2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

CCR LANDFILL MONTROSE GENERATING STATION CLINTON, MISSOURI

Presented To: Evergy Metro, Inc.

SCS ENGINEERS

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

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CERTIFICATIONS

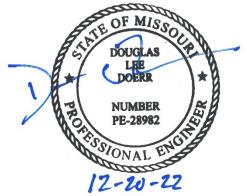
I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2020 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Montrose Generating Station was prepared by me or under my direct supervision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



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 CCR Landfill at the Montrose Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



Douglas L. Doerr, P.E.

SCS Engineers

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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- C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020).
- Addendum 1 2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1

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 CCR Landfill 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 Landfill was 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 Landfill was operating under a detection monitoring program in compliance with § 257.94.

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

Monitoring Event	Monitoring Well	Constituent	ASD
Fall 2019	MW-605	Chloride	Successful
Spring 2020	MW-605	Chloride	Successful

(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, 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 CCR Landfill and all background (or upgradient) and downgradient monitoring wells with identification numbers for the CCR Landfill 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 CCR Landfill 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 with Supplemental Appendix IV Detection Monitoring Results), and **Table 2** (Detection Monitoring Field Measurements). These tables include Fall 2019 semiannual detection monitoring data, verification sample data, and supplementary Appendix IV sample data; and, the initial Fall 2020 semiannual detection 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.

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 is in detection monitoring.

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 a successful alternative source demonstration for the Fall 2019 semiannual detection monitoring sampling and analysis event,
- e. 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,
- f. completion of the statistical evaluation of the Spring 2020 semiannual detection monitoring sampling and analysis event per the certified statistical method,
- g. completion of a successful alternative source demonstration for the Spring 2020 semiannual detection monitoring sampling and analysis event, and
- h. initiation of the Fall 2020 semiannual detection monitoring sampling and analysis event.

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 verification sampling and data analysis, and the statistical evaluation of Fall 2020 detection monitoring sampling and analysis event. Semiannual Spring and Fall 2021 groundwater sampling and analysis. Completion of the statistical evaluation of the Spring 2021 detection monitoring sampling and analysis event, and, if required, alternative source demonstration(s).

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 $\S 257.90(e)$.

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.

The following demonstration reports are included as Appendix C:

- C.1 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report November 2019 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (June 2020).
- C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020).

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 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 CCR Landfill. No warranties, express or implied, are intended or made.

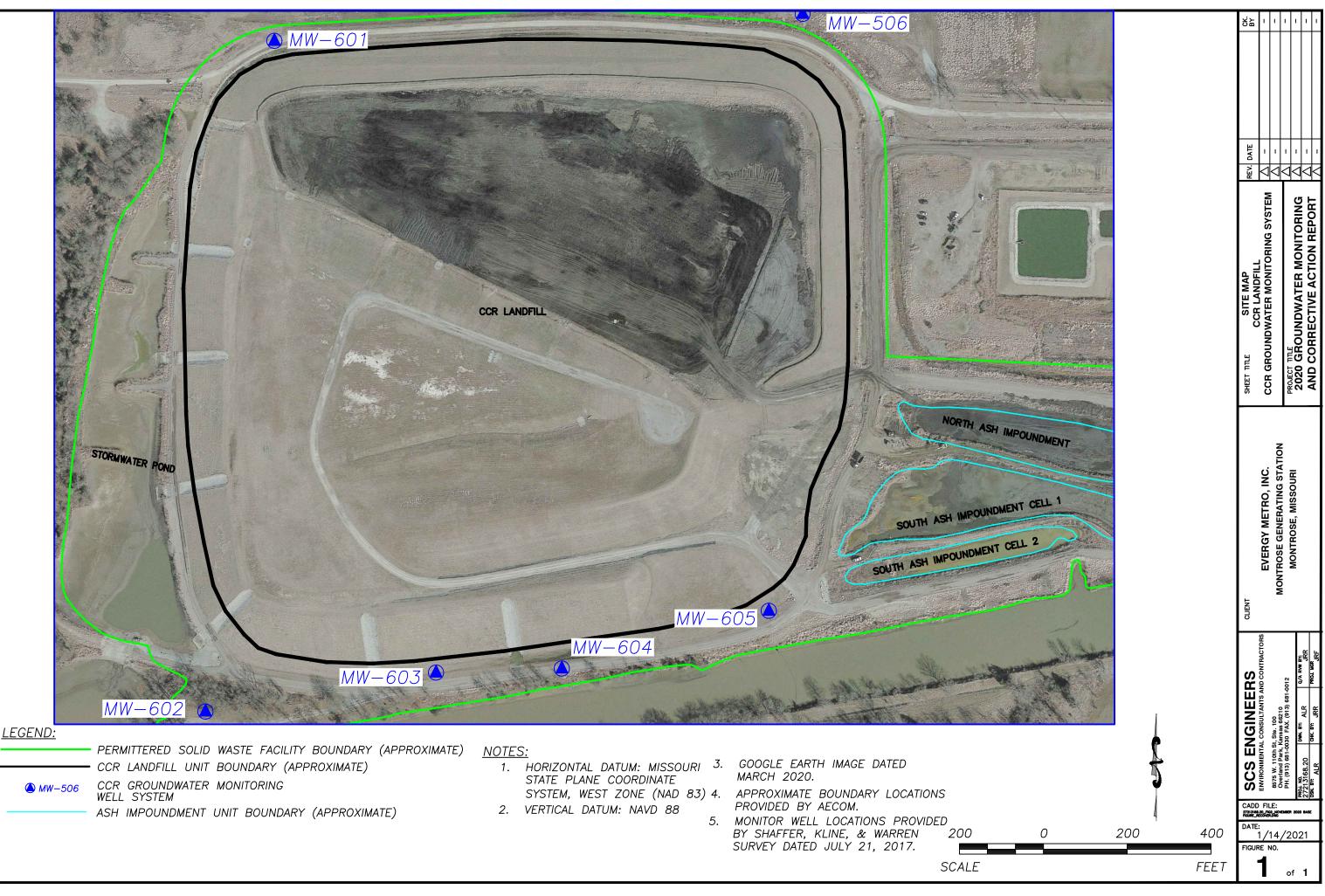
APPENDIX A

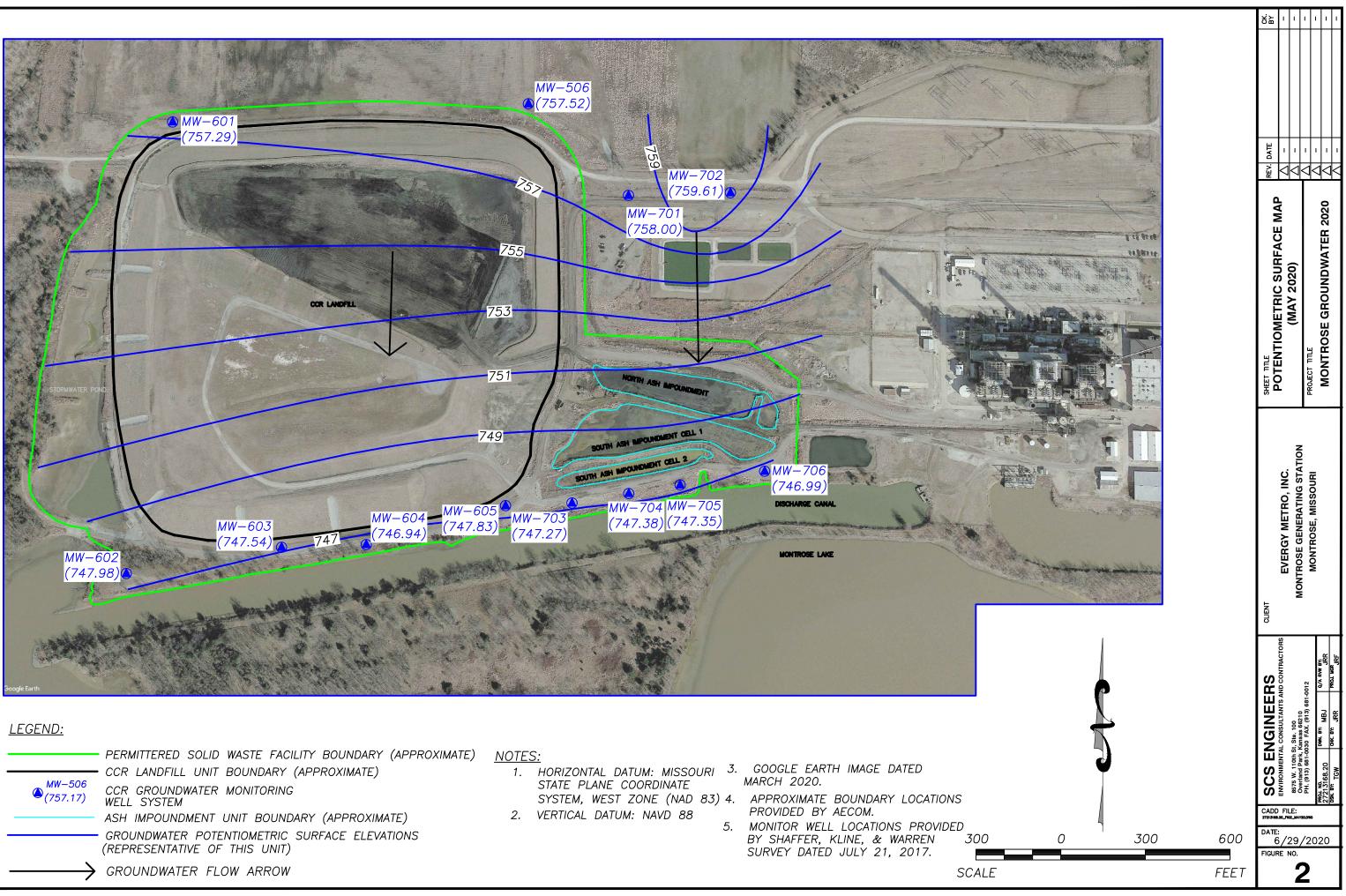
FIGURES

Figure 1: Site Map

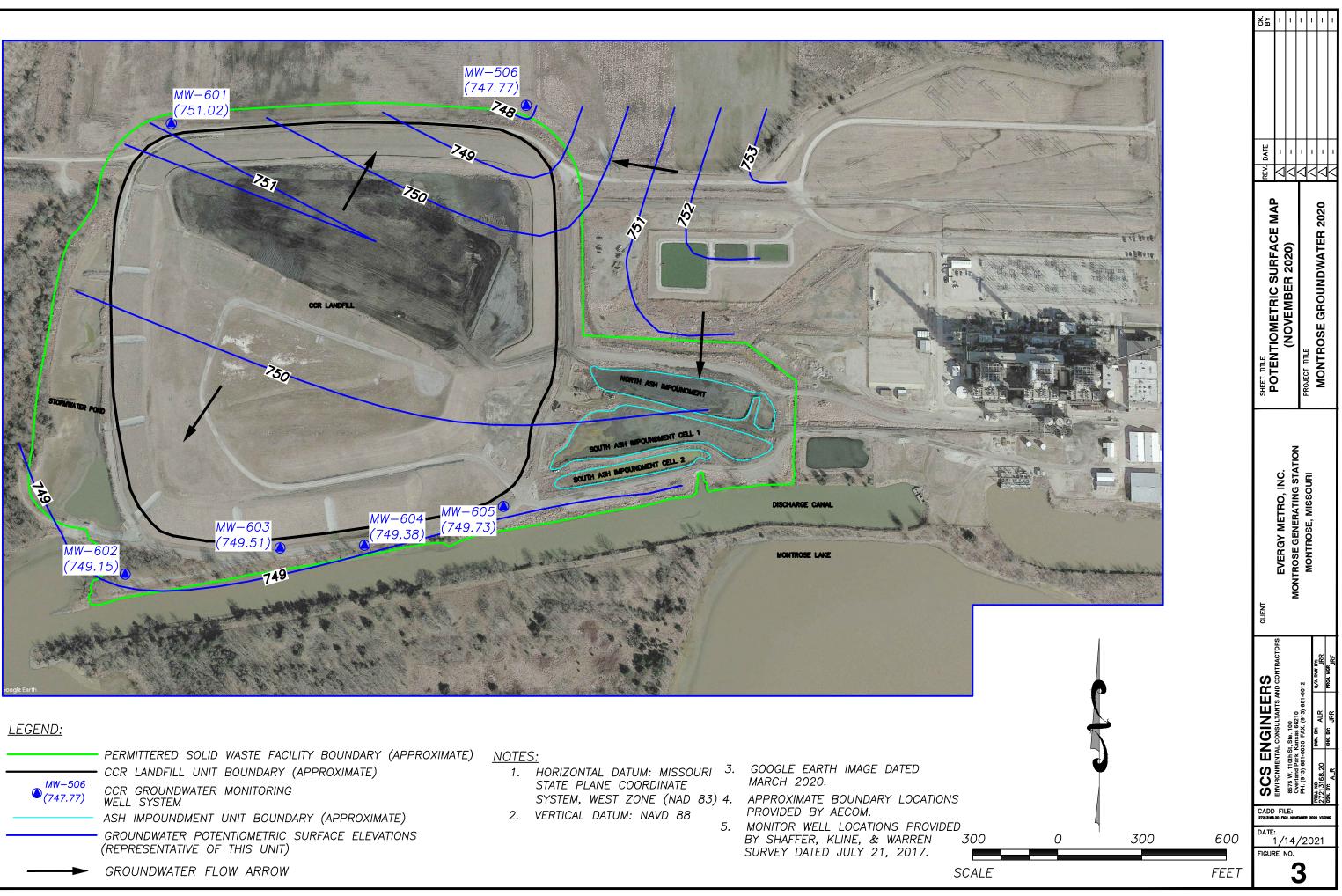
Figure 2: Potentiometric Surface Map (May 2020)

