			<0.2		<0.2		<0.2	
11/8/2016	<0.2							
2/7/2017	<0.2		<0.2		<0.2		<0.2	
5/2/2017	<0.2		<0.2		<0.2		<0.2	
7/31/2017	<0.2		<0.2		<0.2		<0.2	
10/2/2017	<0.2		<0.2		<0.2		<0.2	
5/14/2018	<0.2		<0.2		<0.2		<0.2	
11/19/2018	<0.2		0.211		<0.2		<0.2	
1/10/2019			<0.2					
5/21/2019	<0.2		<0.2		<0.2		<0.2	
11/5/2019	<0.2		<0.2		<0.2		<0.2	
5/21/2020		<0.2		<0.2		<0.2		<0.2

Within Limit

Prediction Limit  
Intrawell Non-parametric

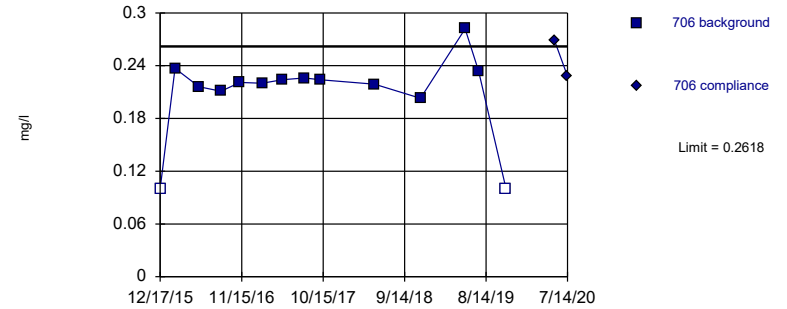


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 84.62% NDs. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

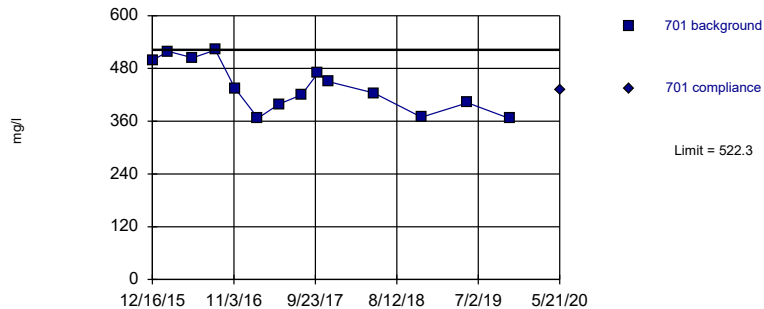


Background Data Summary (based on cube transformation): Mean=0.01031, Std. Dev.=0.005142, n=14, 14.29% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8426, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

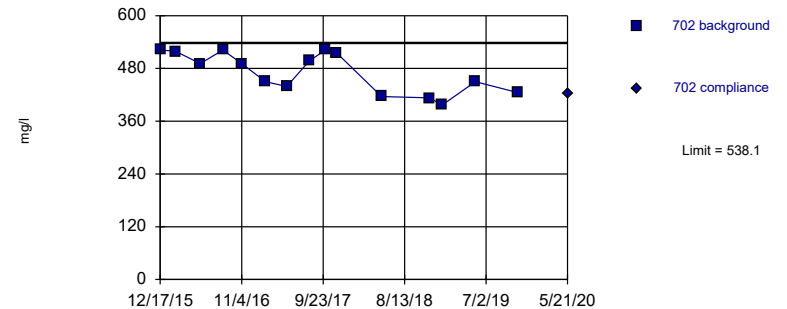


Background Data Summary: Mean=438.9, Std. Dev.=56.16, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9194, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=471.3, Std. Dev.=45.87, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8783, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

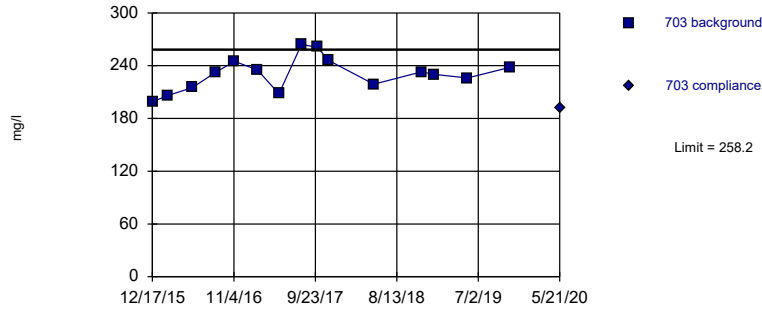
Constituent: Boron, Calcium Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					498			
12/17/2015	0.212		<0.2				522	
2/16/2016	0.23		0.237		519		519	
5/24/2016	<0.2		0.216		504		491	
8/22/2016	<0.2		0.211		522		522	
11/7/2016							490	
11/8/2016	<0.2		0.221		435			
2/7/2017	<0.2		0.22		367		450	
5/2/2017	<0.2		0.224		399		439	
7/31/2017	<0.2		0.226		420		497	
10/2/2017	<0.2		0.224		469		522	
11/15/2017					450		516	
5/14/2018	<0.2		0.219		424		416	
11/19/2018	<0.2		0.203		369		413	
1/10/2019							397	
5/21/2019	<0.2		0.282		402		450	
7/15/2019			0.234					
11/5/2019	<0.2		<0.2		366		425	
5/21/2020		<0.2		0.269		432		423
7/14/2020				0.228	1st Verification Sample			



Within Limit

Prediction Limit  
Intrawell Parametric

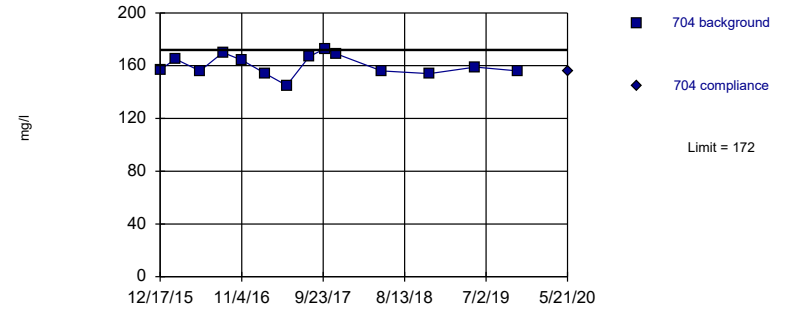


Background Data Summary: Mean=230.5, Std. Dev.=19.05, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.972, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

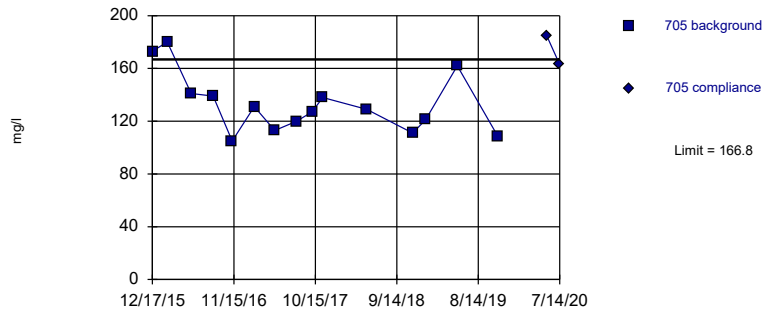


Background Data Summary: Mean=160.4, Std. Dev.=7.811, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9485, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

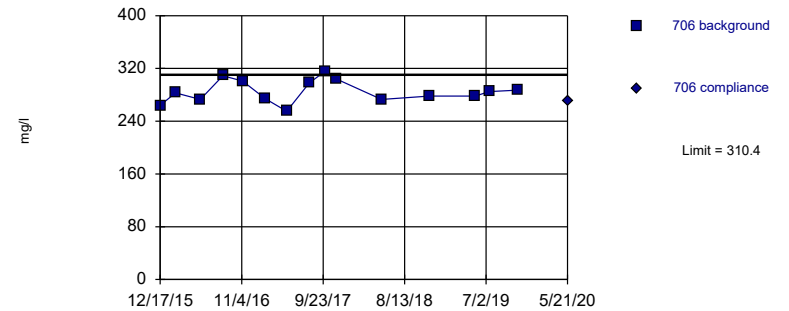


Background Data Summary: Mean=133.2, Std. Dev.=23.05, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9116, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=285.2, Std. Dev.=17.28, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9689, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