Figure 3: Potentiometric Surface Map (November 2020)





_	₩₩-506 (757.17)	 PERMITTERED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE) CCR LANDFILL UNIT BOUNDARY (APPROXIMATE) CCR GROUNDWATER MONITORING WELL SYSTEM ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE) GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT) 	<u>NOTE</u> 1. 2.	HORIZONTAL DATUM: MISSOURI 3. GOOGLE EARTH IMAGE DATED STATE PLANE COORDINATE MARCH 2020. SYSTEM, WEST ZONE (NAD 83) 4. APPROXIMATE BOUNDARY LOCATIC VERTICAL DATUM: NAVD 88 PROVIDED BY AECOM. 5. MONITOR WELL LOCATIONS PROVIL BY SHAFFER, KLINE, & WARREN	
_	\longrightarrow	(REPRESENTATIVE OF THIS UNIT) GROUNDWATER FLOW ARROW		SURVEY DATED JULY 21, 2017.	S



		NOTEC		
	- CCR LANDFILL UNIT BOUNDARY (APPROXIMATE)		: HORIZONTAL DATUM: MISSOURI ^{3.} STATE PLANE COORDINATE	GOOGLE EARTH IMAGE DATED MARCH 2020.
₩₩-506 (747.77)	– ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE)		SYSTEM, WEST ZONE (NAD 83) 4. VERTICAL DATUM: NAVD 88	APPROXIMATE BOUNDARY LOCATIO PROVIDED BY AECOM. MONITOR WELL LOCATIONS PROVID
	 GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT) 			BY SHAFFER, KLINE, & WARREN SURVEY DATED JULY 21, 2017.
>	- GROUNDWATER FLOW ARROW			

APPENDIX B

TABLES

Table 1: Appendix III with Supplemental Appendix IV Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

Table 1CCR LandfillAppendix III with Supplemental Appendix IV Detection Monitoring ResultsEvergy Montrose Generating Station

				Apper	ndix III Constit	tuents									Арр	endix IV Cons	tituents						
Well Number	Sample Date	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	рН (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-506	5/21/2020	<0.200	343	69.3	<0.150	5.53	1780	2800	<0.00400	<0.00200	0.0101	<0.00200	<0.00100	<0.0100	<0.0100	<0.150	<0.00500	0.205	<0.000200	<0.00500	0.00670	<0.00200	1.21
MW-506	11/10/2020	<0.200	367	84.5	<0.150	5.44	1820	2620															
MW-601	1/14/2020					*5.51																	
MW-601	5/21/2020	<0.200	478	53.8	0.462	5.42	3230	4680	<0.00400	<0.00200	0.00973	<0.00200	0.00138	<0.0100	<0.0100	0.462	<0.00500	0.286	<0.000200	<0.00500	0.00499	<0.00200	0.618
MW-601	11/10/2020	<0.200	479	33.4	0.336	5.66	2860	4280															
MW-602	5/21/2020	4.27	313	3.99	<0.150	5.79	1270	1800	<0.00400	0.00524	0.0200	<0.00200	<0.00100	<0.0100	0.110	<0.150	<0.00500	0.0859	<0.000200	<0.00500	<0.00200	<0.00200	1.98
MW-602	11/10/2020	4.18	313	3.77	<0.150	5.69	1080	1800															
MW-603	5/21/2020	5.37	397	5.93	0.642	4.50	2140	2840	<0.00400	<0.00200	0.00907	<0.00200	0.00352	<0.0100	0.0357	0.642	<0.00500	0.131	<0.000200	<0.00500	0.0277	<0.00200	0.77
MW-603	11/10/2020	5.69	410	6.27	0.516	4.55	2090	2850															
MW-604	5/21/2020	3.76	440	13.3	0.489	5.54	1920	2780	<0.00400	<0.00200	0.0145	<0.00200	0.00104	<0.0100	<0.0100	0.489	<0.00500	0.106	<0.000200	<0.00500	<0.00200	<0.00200	0.255
MW-604	11/10/2020	4.82	436	14.5	0.409	5.58	1740	2790															
MW-605	1/14/2020			*60.5		**5.66																	
MW-605	2/3/2020			*59.8		**5.64																	
MW-605	5/21/2020	1.45	411	60.2	0.219	5.42	1940	2740	<0.00400	<0.00200	0.00958	<0.00200	0.00225	<0.0100	0.119	0.219	<0.00500	0.132	<0.000200	<0.00500	<0.00200	<0.00200	1.05
MW-605	7/14/2020			*62.1		**5.66																	
MW-605	8/26/2020			*61.6		**5.62																	
MW-605	11/10/2020	1.47	395	59.7	0.182	5.58	1790	2730															

* 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 - miligrams per liter

pCi/L - picocuries per liter

S.U. - Standard Units

--- Not Sampled

Table 2CCR LandfillDetection Monitoring Field MeasurementsEvergy Montrose Generating Station

Well Number	Sample Date	рН (S.U.)	Specific Conductivity (μS)	Temperature (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-506	5/21/2020	5.53	2840	17.91	20.3	217	0.00	4.05	757.52
MW-506	11/10/2020	5.44	3200	16.22	0.0	198	0.78	13.80	747.77
MW-601	1/14/2020	*5.51	4960	13.48	23.6	267	0.00	8.51	756.60
MW-601	5/21/2020	5.42	4500	17.24	16.5	182	0.00	7.82	757.29
MW-601	11/10/2020	5.66	3940	16.28	18.3	224	0.79	14.09	751.02
MW-602	5/21/2020	5.79	2050	16.28	27.1	116	0.00	7.88	747.98
MW-602	11/10/2020	5.69	1810	15.30	19.8	87	0.00	6.71	749.15
MW-603	5/21/2020	4.50	3050	17.74	0.0	285	0.00	16.10	747.54
MW-603	11/10/2020	4.55	3030	15.53	1.4	327	0.73	14.13	749.51
MW-604	5/21/2020	5.54	2960	17.17	0.0	208	0.00	16.45	746.94
MW-604	11/10/2020	5.58	2640	15.40	0.0	90	0.00	14.01	749.38
MW-605	1/14/2020	**5.66	3160	15.22	0.0	258	0.00	12.49	751.62
MW-605	2/3/2020	**5.64	3110	16.98	0.0	135	0.00	12.74	751.37
MW-605	5/21/2020	5.42	3000	18.54	0.0	217	0.00	16.28	747.83
MW-605	7/14/2020	**5.66	2850	19.43	0.0	201	1.50	13.98	750.13
MW-605	8/26/2020	**5.62	2820	22.07	0.0	202	0.60	13.57	750.54
MW-605	11/10/2020	5.58	2850	16.01	0.0	279	0.47	14.38	749.73

* 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

APPENDIX C

ALTERNATIVE SOURCE DEMONSTRATIONS

- C.1 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report November 2019 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (June 2020)
- C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020)

C.1 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report November 2019 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (June 2020)

CCR LANDFILL GROUNDWATER MONITORING ALTERNATIVE SOURCE DEMONSTRATION REPORT NOVEMBER 2019 GROUNDWATER MONITORING EVENT

CCR LANDFILL MONTROSE GENERATING STATION CLINTON, MISSOURI

Presented To:

Evergy Metro, Inc.

Presented By:

SCS ENGINEERS

8575 West 110th Street, Suite 100

Overland Park, Kansas 66210

June 2020

File No. 27213168.20

CERTIFICATIONS

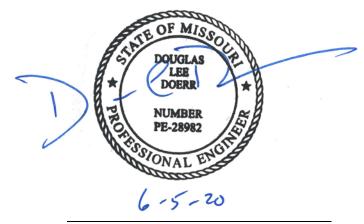
I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify the accuracy of the information in the CCR Groundwater Monitoring Alternative Source Demonstration Report for the CCR Landfill at the Montrose Generating Station. The Alternative Source Demonstration was prepared by me or under my direct supervision in accordance with generally accepted hydrogeological practices and the local standard of care.



John R. Rockhold, R.G.

SCS Engineers

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Douglas L. Doerr, P.E.

SCS Engineers

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Appendix B	Piper Diagram Plots and Analytical Results
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1 REGULATORY FRAMEWORK

Certain owners or operators of Coal Combustion Residuals (CCR) units are required to complete groundwater monitoring activities to evaluate whether a release from the unit has occurred. Included in the activities is the completion of a statistical analysis of the groundwater quality data as prescribed in § 257.93(h) of the CCR Final Rule. If the initial analysis indicates a statistically significant increase (SSI) over background levels, the owner or operator may perform an alternative source demonstration (ASD). In accordance with § 257.94(e)(2), the owner or operator of the CCR unit may demonstrate that a source other than the CCR unit caused the 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. The owner or operator must complete the written demonstration within 90 days of detecting a SSI over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under § 257.94. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. 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.

2 STATISTICAL RESULTS

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill 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. Two rounds of verification sampling were conducted for certain constituents on January 14, 2020 and February 3, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

Constituent/Monitoring Well	*UPL	Observation November 5, 2019	1st Verification January 14, 2020	2nd Verification February 3, 2020
Chloride				
MW-605	55.57	59.1	60.5	59.8

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified a SSI above the background prediction limit for chloride in monitoring well MW-605.

3 ALTERNATIVE SOURCE DEMONSTRATION

An Alternative Source Demonstration (ASD) is a means to provide supporting lines of evidence that something other than a release from a regulated CCR unit caused an SSI. For the above identified SSI for the CCR Landfill at the Montrose Generating Station, there are multiple lines of supporting evidence to indicate the above SSI was not caused by a release from the CCR Landfill. Select multiple lines of supporting evidence are described as follows.

3.1 BOX AND WHISKERS PLOTS

A commonly accepted method to demonstrate and visualize the distribution of data in a given data set is to construct box and whiskers plots. The basic box plotted graphically locates the median, 25th and 75th percentiles of the data set; the "whiskers" extend to the minimum and maximum values of the data set. The range between the ends of a box plot represents the Interquartile Range, which can be used as an estimate of spread or variability. The mean is denoted by a "+".

When comparing multiple wells or well groups, box plots for each well can be lined up on the same axis to roughly compare the variability in each well. This may be used as an exploratory screening for the test of homogeneity of variance across multiple wells.

An SSI was identified in well MW-605 for chloride. Therefore, box and whiskers plots for chloride in MW-605 and the two upgradient wells MW-506 and MW-601 were prepared to allow comparison of the chloride concentrations between wells. The comparison between wells indicates the chloride concentrations in well MW-605 are within or below the range of chloride in upgradient wells. This demonstrates that a source other than the CCR Landfill caused the SSI in chloride over background levels, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Box and whisker plots are provided in **Appendix A**.

3.2 PIPER DIAGRAM PLOTS

Piper diagrams are a form of tri-linear diagram, and a widely-accepted method to provide a visual representation of the ion concentration of groundwater. Piper diagrams portray water compositions and facilitate the interpretation and presentation of chemical analyses. They may be used to visually compare the chemical composition of water quality across wells, and aid in determining whether the waters are similar or dis-similar, and can over time indicate whether the waters are mixing.