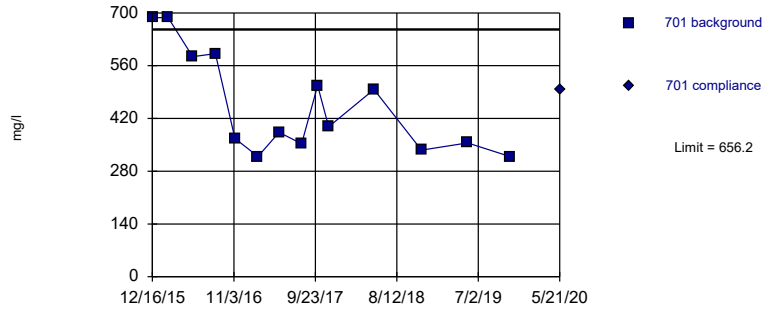
# Prediction Limit

Constituent: Calcium Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	199		157		173		264	
2/16/2016	206		165		180		283	
5/23/2016	215		156					
5/24/2016					141		273	
8/22/2016	232		170		139		309	
11/7/2016	245		164					
11/8/2016					105		301	
2/7/2017	235		154		131		274	
5/2/2017	208		145		113		255	
7/31/2017	264		167		120		298	
10/2/2017	261		173		127		316	
11/15/2017	246		169		138		304	
5/14/2018	219		156		129		273	
11/19/2018	233		154		111		278	
1/10/2019	230				121			
5/21/2019	226		159		162		278	
7/15/2019							285	
11/5/2019	238		156		108		287	
5/21/2020		192		156		185		270
7/14/2020						163	1st Verification Sample	

Within Limit

Prediction Limit  
Intrawell Parametric

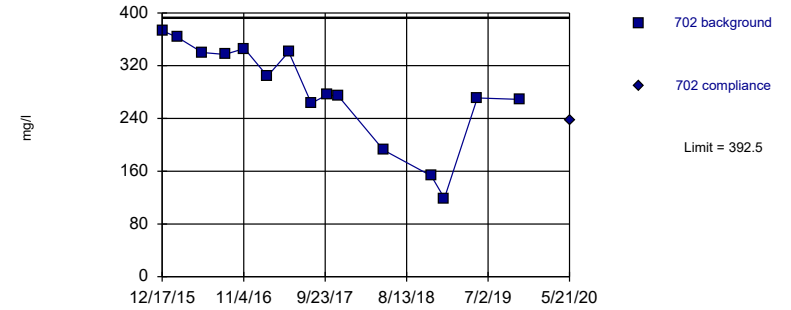


Background Data Summary: Mean=456.1, Std. Dev.=134.7, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8558, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

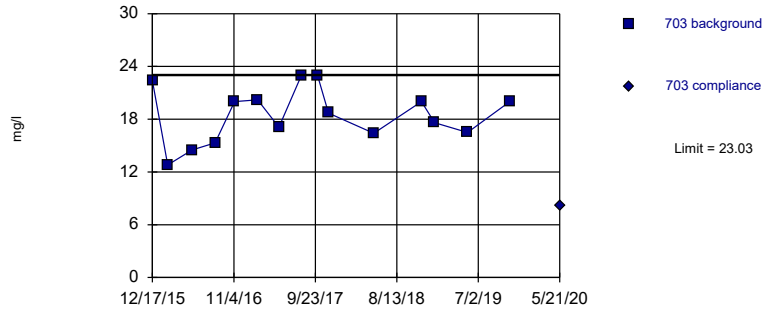


Background Data Summary: Mean=281.4, Std. Dev.=76.23, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8963, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

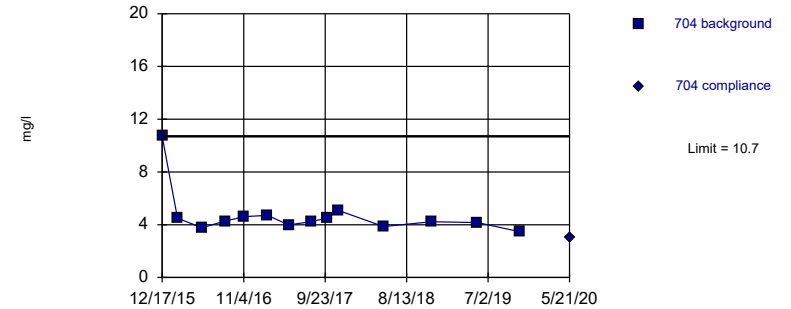


Background Data Summary: Mean=18.5, Std. Dev.=3.109, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9573, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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 14 background values. Well-constituent pair annual alpha = 0.003197. Individual comparison alpha = 0.0016 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

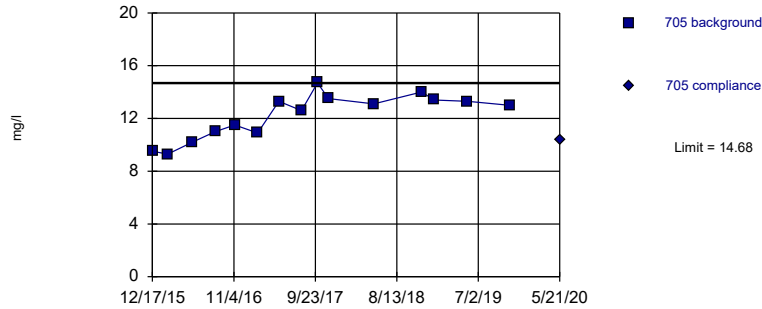
# Prediction Limit

Constituent: Chloride Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	687							
12/17/2015			373		22.4		10.7	
2/16/2016	688		363		12.8		4.49	
5/23/2016					14.5		3.77	
5/24/2016	584		340					
8/22/2016	592		337		15.3		4.27	
11/7/2016			346		20		4.61	
11/8/2016	367							
2/7/2017	319		304		20.2		4.71	
5/2/2017	383		341		17.1		3.98	
7/31/2017	353		263		23		4.24	
10/2/2017	507		276		23		4.5	
11/15/2017	398		274		18.7		5.09	
5/14/2018	497		192		16.4		3.86	
11/19/2018	336		153		20		4.22	
1/10/2019			119		17.6			
5/21/2019	355		271		16.5		4.17	
11/5/2019	319		269		20		3.47	
5/21/2020		496		238		8.16		3.03

Within Limit

Prediction Limit  
Intrawell Parametric

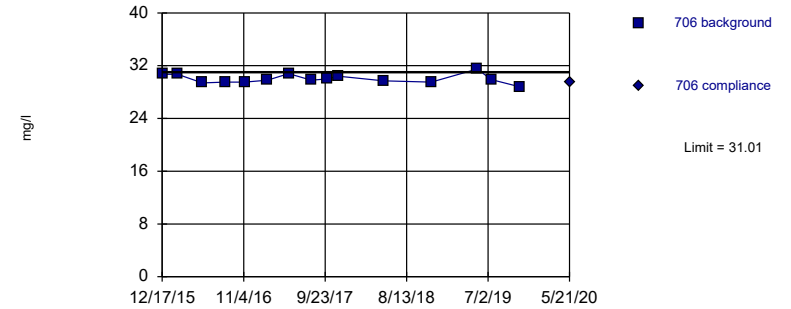


Background Data Summary: Mean=12.22, Std. Dev.=1.688, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.917, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

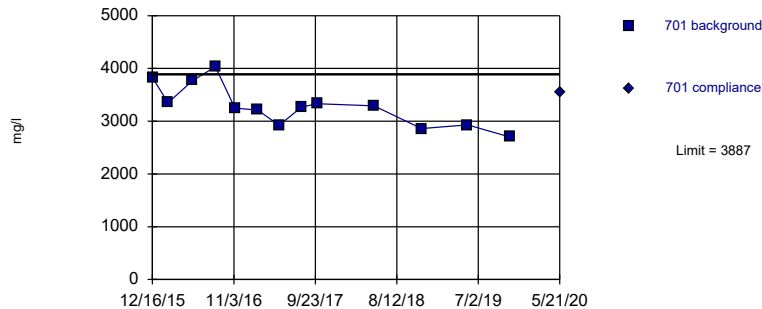


Background Data Summary: Mean=30, Std. Dev.=0.6949, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9473, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

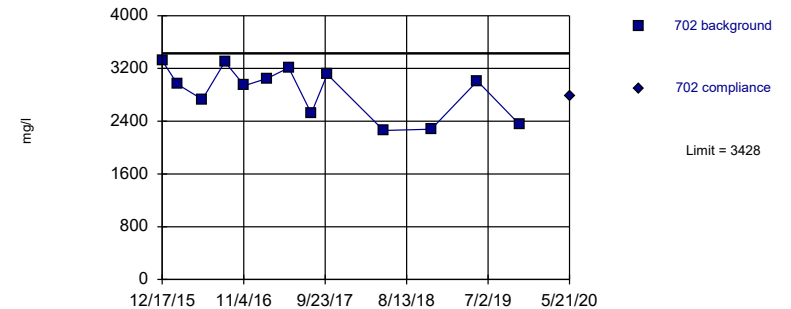


Background Data Summary: Mean=3288, Std. Dev.=396.1, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9358, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=2849, Std. Dev.=382.2, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8976, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

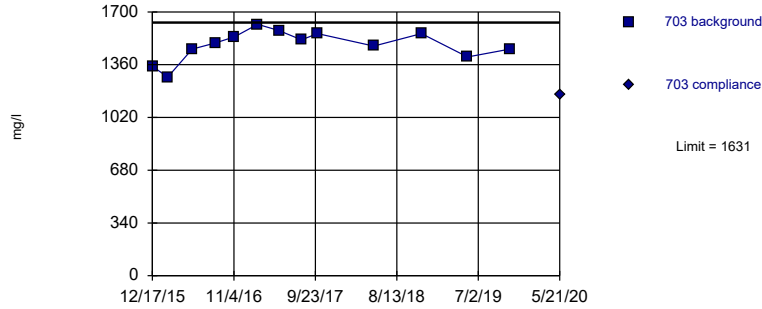
# Prediction Limit

Constituent: Chloride, Dissolved Solids Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					3830			
12/17/2015	9.51		30.7				3320	
2/16/2016	9.3		30.7		3350		2960	
5/24/2016	10.2		29.4		3770		2730	
8/22/2016	11		29.5		4030		3300	
11/7/2016							2940	
11/8/2016	11.5		29.5		3250			
2/7/2017	10.9		29.8		3210		3050	
5/2/2017	13.3		30.8		2920		3210	
7/31/2017	12.6		29.8		3270		2520	
10/2/2017	14.7		30		3330		3110	
11/15/2017	13.5		30.4					
5/14/2018	13.1		29.7		3290		2260	
11/19/2018	14		29.5		2860		2280	
1/10/2019	13.4							
5/21/2019	13.3		31.5		2930		3010	
7/15/2019			29.9					
11/5/2019	13		28.8		2700		2350	
5/21/2020		10.4		29.5		3540		2780

Within Limit

### Prediction Limit Intrawell Parametric

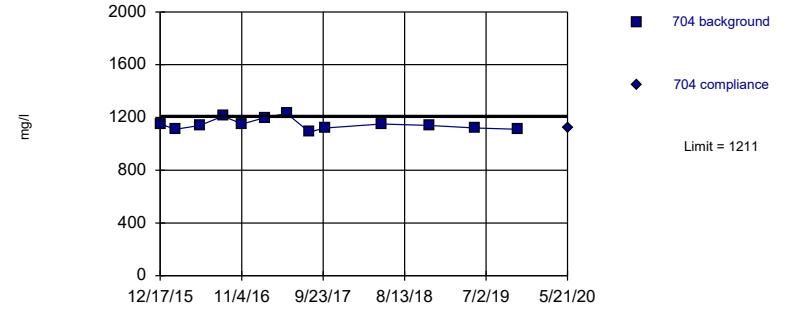


Background Data Summary: Mean=1486, Std. Dev.=95.79, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9468, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

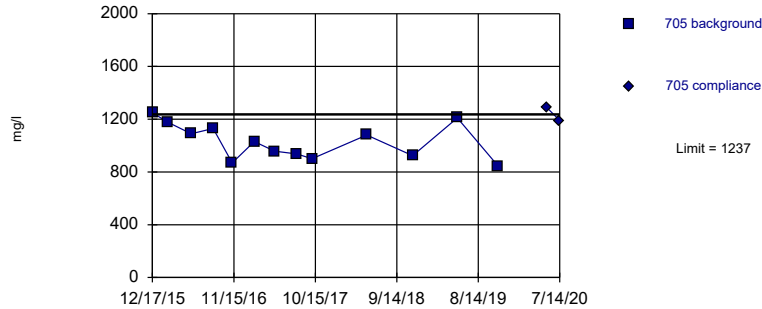


Background Data Summary: Mean=1148, Std. Dev.=42.06, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9093, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric

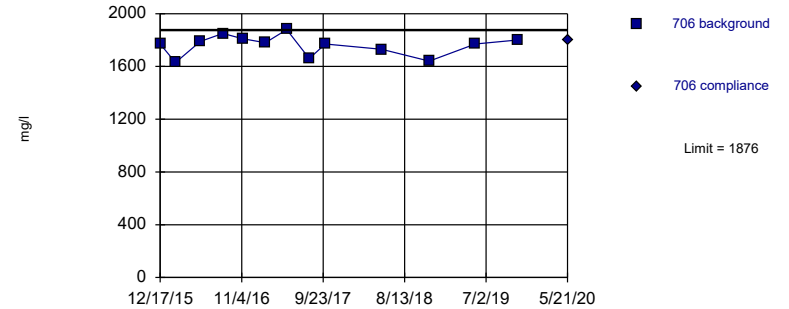


Background Data Summary: Mean=1031, Std. Dev.=136, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9422, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary: Mean=1760, Std. Dev.=76.59, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9212, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

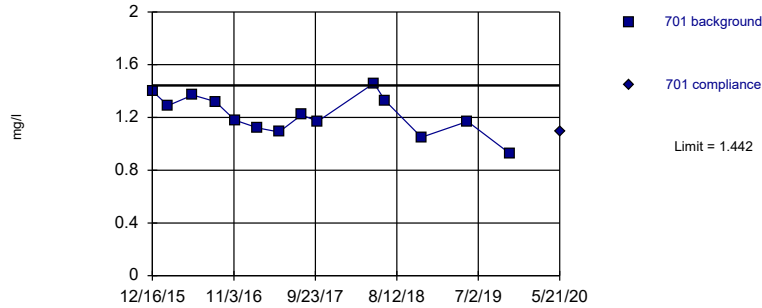
Constituent: Dissolved Solids Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	1350		1150		1250		1770	
2/16/2016	1280		1110		1180		1630	
5/23/2016	1460		1140					
5/24/2016					1090		1790	
8/22/2016	1500		1210		1130		1850	
11/7/2016	1540		1150					
11/8/2016					869		1810	
2/7/2017	1620		1200		1030		1780	
5/2/2017	1580		1230		958		1880	
7/31/2017	1520		1090		937		1660	
10/2/2017	1560		1120		901		1770	
5/14/2018	1480		1150		1080		1730	
11/19/2018	1560		1140		924		1640	
5/21/2019	1410		1120		1210		1770	
11/5/2019	1460		1110		843		1800	
5/21/2020		1170		1120		1290		1800
7/14/2020						1190	1st Verification Sample	