A piper diagram has two triangular plots on the right and left side of a 4-sided center field. The three major cations are plotted in the left triangle and anions in the right. Each of the three cation/anion variables, in milliequivalents, is divided by the sum of the three values, to produce a percent of total cation/anions. These percentages determine the location of the associated symbol. The data points in the center field are located by extending the points in the lower triangles to the point of intersection. In order for a piper diagram to be produced, the selected data file must contain the following constituents: Sodium (Na), Potassium (K), Calcium (Ca), Magnesium (Mg), Chloride (Cl), Sulfate (SO4), Carbonate (CO3), and Bicarbonate (HCO3).

A piper diagram generated for MW-605 and landfill leachate is provided in **Appendix B** along with the analytical results and indicates the groundwater from this well does not exhibit the same geochemical

characteristics as the leachate. The groundwater and the leachate plot in totally different hydrochemical facies indicating there is no mixing of the two types of water (groundwater and leachate). This demonstrates that a source other than the CCR Landfill caused the SSI over background levels for chloride or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

3.3 TIME SERIES PLOTS

Time series plots provide a graphical method to view changes in data at a particular well (monitoring point) or wells over time. Time series plots display the variability in concentration levels over time and can be used to indicate possible outliers or data errors. More than one well can be compared on the same plot to look for differences between wells. Non-detect data is plotted as censored data at one-half of the laboratory reporting limit. Time series plots can also be used to examine the data for trends.

Time series plots for the chloride concentrations in MW-605 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-605 are below the concentrations in MW-506 and are often below or very near the concentrations in MW-601. This demonstrates that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

4 CONCLUSION

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill may continue with the detection monitoring program under § 257.94.

5 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. 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. No warranties, express or implied, are intended or made.

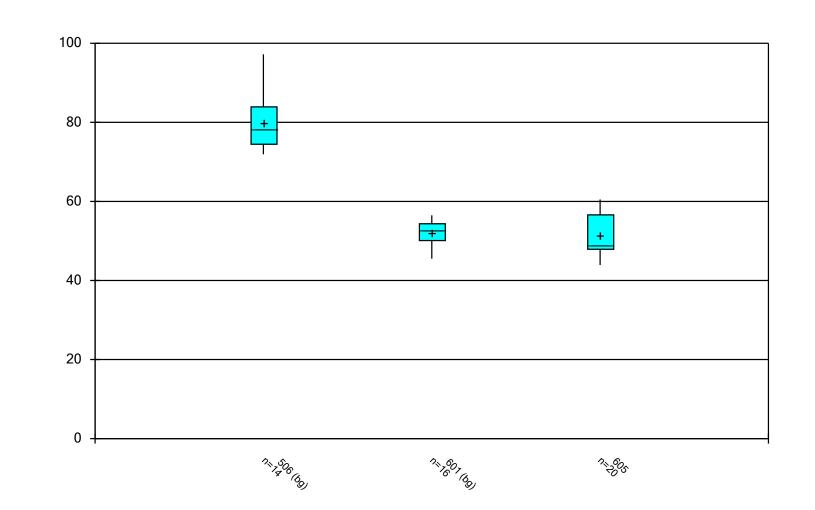
The signatures of the certifying registered geologist and professional engineer on this document represent that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data,

and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

mg/l



Box & Whiskers Plot

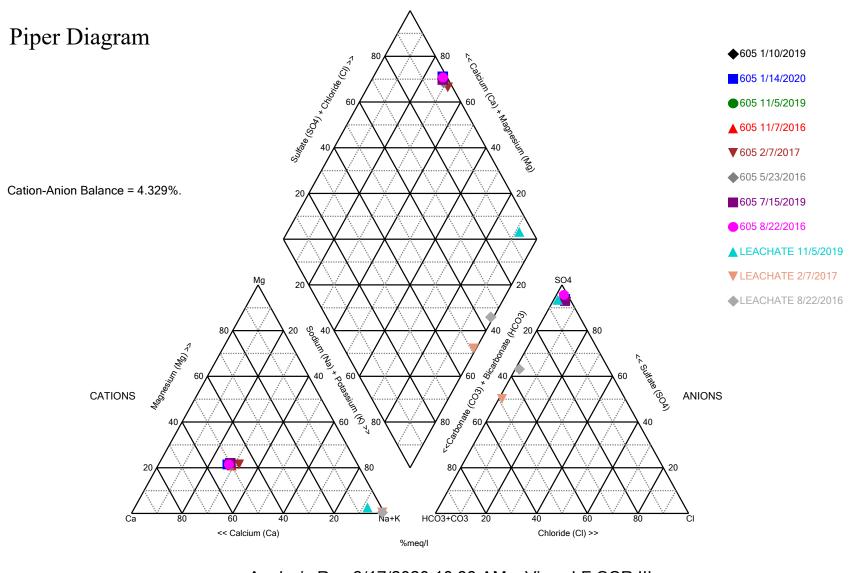
Constituent: Chloride Analysis Run 3/17/2020 10:23 AM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Box & Whiskers Plot

	Montrose Generating Sta	tion UWL	Client: SCS En	gineers Data: Mor	ntrose Printed 3/	17/2020, 10:25	AM		
<u>Constituent</u>	Well	<u>N</u>	<u>Mean</u>	Std. Dev.	Std. Err.	<u>Median</u>	<u>Min.</u>	Max.	<u>%NDs</u>
Chloride (mg/l)	506 (bg)	14	79.98	7.266	1.942	78.35	71.9	97.2	0
Chloride (mg/l)	601 (bg)	16	52.03	3.002	0.7504	52.6	45.5	56.5	0
Chloride (mg/l)	605	20	51.41	5.151	1.152	48.95	43.9	60.5	0

Appendix B

Piper Diagram Plots and Analytical Results



Analysis Run 3/17/2020 10:39 AM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Piper Diagram

Analysis Run 3/17/2020 10:40 AM View: LF CCR III

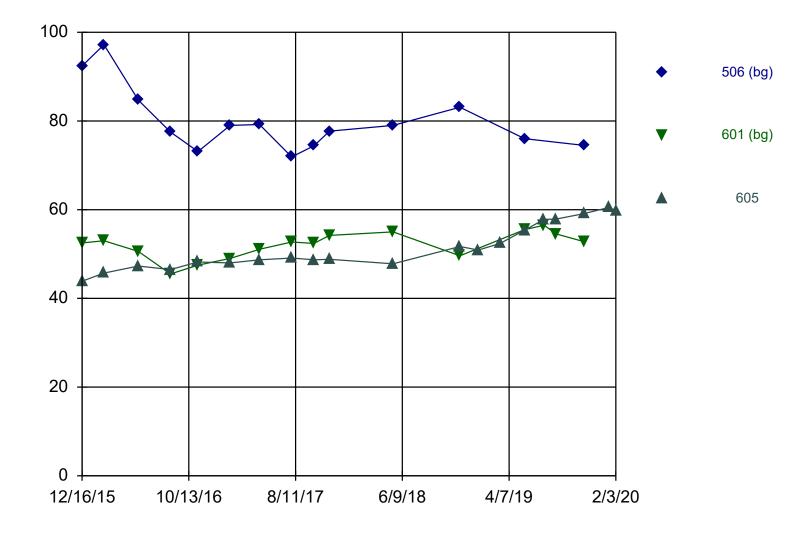
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
605 5/23/2016	276	2.57	412	105	47.3	1880	47.9	10
605 8/22/2016	270	2.51	431	111	46.5	2230	40.9	10
605 11/7/2016	271	2.63	407	104	48.2	2280	44	10
605 2/7/2017	284	2.71	367	101	48	2050	48.1	10
605 1/10/2019	264	2.79	421	107	50.9	1870	42	10
605 7/15/2019	261	2.73	407	108	57.8	1640	41.6	10
605 11/5/2019	248	2.6	399	102	59.1	1730	42.8	10
605 1/14/2020	240	2.48	395	101	60.5	1860	38.1	10
LEACHATE 8/22/2016	1010	20.8	5.88	0.5	18.5	1560	10	549
LEACHATE 2/7/2017	1050	23.9	5.47	0.5	16.3	1360	10	840
LEACHATE 11/5/2019	970	17	49.2	14.5	20.3	2240	44.1	64.2

Appendix C

Time Series Plots





Constituent: Chloride Analysis Run 3/17/2020 10:27 AM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

mg/l

C.2 CCR Landfill Groundwater Monitoring Alternative Source Demonstration Report May 2020 Groundwater Monitoring Event, CCR Landfill, Montrose Generating Station (December 2020)

CCR LANDFILL GROUNDWATER MONITORING ALTERNATIVE SOURCE DEMONSTRATION REPORT MAY 2020 GROUNDWATER MONITORING EVENT

CCR LANDFILL MONTROSE GENERATING STATION CLINTON, MISSOURI

Presented To:

Evergy Metro, Inc.

Presented By:

SCS ENGINEERS

8575 West 110th Street, Suite 100

Overland Park, Kansas 66210

December 2020

File No. 27213168.20

CERTIFICATIONS

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John R. Rockhold, R.G.

SCS Engineers

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Douglas L. Doerr, P.E.

SCS Engineers

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3.3	Time Series Plots	3
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Gene	eral Comments	3
	Regu Stati Alter 3.1 3.2 3.3 Conc	IFICATIONS Regulatory Framework Statistical Results Alternative Source Demonstration 3.1 Box and Whiskers Plots 3.2 Piper Diagram Plots 3.3 Time Series Plots General Comments

Appendices

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1 REGULATORY FRAMEWORK

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Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill 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. Two rounds of verification sampling were conducted for certain constituents on July 14, 2020 and August 26, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

Constituent/Monitoring Well	*UPL	Observation May 21, 2020	1st Verification July 14, 2020	2nd Verification August 26, 2020
Chloride				
MW-605	55.57	60.2	62.1	61.6

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified a SSI above the background prediction limit for chloride in monitoring well MW-605.

3 ALTERNATIVE SOURCE DEMONSTRATION

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Time series plots for the chloride concentrations in MW-605 were plotted along with the chloride concentrations for upgradient wells MW-506 and MW-601. The plots indicate the chloride concentrations in MW-605 are below the concentrations in MW-506 and are often below or very near the concentrations in MW-601. This demonstrates that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Time series plots are provided in **Appendix C**.

4 CONCLUSION

Our opinion is that a sufficient body of evidence is available and presented above to demonstrate that a source other than the CCR Landfill caused the SSI over background levels, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Based on the successful ASD, the owner or operator of the CCR Landfill may continue with the detection monitoring program under § 257.94.