Within Limit

Prediction Limit  
Intrawell Parametric

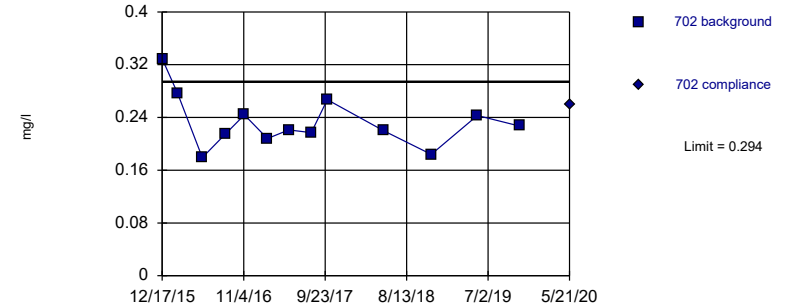


Background Data Summary: Mean=1.221, Std. Dev.=0.1489, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9799, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

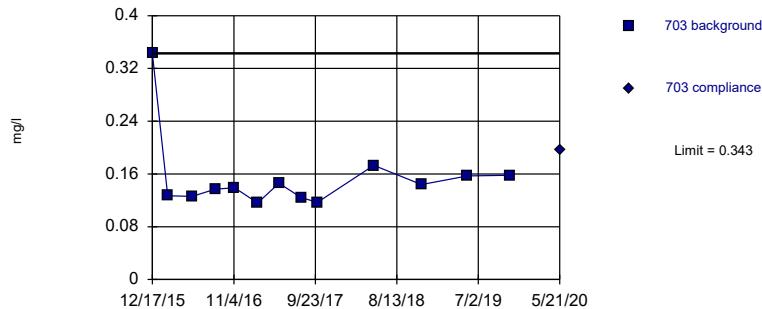


Background Data Summary: Mean=0.2331, Std. Dev.=0.04025, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9223, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Non-parametric

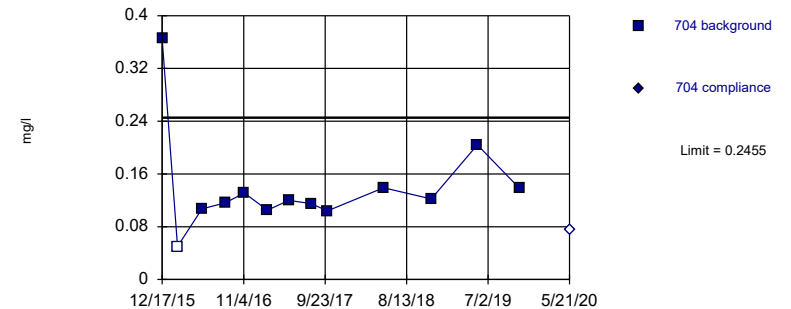


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=0.5073, Std. Dev.=0.07851, n=13, 7.692% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8187, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

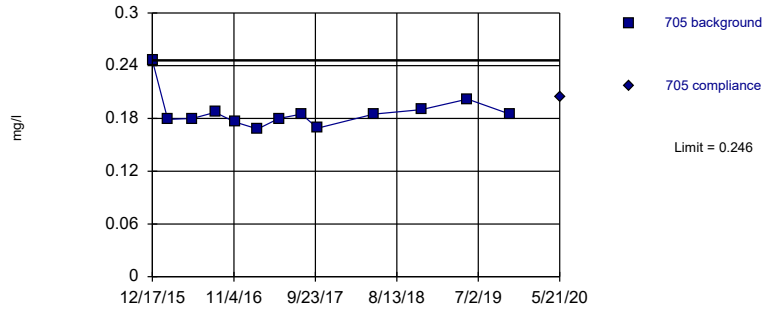
# Prediction Limit

Constituent: Fluoride Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	1.4							
12/17/2015			0.329		0.343		0.365	
2/16/2016	1.29		0.277		0.127		<0.1	
5/23/2016					0.126		0.107	
5/24/2016	1.37		0.179					
8/22/2016	1.32		0.214		0.137		0.116	
11/7/2016			0.244		0.139		0.131	
11/8/2016	1.18							
2/7/2017	1.12		0.208		0.116		0.105	
5/2/2017	1.09		0.221		0.146		0.12	
7/31/2017	1.22		0.217		0.124		0.115	
10/2/2017	1.17		0.267		0.117		0.104	
5/14/2018	1.46		0.22		0.173		0.139	
6/26/2018	1.33							
11/19/2018	1.05		0.184		0.144		0.122	
5/21/2019	1.17		0.243		0.157		0.204	
11/5/2019	0.926		0.227		0.158		0.138	
5/21/2020		1.09		0.26		0.197		<0.15

Within Limit

Prediction Limit  
Intrawell Non-parametric

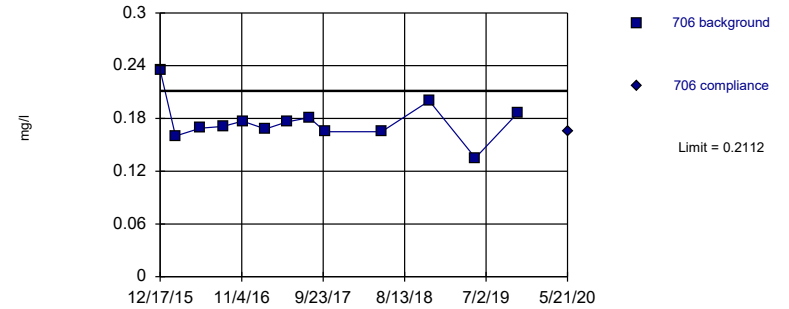


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

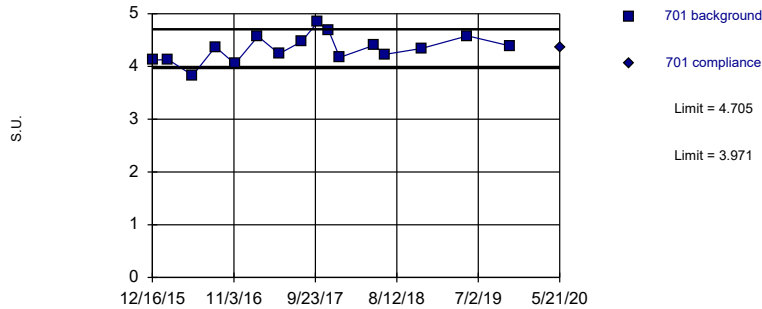


Background Data Summary: Mean=0.176, Std. Dev.=0.02327, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8899, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/8/2020 3:47 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric

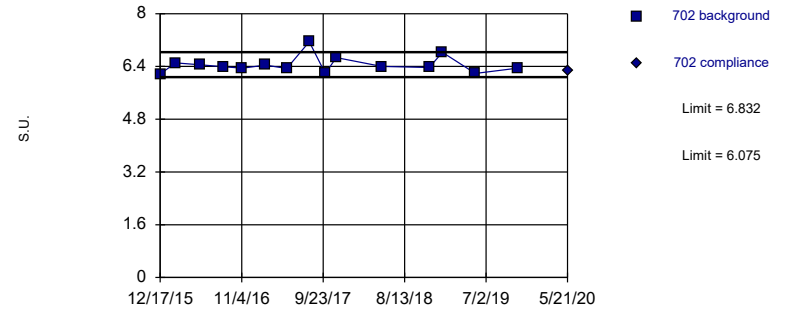


Background Data Summary: Mean=4.338, Std. Dev.=0.2566, n=16. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9907, critical = 0.844. Kappa = 1.43 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=6.453, Std. Dev.=0.2597, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.84, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