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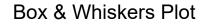
The signatures of the certifying registered geologist and professional engineer on this document represent that to the best of their knowledge, information, and belief in the exercise of their professional judgement in accordance with the standard of practice, it is their professional opinions that the aforementioned information is accurate as of the date of such signatures. Any opinion or decisions by them are made on the basis of their experience, qualifications, and professional judgement and are not to be construed as warranties or guaranties. In addition, opinions relating to regulatory, environmental, geologic, geochemical and geotechnical conditions interpretations or other estimates are based on available data,

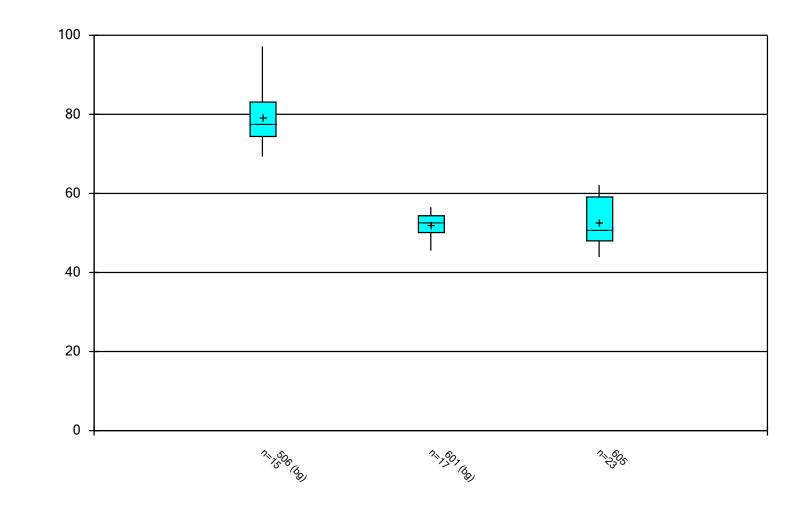
and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Appendix A

Box and Whiskers Plots

mg/l





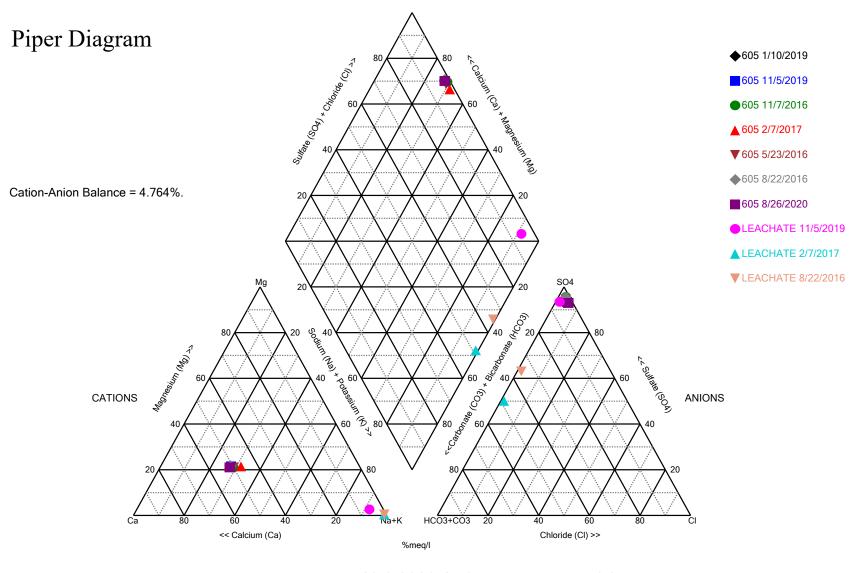
Constituent: Chloride Analysis Run 10/6/2020 4:46 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Box & Whiskers Plot

	Montrose Generating Sta	tion UWL	Client: SCS Engi	neers Data: Mon	trose Printed 10	6/2020, 4:48 PM	l		
Constituent	Well	<u>N</u>	<u>Mean</u>	Std. Dev.	Std. Err.	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Chloride (mg/l)	506 (bg)	15	79.27	7.525	1.943	77.7	69.3	97.2	0
Chloride (mg/l)	601 (bg)	17	52.13	2.938	0.7126	52.7	45.5	56.5	0
Chloride (mg/l)	605	23	52.7	5.882	1.227	50.9	43.9	62.1	0

Appendix B

Piper Diagram Plots and Analytical Results



Analysis Run 10/6/2020 4:53 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Piper Diagram

Analysis Run 10/6/2020 4:54 PM View: LF CCR III

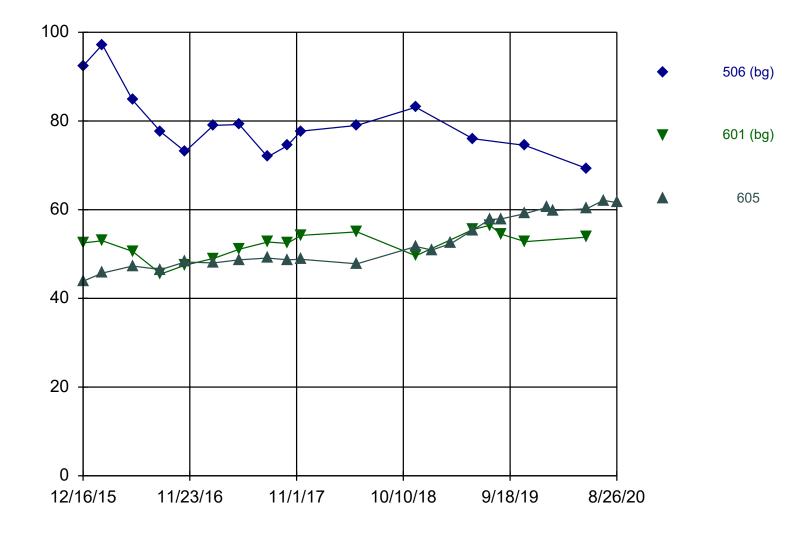
Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Totals (ppm)	Na	K	Ca	Mg	Cl	SO4	HCO3	CO3
605 5/23/2016	276	2.57	412	105	47.3	1880	47.9	10
605 8/22/2016	270	2.51	431	111	46.5	2230	40.9	10
605 11/7/2016	271	2.63	407	104	48.2	2280	44	10
605 2/7/2017	284	2.71	367	101	48	2050	48.1	10
605 1/10/2019	264	2.79	421	107	50.9	1870	42	10
605 11/5/2019	248	2.6	399	102	59.1	1730	42.8	10
605 8/26/2020	244	2.44	396	97.5	61.6	1690	36.8	10
LEACHATE 8/22/2016	1010	20.8	5.88	0.5	18.5	1560	10	549
LEACHATE 2/7/2017	1050	23.9	5.47	0.5	16.3	1360	10	840
LEACHATE 11/5/2019	970	17	49.2	14.5	20.3	2240	44.1	64.2

Appendix C

Time Series Plots





Constituent: Chloride Analysis Run 10/6/2020 4:48 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

mg/l

ADDENDUM 1

2020 Annual Groundwater Monitoring and Corrective Action Report Addendum 1

SCS ENGINEERS

December 20, 2022 File No. 27213168.20

To:	Evergy Metro, Inc. Jared Morrison – Director, Water and Waste Programs	1000
		- 5

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. CCR Landfill Montrose Generating Station – Clinton, Missouri

The CCR Landfill at the Montrose Generating Station is 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 CCR Landfill 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:

Jared Morrison December 20, 2022 Page 2

- January 2020 First verification sampling for the Fall 2019 detection monitoring event.
- February 2020 Second verification sampling for the Fall 2019 detection monitoring event.
- May 2020 Spring 2020 semiannual detection monitoring sampling event and Appendix IV.
- July 2020 First verification sampling for the Spring 2020 detection monitoring sampling event.
- August 2020 Second verification sampling for the Spring 2020 detection monitoring sampling event.
- November 2020 Fall 2020 semiannual detection monitoring 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.
- November 2020 Fall 2020 semiannual detection monitoring sampling event.

Jared Morrison December 20, 2022

ATTACHMENT 1

Laboratory Analytical Reports

ATTACHMENT 1-1 January 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

January 22, 2020

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1180152 01/16/2020 27213168.19 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.19

SDG: L1180152 DATE/TIME: 01/22/20 08:46

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⁹ Sc

ACCOUNT:		

SCS Engineers - KS

Cp: Cover Page

Tc: Table of Contents

Ss: Sample Summary **Cn: Case Narrative**

Sr: Sample Results

GI: Glossary of Terms

MW-605 L1180152-01

Qc: Quality Control Summary

Al: Accreditations & Locations

Sc: Sample Chain of Custody

DUPLICATE 1 L1180152-02

Wet Chemistry by Method 9056A

SDG: L1180152

DATE/TIME: 01/22/20 08:46 PAGE: 2 of 10

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

		Collected by	Collected date/time	Received dat	te/time
		Jason Franks	01/14/20 12:40	01/16/20 10:4	15
Batch	Dilution	Preparation	Analysis	Analyst	Location
		date/time	date/time		
WG1412890	1	01/20/20 15:10	01/20/20 15:10	ST	Mt. Juliet, TN
		Collected by	Collected date/time	Received dat	te/time
		Jason Franks	01/14/20 12:40	01/16/20 10:4	15
Batch	Dilution	Preparation	Analysis	Analyst	Location
		date/time	date/time		
	WG1412890	WG1412890 1	Batch Dilution Preparation date/time WG1412890 1 01/20/20 15:10 Collected by Jason Franks Collected by Batch Dilution	Jason Franks01/14/20 12:40BatchDilutionPreparation date/timeAnalysis date/timeWG1412890101/20/20 15:1001/20/20 15:10Collected by Jason FranksCollected date/time 01/14/20 12:40BatchDilutionPreparationAnalysis	Jason Franks 01/14/20 12:40 01/16/20 10:4 Batch Dilution Preparation date/time Analysis date/time Analysis WG1412890 1 01/20/20 15:10 01/20/20 15:10 ST Collected by Jason Franks Collected date/time 01/14/20 12:40 Received date/time 01/16/20 10:4 Batch Dilution Preparation Analysis

Sc

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Ср

SDG: L1180152

CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.19

SDG: L1180152 DATE/TIME: 01/22/20 08:46 PAGE: 4 of 10

SAMPLE RESULTS - 01

*

Wet Chemistry by Method 9056A

Wet enemistry by		,					 Col
	Result	Qualifier	RDL	Dilution	Analysis	Batch	Cp
Analyte	ug/l		ug/l		date / time		2
Chloride	60500		1000	1	01/20/2020 15:10	WG1412890	Tc

³ Ss
⁴ Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
°Sc

SAMPLE RESULTS - 02



Wet Chemistry by Method 9056A

Wet Grieffistry by Metri							Col
	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Chloride	60100		1000	1	01/20/2020 15:45	<u>WG1412890</u>	Tc

³ Ss
⁴Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
°Sc

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WG1412890

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

Тс

Ss

Cn

Sr

Qc

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Sc

Method Blank (MB)

(MB) R3492459-1 01	1/20/20 13:36			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		51.9	1000

L1180161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1180161-02 01/20/20	0 18:28 • (DUP)	R3492459-10	01/20/20	19:03		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	46000	45600	1	0.977		15

Laboratory Control Sample (LCS)

(LCS) R3492459-2 01/20	0/20 13:48				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	40200	100	80.0-120	

L1180152-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180152-01 01/20/2	20 15:10 • (MS) R	3492459-4 01/	20/20 15:22 •	(MSD) R349245	59-5 01/20/20	15:34						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	60500	108000	108000	95.4	94.9	1	80.0-120	F	F	0.234	15

L1180158-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-02 01/20/2	20 16:43 • (MS) F	3492459-6 0	1/20/20 16:55 •	• (MSD) R34924	159-7 01/20/20	0 17:06						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	45900	94100	94100	96.4	96.4	1	80.0-120			0.0346	15

L1180158-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-04 01/20/20	0 17:30 • (MS) R	3492459-8 01	/20/20 17:41 • ((MSD) R349245	59-9 01/20/20	17:53						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	25400	74800	74900	98.8	99.0	1	80.0-120			0.159	15

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213168.19	L1180152	01/22/20 08:46	7 of 10

GLOSSARY OF TERMS

Ср

Τс

Ss

Cn

Sr

Qc

GI

AI

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

Е

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

PROJECT: 27213168.19

SDG: L1180152

DATE/TIME: 01/22/20 08:46

ACCREDITATIONS & LOCATIONS

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

Alaska17-026NevadiArizonaAZ0612New HArkansas88-0469New JCalifornia2932New MColoradoTN00003New YConnecticutPH-0197North OFloridaE87487North OGeorgiaNELAPNorth OGeorgia^1923North OIllinois200008OklaboIndianaC-TN-01OregorIowa364PennsyKansasE-10277RhodeKansasE-10277RhodeKansaiAl30792TenneeLouisianaAl30792TenneeLouisiana324UtahMaryland324UtahMinnesota047-999-395WashirMinssisippiTN00003West WMissouri340Wiscor	Alabama	40660	Nebras
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Michigan9958VirginiaMinnesota047-999-395WashirMississippiTN00003West VMissouri340Wiscont	Maryland	324	Utah
Minnesota047-999-395WashirMississippiTN00003West VMissouri340Wiscon	Massachusetts	M-TN003	Vermor
MississippiTN00003West VMissouri340Wiscon	Michigan	9958	Virginia
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	Mississippi	TN00003	West V
Montana CERT0086 Wyomi	Missouri	340	Wiscon
	Montana	CERT0086	Wyomii