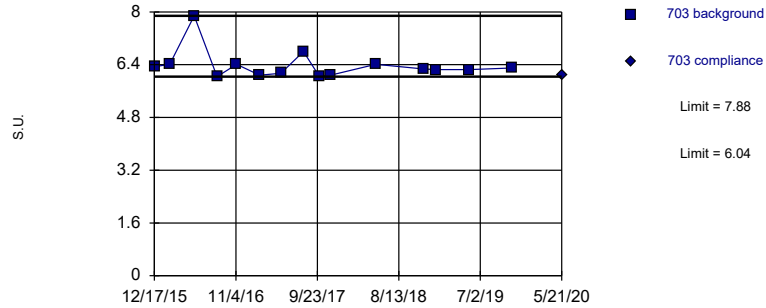
# Prediction Limit

Constituent: Fluoride, pH Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	705	705	706	706	701	701	702	702
12/16/2015					4.12			
12/17/2015	0.246		0.235				6.17	
2/16/2016	0.179		0.16		4.13		6.51	
5/24/2016	0.18		0.169		3.83		6.45	
8/22/2016	0.187		0.171		4.37		6.39	
11/7/2016							6.35	
11/8/2016	0.176		0.177		4.05			
2/7/2017	0.168		0.168		4.57		6.44	
5/2/2017	0.18		0.176		4.24		6.34	
7/31/2017	0.185		0.181		4.47		7.15	
10/2/2017	0.169		0.165		4.84		6.19	
11/15/2017					4.68		6.67	
12/29/2017					4.17			
5/14/2018	0.185		0.165		4.4		6.4	
6/26/2018					4.23			
11/19/2018	0.19		0.2		4.34		6.37	
1/10/2019							6.83	
5/21/2019	0.202		0.135		4.58		6.19	
11/5/2019	0.185		0.186		4.39		6.35	
5/21/2020		0.205		0.165		4.35		6.28

Within Limits

Prediction Limit  
Intrawell Non-parametric

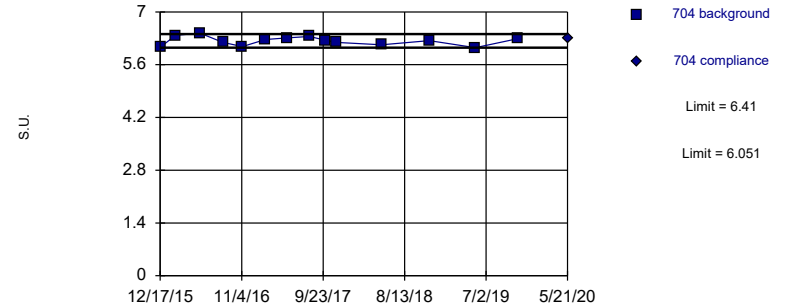


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 15 background values. Well-constituent pair annual alpha = 0.005248. Individual comparison alpha = 0.002625 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric

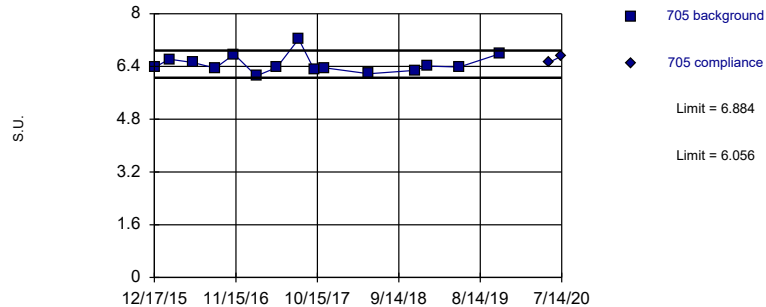


Background Data Summary: Mean=6.231, Std. Dev.=0.1209, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9649, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Parametric

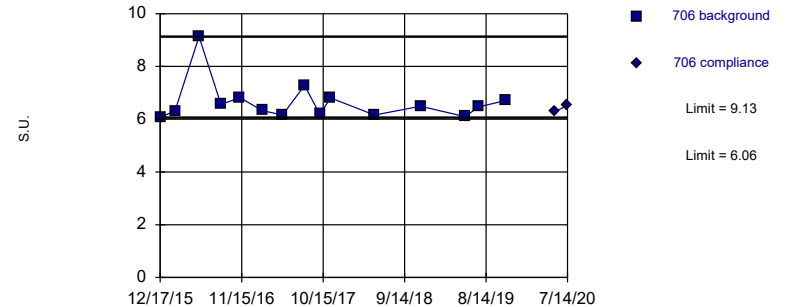


Background Data Summary: Mean=6.47, Std. Dev.=0.2839, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8628, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limits

Prediction Limit  
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 15 background values. Well-constituent pair annual alpha = 0.005248. Individual comparison alpha = 0.002625 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

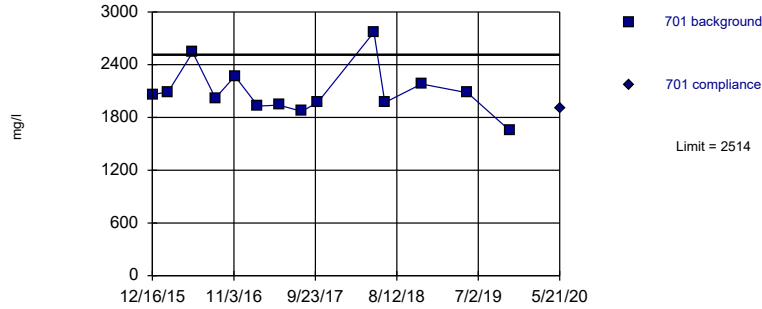
# Prediction Limit

Constituent: pH Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
 Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	703	703	704	704	705	705	706	706
12/17/2015	6.34		6.06		6.37		6.06	
2/16/2016	6.41		6.38		6.62		6.32	
5/23/2016	7.88		6.44					
5/24/2016					6.52		9.13	
8/22/2016	6.04		6.19		6.35		6.56	
11/7/2016	6.41		6.08					
11/8/2016					6.77		6.82	
2/7/2017	6.08		6.27		6.11		6.33	
5/2/2017	6.14		6.31		6.37		6.16	
7/31/2017	6.8		6.35		7.23		7.28	
10/2/2017	6.04		6.25		6.31		6.19	
11/15/2017	6.08		6.19		6.36		6.81	
5/14/2018	6.41		6.13		6.18		6.16	
11/19/2018	6.27		6.24		6.28		6.49	
1/10/2019	6.25				6.41			
5/21/2019	6.25		6.05		6.38		6.1	
7/15/2019							6.47	
11/5/2019	6.3		6.29		6.79		6.71	
5/21/2020		6.08		6.3		6.52		6.28
7/14/2020						6.71 Extra Sample		6.52 Extra Sample

Within Limit

Prediction Limit  
Intrawell Parametric

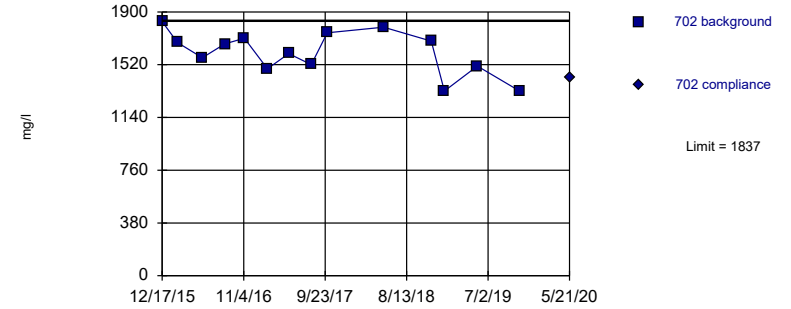


Background Data Summary: Mean=2096, Std. Dev.=281.4, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8971, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

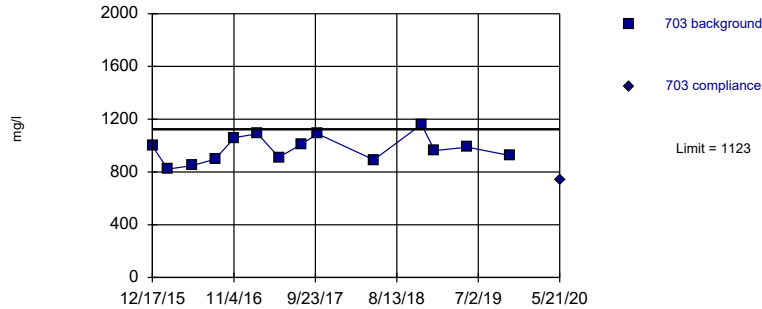


Background Data Summary: Mean=1605, Std. Dev.=155.9, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric