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.19

L1180152

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SCS Engineers - KS 1575 W. 110th Street Overland Park, KS 66210			8575 W.	s Payable . 110th Street d Park, KS 662		Pres Chk								Pace	Analytical® Center for Testing & Innovation
eport to: ason Franks			jay.martin	franks@scsengin @kcpl.com;	eers.com;									12065 Lebanon Ro Mount Juliet, TN 3 Phone: 615-758-5	7122
roject bescription: Evergy - Montrose	Generating	City/State Collected:	M	ROSE, MO	Please Circ PT MT CT	le:	oPres							Phone: 800-767-5 Fax: 615-758-585	
hone: 913-681-0030 ax: 913-681-0012	Client Project 27213168.1			Lab Project #	-MONTROSE		SmiHDPE-NoPr							sDG # 신기	
JASON REFEAR	Site/Facility ID)#		P.O. #		1	SmiHi							Acctnum: AC	
collected by (signature):	Rush? (L Same Da Next Da	ab MUST Be ay Five (y5 Day y10 Da ay	Day (Rad Only)	Quote # Date Re	sults Needed	Nc. of	de - 9056 12							Template: T1 : Prelogin: P7 ! PM: 206 - Jeff PB:	50317
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Chloride							Shipped Via: Remarks	Sample # (lab only)
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DUPLICATE 1		GW	-	1.11-2	1 1	1	X	1.10							-07
MW-605 MS/MSD	V	GW	/	1		1	X								-6]
***************************************					att a										
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:									pH	Ten Oth		COC Sea COC Sign Bottles Correct	ample Receipt l Present/Intac ned/Accurate; arrive intact; bottles used;	t: _NP _Y _N _Y _N _Y _N _X _N
DW - Drinking Water OT - Other	Samples retur	ned via: dEx Cou	rier	I	racking #	F								ent volume sent If Applica	
Relinquished by : (Signature)	h	Date:	1	Time: F 13-24	levelved by: Signa	ture)	1-1	5.20	Trip	Blank Re	ceived:	HCL / MeoH	Preserva	<pre>b Headspace: ation Correct/C een <0.5 mR/hr:</pre>	
Relinquished by : (Signature)	/	Date: 1/15	or which the rest of the second se		eceived by: (Signa	ture)			Tem	P: 142	°C Bo	TBR ttles Received:	If preserv	ation required by L	ogin: Date/Time
Relinquished by : (Signature)		Date: /	1		eceived for lab by	: (Signa	ture)	. 1	Date			me: 10545	Hold:		Condition: NCF / OK



ANALYTICAL REPORT

January 22, 2020

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1180156 01/16/2020 27213168.19 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Vubb law

Jeff Carr Project Manager

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SDG: L1180156 DATE/TIME: 01/22/20 09:29

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Cp: Cover Page

Tc: Table of Contents Ss: Sample Summary Cn: Case Narrative Sr: Sample Results

MW-605 L1180156-01 Qc: Quality Control Summary

GI: Glossary of Terms

Al: Accreditations & Locations Sc: Sample Chain of Custody

Wet Chemistry by Method 2320 B-2011

Wet Chemistry by Method 9056A Metals (ICP) by Method 6010B

SDG: L1180156 DATE/TIME: 01/22/20 09:29

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

MW-605 L1180156-01 GW			Collected by Jason Franks	Collected date/time 01/14/20 12:40	Received da 01/16/20 10:4	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 2320 B-2011	WG1412856	1	01/17/20 14:15	01/17/20 14:15	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1412890	50	01/20/20 15:57	01/20/20 15:57	ST	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1412643	1	01/20/20 12:24	01/21/20 00:43	CCE	Mt. Juliet, TN



*

Ср

SDG: L1180156 DATE/TIME: 01/22/20 09:29

CASE NARRATIVE

*

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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.19

SDG: L1180156 DATE/TIME: 01/22/20 09:29

PAGE: 4 of 12

Collected date/time: 01/14/20 12:40

SAMPLE RESULTS - 01



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Wet Chemistry by Method 2320 B-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l		ug/l		date / time		2
Alkalinity,Bicarbonate	38100		20000	1	01/17/2020 14:15	WG1412856	Tc
Alkalinity,Carbonate	ND		20000	1	01/17/2020 14:15	WG1412856	
							³ Ss

Sample Narrative:

L1180156-01 WG1412856: Endpoint pH 4.5

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Sulfate	1860000		250000	50	01/20/2020 15:57	<u>WG1412890</u>

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		8
Calcium	395000		1000	1	01/21/2020 00:43	WG1412643	Ŭ
Magnesium	101000		1000	1	01/21/2020 00:43	WG1412643	L
Potassium	2480		1000	1	01/21/2020 00:43	WG1412643	9
Sodium	240000		1000	1	01/21/2020 00:43	WG1412643	

WG1412856

Wet Chemistry by Method 2320 B-2011

QUALITY CONTROL SUMMARY

Method Blank (MB)

MB Result MB Q	Qualifier MB MDL	MB RDL		
ug/l	ug/l	ug/l		
U	2710	20000		
U	2710	20000		
U	<u>j</u> n	2710	2710 20000	2710 20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1180222-01 Original Sample (OS) • Duplicate (DUP)

20 15:05 • (DUP) I	R3491844-3 (01/17/20 17:	:42							
Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits					
ug/l	ug/l		%		%					
90400	91200	1	0.887		20					
U	0.000	1	0.000		20					
	Original Result	Original Result DUP Result ug/l ug/l 90400 91200	Original ResultDUP ResultDilutionug/lug/l1	ug/l ug/l % 90400 91200 1 0.887	Original ResultDUP ResultDilutionDUP RPDDUP Qualifierug/l%%904009120010.887	Original ResultDUP ResultDilutionDUP RPDDUP QualifierDUP RPD Limitsug/lug/l%%904009120010.88720	Original ResultDUP ResultDilutionDUP RPDDUP QualifierDUP RPD Limitsug/lug/l%%904009120010.88720	Original ResultDUP ResultDilutionDUP RPDDUP QualifierDUP RPDug/lug/l%%904009120010.88720	Original ResultDUP ResultDIUP RPDDUP QualifierDUP RPD Limitsug/lug/l%%904009120010.88720	Original ResultDUP ResultDID RPDDUP QualifierDUP RPD Limitsug/lug/l%%904009120010.88720

Sample Narrative:

OS: Endpoint pH 4.5

DUP: Endpoint pH 4.5

L1180327-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1180327-05 01/17/2	0 19:47 • (DUP) F	R3491844-4 C	01/17/20 20	0:00		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	U	0.000	1	0.000		20
Alkalinity,Carbonate	102000	97900	1	4.44		20

Sample Narrative:

OS: Endpoint pH 4.5 DUP: Endpoint pH 4.5

SDG: L1180156 DATE/TIME: 01/22/20 09:29

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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1180156-01

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Method Blank (MB)

(MB) R3492459-1 0	01/20/20 13:36			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Sulfate	U		77.4	5000

L1179868-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1179868-01 01/20/20	0 14:47 • (DUP)	R3492459-3	01/20/20	14:59		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Sulfate	12200	12100	1	0.0972		15

L1180161-02 Original Sample (OS) • Duplicate (DUP)

COS) L1180161-02 01/20/20 18:28 + (DUP) R3492459-10 01/20/20 19:03 Original Result DUP Result Dilution DUP RPD DUP Qualifier DUP RPD Analyte ug/l ug/l % % Sulfate 9530 9420 1 116 15	L1180161-02 Origir	nal Sample (OS) • Du	plicate (DUP)		
nalyte ug/l ug/l % %	DS) L1180161-02 01/20/2	20 18:28 • (DUP) R3492459-	10 01/20/20 19:03		
		Original Result DUP Result	Dilution DUP RPD DI		
Sulfate 9530 9420 1 116 15	Analyte	ug/l ug/l	%	%	
	Sulfate	9530 9420	1 1.16	15	

Laboratory Control Sample (LCS)

(LCS) R3492459-2 01/20	0/20 13:48				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Sulfate	40000	40800	102	80.0-120	

L1180152-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180152-01 01/20/2	0 15:10 • (MS) R3	3492459-4 01/	20/20 15:22 •	(MSD) R349245	59-5 01/20/20	15:34						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%

L1180158-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-02	01/20/20 16:43 • (MS) F	83492459-6 0	1/20/20 16:55	5 • (MSD) R3492	459-7 01/20	/20 17:06							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	
Sulfate	50000	9450	59500	59900	100	101	1	80.0-120			0.587	15	
	ACCOUNT:			PRC	DJECT:			SDG:		DATE	TIME:		PAGE:
	SCS Engineers - KS			2721	3168.19		L	1180156		01/22/20	0 09:29		7 of 12

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

L1180158-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180158-04 01/20/20) 17:30 • (MS) R	3492459-8 01	/20/20 17:41 • (MSD) R349245	59-9 01/20/20	17:53						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Sulfate	50000	1040000	1080000	1080000	85.3	85.7	1	80.0-120	E	E	0.0167	15

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.19

SDG: L1180156 DATE/TIME: 01/22/20 09:29

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3492482-1 01/20/20 23:36

	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	
Calcium	U		46.3	1000	
Magnesium	18.0	J	11.1	1000	
Potassium	175	J	102	1000	
Sodium	189	J	98.5	1000	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3492482-2 01/20/	20 23:39 • (LCS	SD) R3492482	-3 01/20/20 23	3:41						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Calcium	10000	9650	9540	96.5	95.4	80.0-120			1.15	20
Magnesium	10000	9670	9610	96.7	96.1	80.0-120			0.689	20
Potassium	10000	9130	9100	91.3	91.0	80.0-120			0.345	20
Sodium	10000	9700	9590	97.0	95.9	80.0-120			1.11	20

L1180058-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1180058-02 01/20/	20 23:44 • (MS)	R3492482-5 (01/20/20 23:4	9 • (MSD) R349	2482-6 01/20	0/20 23:52						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	10000	150000	157000	156000	71.7	56.6	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	0.965	20
Magnesium	10000	15600	24700	24700	90.6	91.1	1	75.0-125			0.219	20
Potassium	10000	6060	14900	14900	88.6	88.5	1	75.0-125			0.0168	20
Sodium	10000	63100	70900	70500	77.3	73.5	1	75.0-125		$\underline{\vee}$	0.538	20

SDG: L1180156 DATE/TIME: 01/22/20 09:29

GLOSSARY OF TERMS

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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).
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.

PROJECT: 27213168.19

SDG: L1180156 DATE/TIME: 01/22/20 09:29

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ACCREDITATIONS & LOCATIONS

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	Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Je
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North C
Florida	E87487	North C
Georgia	NELAP	North C
Georgia ¹	923	North D
Idaho	TN00003	Ohio–V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregon
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	Al30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West Vi
Missouri	340	Wiscons
Montana	CERT0086	Wyomir

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.19

L1180156

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SCS Engineers - KS 1575 W. 110th Street Overland Park, KS 66210			8575 W.	110th Street	10	Pres Chk		<2							Pace	Analytical [®] Denter for Testing & Innovation
teport to: ason Franks			jay.martin	@kcpl.com;				NO3							12065 Lebanon Ro Mount Juliet, TN 3 Phone: 615-758-50	7122 75 0 1 23
Project Description: Evergy - Montros		City/State Collected:	11/100	rcle:	Pres	PE-H							Phone: 800-767-5 Fax: 615-758-5855	回到時期		
hone: 913-681-0030 ax: 913-681-0012	Client Project 27213168.		/ /-	Lab Project #	A start		PE-Noi	OmIHD							SDG # LI	43
Collected by (print): DASON R. FRANK	Site/Facility II	D#		P.O. #	l.	1	SmiHD	. Na 25	NoPres						Acctnum: AQ	
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Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	ALKE	Met	\$04						Remarks	Sample # (lab only)
MW-605	GRAB	GW	-	1/14/2020	1240	3	X	X	X							~61
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SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water		1917 -	38 ¹⁷ 2			, +)	State State State State		med/Accurate: arrive intact: t bottles used:							
OT - Other	Samples retur	dExCou			- 1//	A								VOA Zer	If Applica to Headspace:	bleX_N
Belinquished by : (Signature)	h	Date:	120	13:24	law	ature)	1-1	5-2	5	Trip Blar	nk Rece	Ĥ	CL / MeoH	RAD SCI	reen <0.5 mR/hr:	24 _n
Relinquished by : (Signature)	1	Date: 1/15/	1	Fime: Re	eceived by: (Sign	nature)		2			AC	~	Received:	If preser	vation required by L	ogin: Date/Time
Relinquished by : (Signature)	1923-00-00-00-00-00-00-00-00-00-00-00-00-00	Date:	8575 W. 110th Street (hk 22 Overland Park, KS 66210 (hk 22 Email To: Jfranks@scsengineers.com; (hk 22 Jay, martin@kcpl.com; (hk 22 Motified) Piesse Circle: (hk 22 Motofield: Piesse Circle: (hk (hk 22 P.O. # Iab Project # (hk (hk (hk (hk Notified) Quote # (hk (hk (hk (hk (hk P.O. # (hk (hk (hk (hk (hk (hk (hk ViBad Only Date Results Needed Nr. (hk (hk <td>Hold:</td> <td></td> <td>Condition: NCF OK</td>			Hold:		Condition: NCF OK								