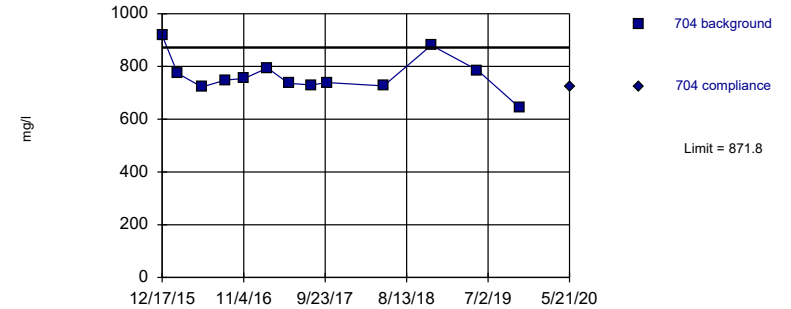


Background Data Summary: Mean=975, Std. Dev.=99.74, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9715, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Within Limit

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=765.5, Std. Dev.=70.2, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8974, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/8/2020 3:48 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

# Prediction Limit

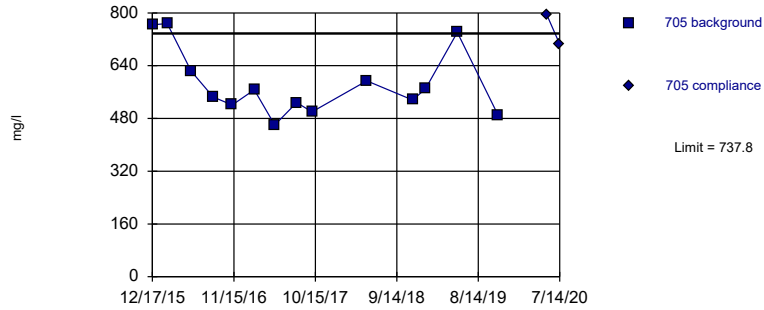
Constituent: Sulfate Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

	701	701	702	702	703	703	704	704
12/16/2015	2060							
12/17/2015			1830		996		918	
2/16/2016	2090		1680		821		774	
5/23/2016					848		722	
5/24/2016	2540		1570					
8/22/2016	2020		1670		897		748	
11/7/2016			1710		1060		755	
11/8/2016	2270							
2/7/2017	1930		1490		1090		794	
5/2/2017	1940		1600		911		736	
7/31/2017	1870		1520		1010		730	
10/2/2017	1970		1750		1090		739	
5/14/2018	2770		1790		892		726	
6/26/2018	1970							
11/19/2018	2180		1690		1160		880	
1/10/2019			1330		962			
5/21/2019	2080		1510		988		786	
11/5/2019	1650		1330		925		644	
5/21/2020		1910		1430		735		722



Within Limit

Prediction Limit  
Intrawell Parametric



# Prediction Limit

Constituent: Sulfate Analysis Run 9/8/2020 3:51 PM View: Ash CCR III  
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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	705	705	706	706
12/17/2015	764		1070	
2/16/2016	768		1130	
5/24/2016	623		1150	
8/22/2016	545		1140	
11/8/2016	521		1130	
2/7/2017	567		1110	
5/2/2017	460		1080	
7/31/2017	528		1100	
10/2/2017	500		1110	
5/14/2018	594		1030	
11/19/2018	536		1120	
1/10/2019	570			
5/21/2019	741		1280	
7/15/2019			1150	
11/5/2019	489		1040	
5/21/2020		796		1110
7/14/2020		705	1st Verification Sample	

# Prediction Limit

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 9/8/2020, 3:51 PM

<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>
Boron (mg/l)	701	0.2	n/a	5/21/2020	0.1ND	No	13	100	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/l)	702	0.211	n/a	5/21/2020	0.1ND	No	14	92.86	n/a	0.0016	NP Intra (NDs) 1 of 3
Boron (mg/l)	703	0.2	n/a	5/21/2020	0.1ND	No	13	100	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/l)	704	0.2	n/a	5/21/2020	0.1ND	No	13	100	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/l)	705	0.23	n/a	5/21/2020	0.1ND	No	13	84.62	n/a	0.001886	NP Intra (NDs) 1 of 3
Boron (mg/l)	706	0.2618	n/a	7/14/2020	0.228	No	14	14.29	x^3	0.00188	Param Intra 1 of 3
Calcium (mg/l)	701	522.3	n/a	5/21/2020	432	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	702	538.1	n/a	5/21/2020	423	No	15	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	703	258.2	n/a	5/21/2020	192	No	15	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	704	172	n/a	5/21/2020	156	No	14	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	705	166.8	n/a	7/14/2020	163	No	15	0	No	0.00188	Param Intra 1 of 3
Calcium (mg/l)	706	310.4	n/a	5/21/2020	270	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	701	656.2	n/a	5/21/2020	496	No	14	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	702	392.5	n/a	5/21/2020	238	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	703	23.03	n/a	5/21/2020	8.16	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	704	10.7	n/a	5/21/2020	3.03	No	14	0	n/a	0.0016	NP Intra (normality) ...
Chloride (mg/l)	705	14.68	n/a	5/21/2020	10.4	No	15	0	No	0.00188	Param Intra 1 of 3
Chloride (mg/l)	706	31.01	n/a	5/21/2020	29.5	No	15	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	701	3887	n/a	5/21/2020	3540	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	702	3428	n/a	5/21/2020	2780	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	703	1631	n/a	5/21/2020	1170	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	704	1211	n/a	5/21/2020	1120	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	705	1237	n/a	7/14/2020	1190	No	13	0	No	0.00188	Param Intra 1 of 3
Dissolved Solids (mg/l)	706	1876	n/a	5/21/2020	1800	No	13	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	701	1.442	n/a	5/21/2020	1.09	No	14	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	702	0.294	n/a	5/21/2020	0.26	No	13	0	No	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	703	0.343	n/a	5/21/2020	0.197	No	13	0	n/a	0.001886	NP Intra (normality) ...
Fluoride (mg/l)	704	0.2455	n/a	5/21/2020	0.075ND	No	13	7.692	x^(1/3)	0.00188	Param Intra 1 of 3
Fluoride (mg/l)	705	0.246	n/a	5/21/2020	0.205	No	13	0	n/a	0.001886	NP Intra (normality) ...
Fluoride (mg/l)	706	0.2112	n/a	5/21/2020	0.165	No	13	0	No	0.00188	Param Intra 1 of 3
pH (S.U.)	701	4.705	3.971	5/21/2020	4.35	No	16	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	702	6.832	6.075	5/21/2020	6.28	No	15	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	703	7.88	6.04	5/21/2020	6.08	No	15	0	n/a	0.002625	NP Intra (normality) ...
pH (S.U.)	704	6.41	6.051	5/21/2020	6.3	No	14	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	705	6.884	6.056	7/14/2020	6.71	No	15	0	No	0.000...	Param Intra 1 of 3
pH (S.U.)	706	9.13	6.06	7/14/2020	6.52	No	15	0	n/a	0.002625	NP Intra (normality) ...
Sulfate (mg/l)	701	2514	n/a	5/21/2020	1910	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	702	1837	n/a	5/21/2020	1430	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	703	1123	n/a	5/21/2020	735	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	704	871.8	n/a	5/21/2020	722	No	13	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	705	737.8	n/a	7/14/2020	705	No	14	0	No	0.00188	Param Intra 1 of 3
Sulfate (mg/l)	706	1207	n/a	5/21/2020	1110	No	14	0	No	0.00188	Param Intra 1 of 3

Montrose Generating Station  
Determination of Statistically Significant Increases  
North and South Ash Impoundments  
September 28, 2020

## **ATTACHMENT 2**

### **Sanitas™ Configuration Settings**

Exclude data flags:

Data Reading Options

- Individual Observations
- Mean of Each:  Month
- Median of Each:  Season

Automatically Process Resamples...

- Black and White Output
- Four Plots Per Page
  - Always Combine Data Pages...
  - Include Tick Marks on Data Page
  - Use Constituent Name for Graph Title
- Draw Border Around Text Reports and Data Pages
- Enlarge/Reduce Fonts (Graphs):
- Enlarge/Reduce Fonts (Data/Text Reports):
- Wide Margins (on reports without explicit setting)
- Use CAS# (Not Const. Name)
- Truncate File Names to  Characters
- Include Limit Lines when found in Database...
- Show Deselected Data on Time Series  ▾
- Show Deselected Data on all Data Pages  ▾

- Prompt to Overwrite/Append Summary Tables
- Round Limits to  Sig. Digits (when not set in data file)
- User-Set Scale
- Indicate Background Data
- Show Exact Dates
- Thick Plot Lines

Zoom Factor:  ▾

- Output Decimal Precision
- Less Precision
  - Normal Precision
  - More Precision

Store Print Jobs in Multiple Constituent Mode

Printer:  ▾

Use Modified Alpha...

Test Residuals For Normality (Parametric test only)  at Alpha = 0.01

Continue Parametric if Unable to Normalize

Transformation (Parametric test only)

- Use Ladder of Powers
- Natural Log or No Transformation
- Never Transform
- Use Specific Transformation:

- Use Best W Statistic
- Plot Transformed Values

Use Non-Parametric Test (Sen's Slope/Mann-Kendall) when Non-Detects Percent >

Include  % Confidence Interval around Trend Line

Automatically Remove Outliers (Parametric test only)

Note: there is no "Always Use Non-Parametric" checkbox on this tab because, for consistency with prior versions, Sen's Slope / Mann-Kendall (the non-parametric alternative) is available as a report in its own right, under Analysis->Intrawell->Trend.

Test for Normality using Shapiro-Wilk/Francia at Alpha = 0.01

Use Non-Parametric Test when Non-Detects Percent > 50

Use Aitchison's Adjustment when Non-Detects Percent > 15

Optional Further Refinement: Use Aitchison's when NDs % > 50

Use Poisson Prediction Limit when Non-Detects Percent > 90

Transformation

Use Ladder of Powers

Natural Log or No Transformation

Never Transform

Use Specific Transformation: Natural Log

Use Best W Statistic

Plot Transformed Values

Deseasonalize (Intra- and InterWell)

If Seasonality Is Detected

If Seasonality Is Detected Or Insufficient to Test

Always (When Sufficient Data)  Never

Always Use Non-Parametric

Facility

Statistical Evaluations per Year:

Constituents Analyzed:

Downgradient (Compliance) Wells:

Sampling Plan

Comparing Individual Observations

1 of 1  1 of 2  1 of 3  1 of 4

2 of 4 ("Modified California")

IntraWell Other

Stop if Background Trend Detected at Alpha = 0.05

Plot Background Data

Override Standard Deviation:

Override DF:  Override Kappa:

Automatically Remove Background Outliers

2-Tailed Test Mode...

Show Deselected Data Lighter

Non-Parametric Limit = Highest Background Value

Non-Parametric Limit when 100% Non-Detects:

Highest/Second Highest Background Value

Most Recent PQL if available, or MDL

Most Recent Background Value (subst. method)



Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney

- Use Modified Alpha...
- 2-Tailed Test Mode...
- Combine Background Wells on Mann-Whitney...

Outlier Tests

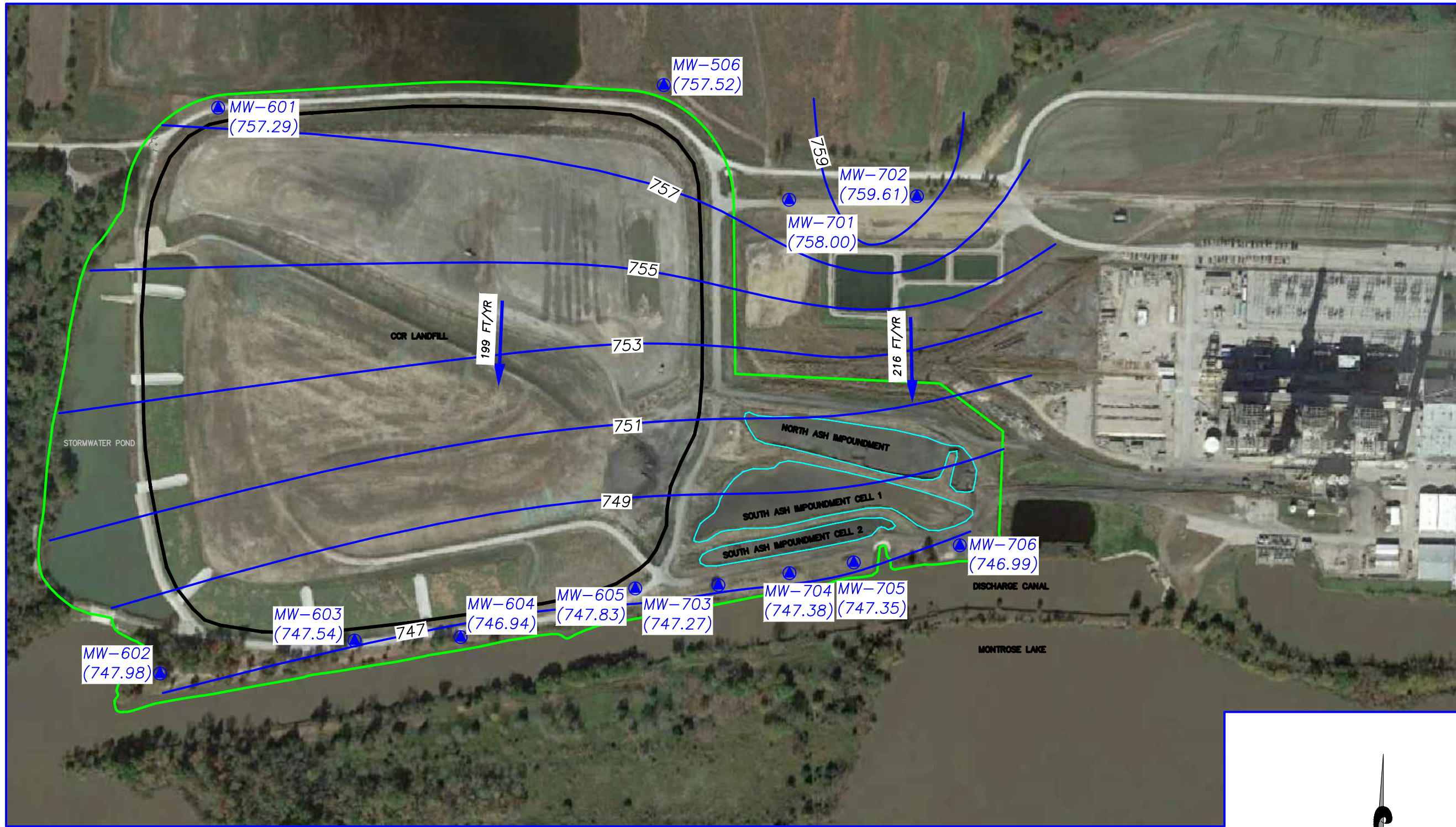
- EPA 1989 Outlier Screening (fixed alpha of 0.05)
- Dixon's at  $\alpha=$   or if n >  Rosner's at  $\alpha=$    Use EPA Screening to establish Suspected Outliers
- Tukey's Outlier Screening, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- Test For Normality using Shapiro-Wilk/Francia at Alpha = 
  - Stop if Non-Normal
  - Continue with Parametric Test if Non-Normal
  - Tukey's if Non-Normal, with IQR Multiplier =   Use Ladder of Powers to achieve Best W Stat
- No Outlier If Less Than  Times Median
- Apply Rules found in Ohio Guidance Document 0715
- Combine Background Wells on the Outlier Report...