Jared Morrison December 20, 2022

ATTACHMENT 1-2 February 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1186193 02/05/2020 27213168.19 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.19

SDG: L1186193 DATE/TIME: 02/06/20 18:34 PAGE: 1 of 11

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr

Qc

GI

ΆI

Sc

Cp: Cover Page
Tc: Table of Contents
Ss: Sample Summary
Cn: Case Narrative
Sr: Sample Results
MW-605 L1186193-01
DUPLICATE 1 L1186193-02
Qc: Quality Control Summary
Wet Chemistry by Method 9056A
GI: Glossary of Terms
Al: Accreditations & Locations
Sc: Sample Chain of Custody

SDG: L1186193 DATE/TIME: 02/06/20 18:34

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

			Collected by	Collected date/time	Received da	te/time
MW-605 L1186193-01 GW			Jason R. Franks	02/03/20 12:10	02/05/20 10	:35
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1423103	1	02/06/20 02:26	02/06/20 02:26	ELN	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DUPLICATE1 L1186193-02 GW			Jason R. Franks	02/03/20 12:10	02/05/20 10	:35
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 9056A	WG1423103	1	02/06/20 03:10	02/06/20 03:10	ELN	Mt. Juliet, TN

*

Ср

Tc

SDG: L1186193 DATE/TIME: 02/06/20 18:34

CASE NARRATIVE

*

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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.19

SDG: L1186193 DATE/TIME: 02/06/20 18:34

PAGE: 4 of 11

SAMPLE RESULTS - 01 L1186193

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Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 'Ср
Analyte	ug/l		ug/l		date / time		2
Chloride	59800		1000	1	02/06/2020 02:26	WG1423103	¯Тс

³Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
°Sc

ACCOUNT: SCS Engineers - KS

PROJECT: 27213168.19

SDG: L1186193

DATE/TIME: 02/06/20 18:34 PAGE: 5 of 11

SAMPLE RESULTS - 02 L1186193



Wet Chemistry by Method 9056A

	Result	Qualifier RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l	ug/l		date / time		2
Chloride	60100	1000	1	02/06/2020 03:10	WG1423103	⁻Tc



SDG: L1186193

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1186193-01,02

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Method Blank (MB)

(MB) R3497541-1 02/05/20 22:50				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		51.9	1000

L1186180-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1186180-01 02/05/2	20 23:34 • (DUP)) R3497541-3	02/05/20	23:48		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	11400	11300	1	0.369		15

L1186330-01 Original Sample (OS) • Duplicate (DUP)

L1186330-01 Original Sample (OS) • Duplicate (DUP)								
(OS) L1186330-01 02/06/20 09:24 • (DUP) R3497541-18 02/06/20 09:39								
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits		
Analyte	ug/l	ug/l		%		%		
Chloride	11400	11400	1	0.176		15		

Laboratory Control Sample (LCS)

(LCS) R3497541-2 02/05/20 23:05									
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	ug/l	ug/l	%	%					
Chloride	40000	39700	99.3	80.0-120					

L1186188-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186188-01 02/06/20 00:02 • (MS) R3497541-4 02/06/20 00:17 • (MSD) R3497541-5 02/06/20 00:31												
Spike Amount Original Result MS Result MSD Result MS Rec. MSD Rec. Dilution Rec. Limits MS Qualifier MSD Qualifier RPD RPD Limits										RPD Limits		
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	6360	51200	51300	89.6	89.9	1	80.0-120			0.334	15

L1186188-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186188-03	02/06/20 01:00 • (MS)	R3497541-6 0	2/06/20 01:14	1 • (MSD) R3497	541-7 02/06	/20 01:58							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	
Chloride	50000	20300	65700	66100	90.7	91.5	1	80.0-120			0.595	15	
	ACCOUNT:			PRC	JECT:			SDG:		DATE	/TIME:		PAGE:
	SCS Engineers - KS			2721	3168.19		Ľ	1186193		02/06/2	20 18:34		7 of 11

Analyte

Chloride

Wet Chemistry by Method 9056A

ug/l

50000

QUALITY CONTROL SUMMARY

Dilution Rec. Limits

1

%

80.0-120

MS Qualifier

E

MSD Qualifier

E

RPD

1.02

%

MSD Rec.

%

88.5

RPD Limits

%

15

¹Cp ²Tc

³Ss

Cn

°AI °Sc

L1186202-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

L1186193-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD) (OS) L1186193-01 02/06/20 02:26 • (MS) R3497541-8 02/06/20 02:41 • (MSD) R3497541-9 02/06/20 02:55

ug/l

103000

Spike Amount Original Result MS Result

ug/l

59800

(OS) L1186202-01 02/06/20 03:24 • (MS) R3497541-10 02/06/20 03:38 • (MSD) R3497541-11 02/06/20 03:53												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	227000	261000	261000	68.4	68.6	1	80.0-120	EV	EV	0.0293	15

MS Rec.

%

86.4

MSD Result

ug/l

104000

L1186202-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS)	(OS) L1186202-03 02/06/20 04:51 • (MS) R3497541-12 02/06/20 05:05 • (MSD) R3497541-13 02/06/20 05:19												
		Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Anal	yte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chlo	ride	50000	25300	71900	72400	93.3	94.2	1	80.0-120			0.642	15

L1186248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186248-01 02/06/20 05:48 • (MS) R3497541-14 02/06/20 06:03 • (MSD) R3497541-15 02/06/20 06:17												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	5610	51800	52200	92.4	93.3	1	80.0-120			0.805	15

L1186248-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1186248-06 02/06/	(OS) L1186248-06 02/06/20 07:00 • (MS) R3497541-16 02/06/20 07:43 • (MSD) R3497541-17 02/06/20 07:58											
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	27500	72500	72700	89.9	90.5	1	80.0-120			0.373	15

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SCS Engineers - KS	

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GLOSSARY OF TERMS

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Τс

ŚS

Cn

Sr

ʹQc

GI

AI

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

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.
•	The sumple concentration is too might to evaluate decurate spine recoveries.

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ACCREDITATIONS & LOCATIONS

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	Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Je
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North C
Florida	E87487	North C
Georgia	NELAP	North C
Georgia ¹	923	North D
Idaho	TN00003	Ohio–V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregon
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West Vi
Missouri	340	Wiscons
Montana	CERT0086	Wyomir

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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L1186193

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			Billing Info	rmation:					Analysis / Co	ntainer / Preserva	ative	1	Chain of Custody	Page of		
CS Engineers - KS Accounts Payable B575 W. 110th Street Overland Park, KS 66210					8575 W. 110th Street		8575 W. 110th Street									Analytical [®] enter for Tecting & Inne
Report to: ason Franks			jay.martin	franks@scsengine @kcpl.com;	eers.com;	a nami							12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58	1122 58 2 2 2		
Project Description: Evergy - Montrose G	ienerating	City/State Collected:	NONTR	2BE	Please Circ PT MT CT		oPre						Phone: 800-767-58 Fax: 615-758-5859			
Phone: 913-681-0030 Fax: 913-681-0012	Client Project 27213168.1	#		Lab Project #	MONTROSE	***	DPE-N						SDG # LI	18619		
Collected by (print):	Site/Facility ID)#		P.O. #			25mlHDPE-NoPres						Acctnum: AQU			
DASON R HRANU Collected by (signature):	Rush? (L	ab MUST Be		Quote #		-	9056 12						Template: T135965 Prelogin: P753039			
Immediately	Same Da Next Day Two Day Three Da	y 5 Day 10 D	y (Rad Only) ay (Rad Only)	Date Res	sults Needed	No.	1						PM: 206 - Jeff (PB:	Carr		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Chloride						Shipped Via: Remarks	Sample # (lab		
MW-605	GRAS	GW	T	2/3/76	1/210	1	X							- 0		
DUPLICATE 1	Pic	GW	1	117	1210	1	X							6		
MW-605 MS/MSD		GW			IZW	1	x							0		
and the second se	IV							1	1							
	14-2-11 (BA 13-11)															
						A										
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and the second second								1.1								
	1	2 2 2	all and	and the second second									ment in demotion of the second			
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B Bioassay WW - WasteWater	Remarks:								pH Flow	Temp Other		COC Seal COC Sign Bottles Correct	ample Receipt C Present/Intact med/Accurate: arrive intact: bottles used:	· AND Y		
DW - Drinking Water OT - Other	Samples retu UPSF	rned via: edExCo	urier _	JUA 1	Fracking #							VOA Zero	ent volume sent: <u>If Applicab</u> Meadspace:	<u>le</u> r		
Relinguisted by : (Signature)	/	Date:	000000000000000000000000000000000000000	Time: 1238 4	Received by: (Sign	ature)	+		Trip Blank	Received: Yes / HCL, TBR	/ MeoH		ation Correct/Ch men <0.5 mR/hr:	ecked; _Y		
Relinquished by : (Signature)		Dape:	120	Time:	Received by: (Sign	ature)		-a.	Temp: MA	3°C Bottles R	the second se	If preserv	ation required by Lo.	gin: Date/Tim		
Relinquished by : (Signature)	-	Date:	100	Time:	Received for lab b	y: (Signa	iture)	1	Date:	Time:	35	Hold:		Conditio		

ATTACHMENT 1-3 May 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

SCS Engineers - KS

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

Report To:

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

Тс Ss Cn Sr ʹQc Gl ΆI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.18

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	⁴ Cn
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	⁸ Al
	⁹ Sc

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

	SAMPLES	SAMPLE SUMMARY						
MW-601 L1221865-01 GW			Collected by Whit Martin	Collected date/time 05/21/20 12:25	Received da 05/23/20 08			
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		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 14:47	05/29/20 14:47	ELN	Mt. Juliet, TN		
Net Chemistry by Method 9056A	WG1483801	100	05/29/20 23:47	05/29/20 23:47	ELN	Mt. Juliet, TI		
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:43	TRB	Mt. Juliet, T		
			Collected by	Collected date/time	Received da	te/time		
MW-602 L1221865-02 GW			Whit Martin	05/21/20 10:20	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, Ti		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 15:05	05/29/20 15:05	ELN	Mt. Juliet, TI		
Net Chemistry by Method 9056A	WG1483801	100	05/30/20 00:05	05/30/20 00:05	ELN	Mt. Juliet, TI		
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:46	TRB	Mt. Juliet, TI		
			Collected by	Collected date/time	Received da			
MW-603 L1221865-03 GW			Whit Martin	05/21/20 12:05	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, T		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 15:22	05/29/20 15:22	ELN	Mt. Juliet, T		
Net Chemistry by Method 9056A	WG1483801	100	05/30/20 00:22	05/30/20 00:22	ELN	Mt. Juliet, T		
Metals (ICP) by Method 6010B	WG1481522	1	05/29/20 10:00	05/29/20 14:49	TRB	Mt. Juliet, T		
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	Analysis	Analyst	Location		
	Baten	Dilution	date/time	date/time	Analyst	Eocation		
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, TI		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 15:58	05/29/20 15:58	ELN	Mt. Juliet, T		
Net Chemistry by Method 9056A	WG1483801	100	05/30/20 01:34	05/30/20 01:34	ELN	Mt. Juliet, T		
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 09:56	EL	Mt. Juliet, T		
			Collected by	Collected date/time	Received da	te/time		
MW-605 L1221865-05 GW			Whit Martin	05/21/20 14:10	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, T		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 16:52	05/29/20 16:52	ELN	Mt. Juliet, T		
Net Chemistry by Method 9056A	WG1483801	100	05/30/20 01:52	05/30/20 01:52	ELN	Mt. Juliet, T		
Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:05	EL	Mt. Juliet, T		
MW-701 L1221865-06 GW			Collected by Whit Martin	Collected date/time 05/21/20 17:10	Received da 05/23/20 08			
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location		
			date/time	date/time				
Gravimetric Analysis by Method 2540 C-2011	WG1483378	1	05/28/20 18:11	05/28/20 22:59	TH	Mt. Juliet, T		
Net Chemistry by Method 9056A	WG1483801	1	05/29/20 17:46	05/29/20 17:46	ELN	Mt. Juliet, TI		
	WG1483801	100	05/30/20 02:10	05/30/20 02:10	ELN	Mt. Juliet, TI		
Net Chemistry by Method 9056A Metals (ICP) by Method 6010B	WG1481523	1	05/29/20 17:57	05/30/20 10:08	EL	Mt. Juliet, TI		

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 L1221865
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Ср

Tc

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

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Ср

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ΆI

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MW-702 L1221865-07 GW			Collected by Whit Martin	Collected date/time 05/21/20 16:25	Received da 05/23/20 08	
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
MW-703 L1221865-08 GW			Collected by Whit Martin	Collected date/time 05/21/20 15:05	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
			Collected by Whit Martin	Collected date/time 05/21/20 13:00	Received da 05/23/20 08	
MW-705 L1221865-10 GW						0.40
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
			Collected by	Collected date/time	Received date/time	
MW-706 L1221865-11 GW			Whit Martin	05/21/20 10:25	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
				05/20/20 10:15	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1483801	1	05/29/20 19:15	05/29/20 19:15	ELN	Mit. Juliet, IN
Wet Chemistry by Method 9056A Wet Chemistry by Method 9056A	WG1483801 WG1483801	1 20	05/29/20 19:15 05/30/20 03:39	05/29/20 19:15 05/30/20 03:39	ELN	Mt. Juliet, TN Mt. Juliet, TN

PROJECT: 27213168.18

SDG: L1221865 DATE/TIME: 06/01/20 15:14

CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

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SAMPLE RESULTS - 01 L1221865

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Gravimetric Analysis by Method 2540 C-2011

						Cn
	Result	Qualifier RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l	ug/l		date / time		 2
Dissolved Solids	4680000	5000	0 1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

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

Wet Chemistry by M	lethod 9056A						³ Ss	
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time		⁴ Cr	
Chloride	53800		1000	1	05/29/2020 14:47	WG1483801		'
Fluoride	462		150	1	05/29/2020 14:47	WG1483801	5	
Sulfate	3230000		500000	100	05/29/2020 23:47	WG1483801	Sr	

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/29/2020 14:43	WG1481522
Calcium	478000		1000	1	05/29/2020 14:43	WG1481522

SAMPLE RESULTS - 02 L1221865

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Gravimetric Analysis by Method 2540 C-2011

							l'Cn
	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1800000		25000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

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

Wet Chemistry by Method 9056A										
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time		4	Cn		
Chloride	3990		1000	1	05/29/2020 15:05	WG1483801				
Fluoride	ND		150	1	05/29/2020 15:05	<u>WG1483801</u>	5			
Sulfate	1270000		500000	100	05/30/2020 00:05	WG1483801	Č	Sr		

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	4270		200	1	05/29/2020 14:46	WG1481522
Calcium	313000		1000	1	05/29/2020 14:46	WG1481522

SAMPLE RESULTS - 03 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	· · ·					Cn
	Result	Qualifier RDL	. Dilution	n Analysis	Batch	Ср
Analyte	ug/l	ug/l		date / time		2
Dissolved Solids	2840000	500	00 1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

Wet Chemistry b	by Method 9056A						3	³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	[<u> </u>
Analyte	ug/l		ug/l		date / time		4	4 Cn
Chloride	5930		1000	1	05/29/2020 15:22	WG1483801		
Fluoride	642		150	1	05/29/2020 15:22	<u>WG1483801</u>		5
Sulfate	2140000		500000	100	05/30/2020 00:22	WG1483801		Sr

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	5370		200	1	05/29/2020 14:49	WG1481522
Calcium	397000		1000	1	05/29/2020 14:49	WG1481522

SAMPLE RESULTS - 04 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	– Cp
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2780000		50000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

Wet Chemistry I	by Method 9056A						3
	Result	Qualifier	RDL	Dilution	Analysis	Batch	L
Analyte	ug/l		ug/l		date / time		4
Chloride	13300		1000	1	05/29/2020 15:58	<u>WG1483801</u>	
Fluoride	489		150	1	05/29/2020 15:58	<u>WG1483801</u>	5
Sulfate	1920000		500000	100	05/30/2020 01:34	WG1483801	Ĭ

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	3760		200	1	05/30/2020 09:56	WG1481523
Calcium	440000		1000	1	05/30/2020 09:56	WG1481523

SDG: L1221865

SAMPLE RESULTS - 05 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2740000		50000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2740000		50000	1	05/28/2020 22:59	WG1483378	Tc
Wet Chemistry by Meth	nod 9056A						³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	4 C n
Analyte Chloride		Qualifier		Dilution 1	•	Batch WG1483801	- ⁴ Cn
	ug/l	<u>Qualifier</u>	ug/l	Dilution 1 1	date / time		− ⁴ Cn 5Sr

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	1450		200	1	05/30/2020 10:05	WG1481523
Calcium	411000		1000	1	05/30/2020 10:05	WG1481523

SAMPLE RESULTS - 06 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier R	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l	u	ıg/l		date / time		2
Dissolved Solids	3540000	5	50000 ·	1	05/28/2020 22:59	WG1483378	¯Тс

Wet Chemistry by Method 9056A

Wet Chemistry b	by Method 9056A						³ S
	Result	Qualifier	RDL	Dilution	Analysis	Batch	L
Analyte	ug/l		ug/l		date / time		4
Chloride	496000		100000	100	05/30/2020 02:10	<u>WG1483801</u>	
Fluoride	1090		150	1	05/29/2020 17:46	<u>WG1483801</u>	5
Sulfate	1910000		500000	100	05/30/2020 02:10	WG1483801	ٌS

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:08	WG1481523
Calcium	432000		1000	1	05/30/2020 10:08	WG1481523

SDG: L1221865

SAMPLE RESULTS - 07 L1221865

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Gravimetric Analysis by Method 2540 C-2011

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	CP
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2780000		50000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

Wet Chemistry b	y Method 9056A						3	Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	L	
Analyte	ug/l		ug/l		date / time		4	Cn
Chloride	238000		20000	20	05/30/2020 02:28	WG1483801		CII
Fluoride	260		150	1	05/29/2020 18:04	WG1483801	5	5
Sulfate	1430000		100000	20	05/30/2020 02:28	WG1483801		Sr

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:10	WG1481523
Calcium	423000		1000	1	05/30/2020 10:10	WG1481523

SAMPLE RESULTS - 08 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1170000		20000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

Wet Chemistry b	by Method 9056A						³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		4 Cn
Chloride	8160		1000	1	05/29/2020 18:22	WG1483801	CII
Fluoride	197		150	1	05/29/2020 18:22	<u>WG1483801</u>	5
Sulfate	735000		50000	10	05/30/2020 02:46	WG1483801	⁵ Sr

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:13	WG1481523
Calcium	192000		1000	1	05/30/2020 10:13	WG1481523

SAMPLE RESULTS - 09 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1120000		20000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

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

Wet Chemistry b	by Method 9056A	ι.					3
	Result	Qualifier	RDL	Dilution	Analysis	Batch	L
Analyte	ug/l		ug/l		date / time		4
Chloride	3030		1000	1	05/29/2020 18:39	<u>WG1483801</u>	
luoride	ND		150	1	05/29/2020 18:39	<u>WG1483801</u>	
Sulfate	722000		50000	10	05/30/2020 03:04	WG1483801	Ĭ

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:16	WG1481523
Calcium	156000		1000	1	05/30/2020 10:16	WG1481523

SAMPLE RESULTS - 10 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	— Cp
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1290000		20000	1	05/28/2020 22:59	WG1483378	Tc

Wet Chemistry by Method 9056A

Wet Chemistry I	by Method 9056A						3
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		4
Chloride	10400		1000	1	05/29/2020 18:57	<u>WG1483801</u>	
Fluoride	205		150	1	05/29/2020 18:57	<u>WG1483801</u>	5
Sulfate	796000		50000	10	05/30/2020 03:22	WG1483801	Ĭ

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:19	WG1481523
Calcium	185000		1000	1	05/30/2020 10:19	WG1481523

SAMPLE RESULTS - 11 L1221865

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	— Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1800000		25000	1	05/28/2020 22:31	WG1483373	Tc

Wet Chemistry by Method 9056A

Wet Chemistry b	by Method 9056A						³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		⁴ Cr
Chloride	29500		1000	1	05/29/2020 19:15	WG1483801	
Fluoride	165		150	1	05/29/2020 19:15	WG1483801	5
Sulfate	1110000		100000	20	05/30/2020 03:39	WG1483801	⁵Sr

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	269		200	1	05/30/2020 10:21	WG1481523
Calcium	270000		1000	1	05/30/2020 10:21	WG1481523

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3533287-1 05/28/20 22:31				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

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

(OS) L1221865-11 05/28/2	20 22:31 • (DUF	P) R3533287-3	05/28/20	22:31		
	Original Resu	It DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	1800000	1790000	1	0.279		5

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05	5/28/20 22:31				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	7940000	90.2	85.0-115	

SDG: L1221865 DATE/TIME: 06/01/20 15:14

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WG1483378

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY L1221865-01,02,03,04,05,06,07,08,09,10

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Method Blank (MB)

(MB) R3533488-1 05/28	/20 22:59			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

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

(OS) L1221865-10 05/2	28/20 22:59 • (DU	P) R3533488-	3 05/28/2	0 22:59		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	1290000	1340000	1	3.64		5

Laboratory Control Sample (LCS)

(LCS) R3533488-2 0	5/28/20 22:59				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8560000	97.3	85.0-115	

PROJECT: 27213168.18

SDG: L1221865 DATE/TIME: 06/01/20 15:14 PAGE: 18 of 26 Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1221865-01,02,03,04,05,06,07,08,09,10,11

(MB) R3533694-1 C	5/29/20 13:29			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		379	1000
Fluoride	U		64.0	150
Sulfate	U		594	5000

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

(OS) L1221865-03 05/29	9/20 15:22 • (DUF	P) R3533694-3	3 05/29/2	0 15:40		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	5930	5970	1	0.664		15
Fluoride	642	647	1	0.667		15

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

(OS) L1221949-01 05/29/2	0 21:41 • (DUP)	R3533694-7 ()5/29/20	21:59			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	ug/l	ug/l		%		%	
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 05/30/2	5) L1221865-03 05/30/20 00:22 • (DUP) R3533694-8 05/30/20 01:16									
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits				
Analyte	ug/l	ug/l		%		%				
Sulfate	2140000	2060000	100	3.82		15				

Laboratory Control Sample (LCS)

(LCS) R3533694-2 0	5/29/20 13:47				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	39200	98.0	80.0-120	
Fluoride	8000	7820	97.8	80.0-120	
Sulfate	40000	39900	99.7	80.0-120	

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213168.18	L1221865	06/01/20 15:14	19 of 26



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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1221865-01,02,03,04,05,06,07,08,09,10,11

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

(OS) L1221865-04 05/29/	20 15:58 • (MS)	R3533694-4 ()5/29/20 16:16	• (MSD) R3533	8694-5 05/29/	20 16:34						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
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	EV	EV	0.0205	15

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

(OS) L1221865-11 05/29/20	0 19:15 • (MS) R	3533694-6 05	6/29/20 19:36				
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
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	EV

ACCOUNT:
SCS Engineers - KS

DATE/TIME: 06/01/20 15:14

WG1481522

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221865-01,02,03

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Method Blank (MB)

(MB) R3533275-1 05/29/20 13:26								
	MB Result	MB Qualifier	MB MDL	MB RDL		2		
Analyte	ug/l		ug/l	ug/l		Tc		
Boron	U		25.4	200				
Calcium	U		389	1000		³ Ss		

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05	5/29/20 13:29					-
	Spike Amour	nt LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	ືSr
Analyte	ug/l	ug/l	%	%		
Boron	1000	1040	104	80.0-120		⁶
Calcium	10000	10500	105	80.0-120		Qc

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											
	Spike Amount Original R	esult MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%		%			%	%
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	$\underline{\vee}$	$\underline{\vee}$	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											
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%		%			%	%
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

ACCOUNT:
SCS Engineers - KS

PROJECT: 27213168.18

SDG: L1221865

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WG1481523

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221865-04,05,06,07,08,09,10,11

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Method Blank (MB)

Method Bidh	K (IVID)							
(MB) R3533429-1 05/30/20 09:32								
	MB Result	MB Qualifier	MB MDL	MB RDL				
Analyte	ug/l		ug/l	ug/l				
Boron	U		25.4	200				
Calcium	U		389	1000				

Laboratory Control Sample (LCS)

(LCS) R3533429-2 0	5/30/20 09:34					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	ug/l	ug/l	%	%		
Boron	1000	947	94.7	80.0-120		
Calcium	10000	9760	97.6	80.0-120		

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											
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	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	$\underline{\vee}$		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											
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	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	$\underline{\vee}$	$\underline{\vee}$	0.239	20

ACCOUNT:	
SCS Engineers - K	s

PROJECT: 27213168.18

SDG: L1221865

DATE/TIME: 06/01/20 15:14

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GLOSSARY OF TERMS

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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

PROJECT: 27213168.18

The sample concentration is too high to evaluate accurate spike recoveries.