Piper, Stiff Diagram

- Combine Wells  Label Constituents
- Combine Dates  Label Axes
- Use Default Constituent Names  Note Cation-Anion Balance (Piper only)
- Use Constituent Definition File

Jared Morrison  
December 20, 2022

**ATTACHMENT 3**  
**Groundwater Potentiometric Surface Maps**

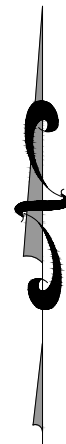


**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 (757.17) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- ← GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FT/YR)

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. WATER LEVEL MEASUREMENTS COMPLETED ON MAY 21, 2020.



REV.	DATE	CK.	BY
1			
2			
3			
4			
5			

SHEET TITLE  
**POTENTIOMETRIC SURFACE MAP CCR LANDFILL AND ASH IMPOUNDMENT (MAY 2020)**

PROJECT TITLE  
**2020 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ADDENDUM**

CLIENT  
**EVERGY METRO, INC.  
 MONTROSE GENERATING STATION  
 MONTROSE, MISSOURI**

**SCS ENGINEERS**  
 ENVIRONMENTAL CONSULTANTS AND CONTRACTORS  
 8575 W. 110th St., Ste. 100  
 Overland Park, Kansas 66210  
 PH: (913) 681-0030 FAX: (913) 681-0012

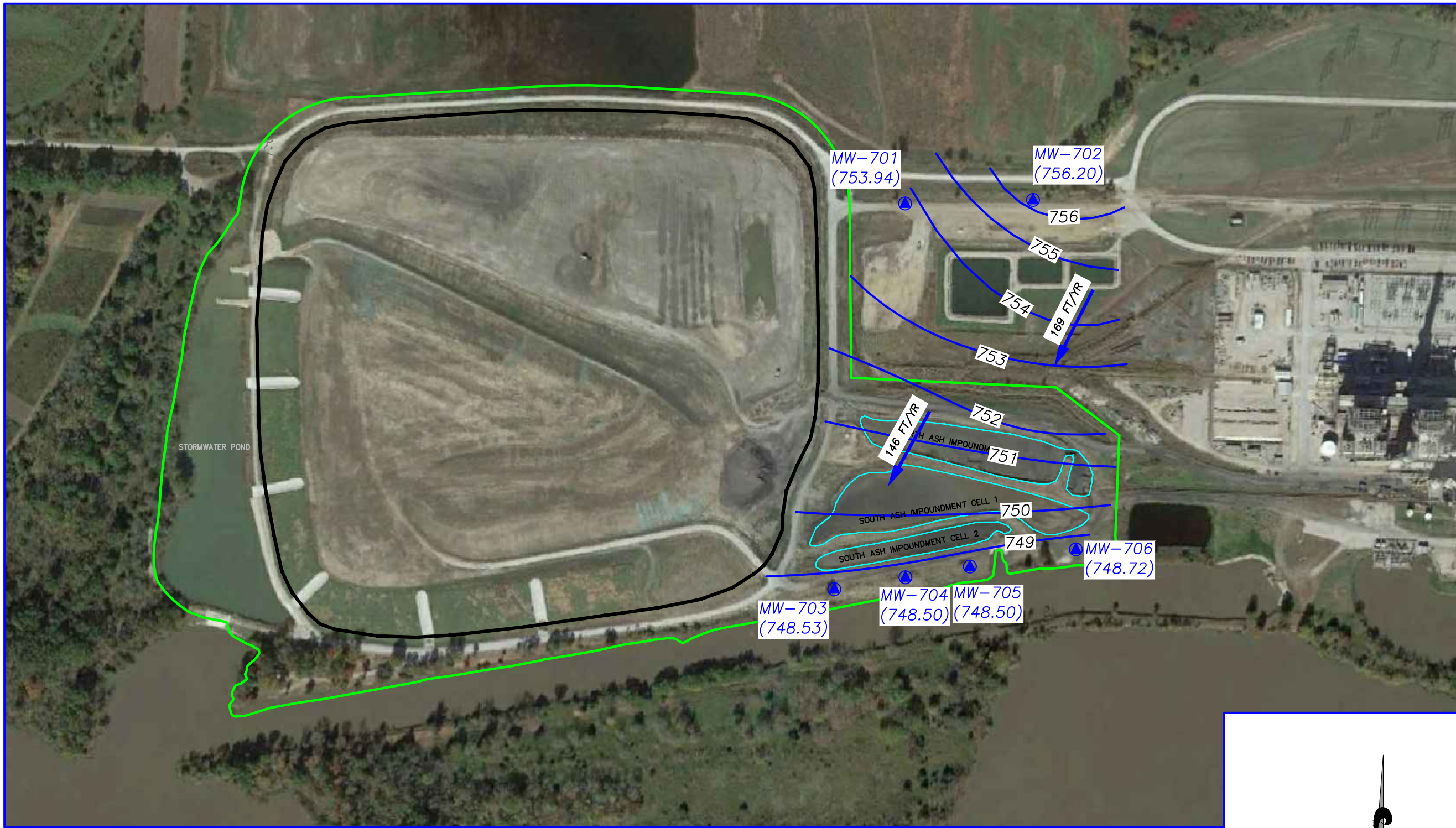
PROJ. NO. 27213168.20  
 DESK. BY: TGW  
 CHK. BY: JRR  
 O/A RW BY: JRR  
 PROJ. MGR. JRF

CADD FILE:  
 27213168.20\_FIG2\_MAY20.DWG

DATE:  
 12/19/2022

FIGURE NO.  
**2**

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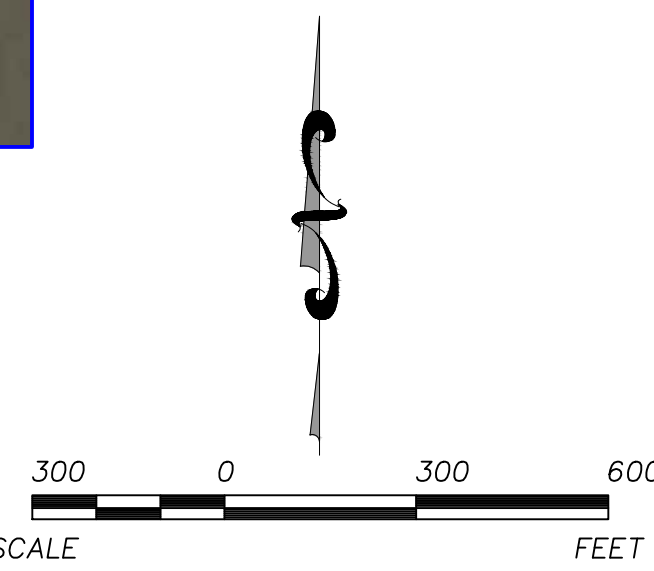


**LEGEND:**

- PERMITTED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE)
- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)
- ▲ MW-506 (757.17) CCR GROUNDWATER MONITORING WELL SYSTEM
- ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)
- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT)
- GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FT/YR)

**NOTES:**

1. HORIZONTAL DATUM: MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE (NAD 83)
2. VERTICAL DATUM: NAVD 88
3. GOOGLE EARTH IMAGE DATED MARCH 2020.
4. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM.
5. WATER LEVEL MEASUREMENTS COMPLETED ON JULY 27, 2020.



	REV.	DATE		CK.	BY
	△	-	-	-	-
SHEET TITLE			POTENTIOMETRIC SURFACE MAP ASH IMPOUNDMENT (JULY 2020)		
PROJECT TITLE			2020 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ADDENDUM		
CLIENT <b>EVERGY METRO, INC.</b> MONTROSE GENERATING STATION MONTROSE, MISSOURI					
SCS ENGINEERS ENVIRONMENTAL CONSULTANTS AND CONTRACTORS 8575 W. 110th St. Ste. 100 Overland Park, Kansas 66210 PH: (913) 681-0030 FAX: (913) 681-0012 PROJ. NO. 27213168.20 DESK. BY: TGW CHK. BY: JRR O/A RW BY: JRR PROJ. MGR: JRF					
CADD FILE: 27213168.20_AA1720.DWG					
DATE: 12/19/2022					
FIGURE NO. <b>3</b>					

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