SDG: L1221865 DATE/TIME: 06/01/20 15:14

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ACCREDITATIONS & LOCATIONS

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	Nebras
Alaska	17-026	Nevad
Arizona	AZ0612	New H
Arkansas	88-0469	New Je
California	2932	New M
Colorado	TN00003	New Y
Connecticut	PH-0197	North (
Florida	E87487	North (
Georgia	NELAP	North (
Georgia ¹	923	North I
ldaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregor
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South
Kentucky ²	16	South I
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas
Maryland	324	Utah
Massachusetts	M-TN003	Vermo
Michigan	9958	Virginia
Minnesota	047-999-395	Washir
Mississippi	TN00003	West V
Missouri	340	Wiscor
Montana	CERT0086	Wyomi

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.18

L1221865

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06/01/20 15:14

		-		Billing Info	rmation:						A	nalvsis /	Contain	ner / Pre	servative			Chain o	f Custody	Page of	f
SCS Engineers - KS 8575 W. 110th Street Overland Park, KS 66210				8575 W.	s Payable 110th Stre d Park, KS (Pres Chk	1	m								- [-	Pace F	Analytical *	ovatior
Report to:				Email To:	Tonginger c	ers.com;jay.martin@ever			S										ebanon Rd uliet, TN 371	,	
Jason Franks			City/State			a sub budiciti	In Louis	a show	oPr									Phone: 6	515-758-585 300-767-585	600 CER	ŝ.
Project Description: Evergy - Montrose Generating Station		And the second second	ollected:				ease Cir MT C	191 X 121	Z- W										-758-5859	回洗器	5
Phone: 913-681-0030		roject # 168.18	1	n Tariha Tariha	Lab Project # AQUAOPKS-MON				125mlHDPE-NoPr	-HNO3								SDG #	Ul G0	771/865	5
Collected by (print): Whit Martin	Site/Facility ID #		4 	P.O. #					IHDPE	loPres							Acctnu		AOPKS		
Collected by (signature):	5		MUST Be Five (5 Day	Get	Quote # Date R	esults Need	ed		ld, F, S04)	6010 250miHDPE-HNO3	50miHDPE-NoPres							Prelogi	ate: T135 in: P769 06 - Jeff C	449	
Packed on Ice N Y X		hree Day		ay (nau only)	4	Std		No. of	s (C	- 60	500							PB:			
Sample ID	Comp/	Grab	Matrix *	Depth	Date	τ	me	Cntrs	Anions (Cld,	Ca	05.2							Shippe	nd Via: marks	Sample # (lab or	only)
MW-601	G		GW	T	5/21/	1. 12	25	3	∢ X	B X	X							an a			~
Л.W-602	1 1		GW	-	-/-//		20	3	x	X	X	E.A									0 0
AM-603			GW	1		and the second	.05	3	X	X	X										Ö
/IW-604		-+	GW				25	3	x	X	X								3		01
/W-605			GW	1			10	3	x	x	X										G5
1W-701			GW	1			10	3	x	x	x										- 9(
1W-702			GW			16	Suma Suma Suma Suma Suma Suma Suma Suma	3	X	x	x									and the first of a state of the first of the first of the state of the	37
1W-703			GW			15	05	3	X	x	X								<u>ab</u>		68
1W-704			GW	1		15	25	3	x	x	X										-00
1W-705	4	>	GW				00	3	X	x	X	1997						- Carga			- 19
Matrix: S - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay NW - WasteWater	emarks:						an a					pH _	3.8	Temp Other	Juse y grande	CC	C Seal I C Signed ttles ar	ple Rece Present/I 1/Accurat crive int	Intact: te: tact:	Y -	N N N N
DW - Drinking Water Sa DT - Other	uples reti UP5 I				Tr	acking#		Ì.							~	St. VC	fficient A Zero H	t volume <u>If Ap</u> Headspace	sent: plicable e:	* *	_N _N
Relinguished by : (Signature)		Date:	22/20		100	eleved by:	hill	bon		2-2	>	rip Blank)/ 1	S NO ICL / MBOH BR	Rž	D Screen	ion Corre a <0.5 mF	R/hr:		N
Relinquished by : (Signature)		Date:		Time:	Re	ceived by:	Signatu	ıre)			T	emp: 4 2.4±0	32.	Bottle	Received	teceived: If preservation required by Login: Date/Time					
Relinquished by : (Signature)		Date:	1 1 ⁷¹ - 11	Time:	Re	ceived for I	ab/by: (Signatu	1 Al			Date:	24	Time	245	-	old:			Conditions	

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annan an annan ann ann ann ann ann ann			Billing Info	rmation:			Γ			A	nalysis	/ Conta	niner / Pro	eservative	ġ		Chain of Cu	ustody	Page of
SCS Engineers - KS 8575 W. 110th Street		Accounts Payable 8575 W. 110th Stre				•	Pres Chk		12									2 ace A	nalytical" * to: Testing & imounti
Overland Park, KS 66210			Overlan	erland Park, KS 66210													l		
Report to: Jason Franks			Email To: jfranks@s	Email To: jfranks@scsengineers.com;jay.martin@eve				Pres.									Mount Juliet	, TN 3712	
Project Description: Evergy - Montrose Generating Station				• Ld	P	lease Ci	rcle: DET	E-Nol									Phone: 800-7	767-5859 3-5859	
Phone: 913-681-0030	Client Project 27213168.		a ".	Lab Project		ITROSE	E	125mlHDPE-NoPres	HNO3								SDG #	42	21865
Collected by (print): Whit Mortin	Site/Facility I	ty ID # P.O. #							HDPE-	oPres							Table #	AQU	OPKS
Collected by (signature):		Rush? (Lab MUST Be Notified)						F, SO4)	Ca - 6010 250mlHDPE-HNO3	250miHDPE-NoPres							Template:	Template: T135966 Prelogin: P769449	
Immediately Packed on los N Y X		y5 Day		Date R	esults Nee	ded	No.	Anions (Cld,	6010	SomiH							12065 Lebanor Mount Juliet, T Phone: 615-75 Phone: 800-76 Fax: 615-758-5 SDXG # Table # Acctnum: A Template: T	Jeff Ca	ar en
Sample ID	Comp/Grab	Matrix *	Depth	Date	1	Time	Catrs	nion	B, Ca -	TDS 2									Sample # (195 only)
MW-706	5	GW	T	5/21/	20 10	225	3	X	X	×									-11
MS/MSD		GW					3	X	×	×		Ļ					1		
DUPLICATE		GW			_		3	x	x	x	-		E. Jack						
						1													
		an a	<u> </u>						1. 17				12.74						
65 - Soil AIR - Air F - Filter GW - Groundwater B Bioassay NW - WasteWater	Remarks:					đ.					pH Flow		_ Temp _ Other		1.1	COC Seal COC Signe Bottles a	Present/Int ed/Accurate: arrive intac	act:	MP Y N Y N Y N
DI - Otner	Samples returned UPS FedEx			Tr	acking #		4									Sufficien VOA Zero	nt volume se <u>If Appli</u> Headspace:	nt: cable	_Y _N _Y _N
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Relinquished by : (Signature)	Da	te:	Time:	Re	ceived for	lab by: ((Signatu	ire)	11	C L	Date:	21	Time	QUE	5	Hold: Condition: NCF / OK			

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ANALYTICAL REPORT

SCS Engineers - KS

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

Report To:

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

Тс Ss Cn Sr ʹQc Gl ΆI Sc

Entire Report Reviewed By:

Jubb law

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1221866 DATE/TIME: 05/31/20 19:22

PAGE: 1 of 13

TABLE OF CONTENTS

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¹ Cp	
² Tc	
³ Ss	
⁴ Cn	
5	1

2	Ср
2 3 4	² Tc
5	³ Ss
5	⁴ Cn
6	Cn
7	⁵ Sr
7	
8	⁶ Qc
10	⁷ Gl
11	G
12	⁸ Al
13	
	⁹ Sc

ACCOUNT:
SCS Engineers - KS

Cp: Cover Page

Tc: Table of Contents Ss: Sample Summary **Cn: Case Narrative** Sr: Sample Results

GI: Glossary of Terms

Al: Accreditations & Locations Sc: Sample Chain of Custody

MW-506 L1221866-01 DUPLICATE L1221866-02 **Qc: Quality Control Summary**

Gravimetric Analysis by Method 2540 C-2011

Wet Chemistry by Method 9056A Metals (ICP) by Method 6010B

SDG: L1221866

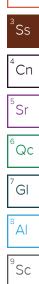
DATE/TIME: 05/31/20 19:22

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

			Collected by	Collected date/time	Received da	te/time
MW-506 L1221866-01 GW			Whit Martin	05/21/20 14:35	05/23/20 08	:45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
			Collected by	Collected date/time	Received da	te/time

DUPLICATE L1221866-02 GW			Whit Martin	05/21/20 14:35	05/23/20 08:	45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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



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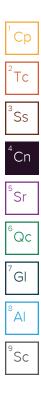
CASE NARRATIVE

*

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.

Jubb land

Jeff Carr Project Manager



SDG: L1221866 DATE/TIME: 05/31/20 19:22 PAGE:

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SAMPLE RESULTS - 01 L1221866

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср	
Analyte	ug/l		ug/l		date / time		 2	i
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	WG1483379	Tc	

Wet Chemistry by Method 9056A

Wet Chemistry b	y Method 9056A	L.					
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Chloride	69300		1000	1	05/28/2020 21:44	WG1482625	
luoride	ND		150	1	05/28/2020 21:44	WG1482625	
Sulfate	1780000		500000	100	05/28/2020 21:57	WG1482625	

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 09:37	WG1481523
Calcium	343000	V	1000	1	05/30/2020 09:37	WG1481523

SDG: L1221866

SAMPLE RESULTS - 02 L1221866

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l	ug/l		date / time		2
Dissolved Solids	2800000	50000) 1	05/28/2020 23:20	WG1483379	Tc

Wet Chemistry by Method 9056A

Wet Chemistry by Method 9056A										
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time		⁴ Cn			
Chloride	69200		1000	1	05/28/2020 23:01	<u>WG1482625</u>				
Fluoride	ND		150	1	05/28/2020 23:01	WG1482625	5			
Sulfate	1710000		500000	100	05/28/2020 23:14	WG1482625	Šr ا			

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:24	WG1481523
Calcium	350000		1000	1	05/30/2020 10:24	WG1481523

WG1483379

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3533316-1 05/2	(MB) R3533316-1 05/28/20 23:20								
	MB Result	MB Qualifier	MB MDL	MB RDL					
Analyte	ug/l		ug/l	ug/l					
Dissolved Solids	4000	J	2820	10000					

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05/28/20 23:20									
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	ug/l	ug/l	%	%					
Dissolved Solids	8800000	8250000	93.8	85.0-115					

ACCOUNT:	
SCS Engineers - KS	

PROJECT: 27213168.20

SDG: L1221866 DATE/TIME: 05/31/20 19:22 PAGE: 7 of 13

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

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Method Blank (MB)

Method Pidi	ik (ivid)				
(MB) R3533046-	1 05/28/20 14:51				1
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	_
Chloride	U		379	1000	
Fluoride	U		64.0	150	
Sulfate	U		594	5000	

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533	3046-3 05/28/2016:	10				
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte		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 05/28/2	(OS) L1221878-01 05/28/20 23:26 • (DUP) R3533046-8 05/28/20 23:39										
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits					
Analyte	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									
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	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					

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
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QUALITY CONTROL SUMMARY

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

DATE/TIME: 05/31/20 19:22

WG1481523

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221866-01,02

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Method Blank (MB)

Method Bidi	ik (IVID)					1 CD				
(MB) R3533429-1 05/30/20 09:32										
	MB Result	MB Qualifier	MB MDL	MB RDL	Г	2				
Analyte	ug/l		ug/l	ug/l		⁻Tc				
Boron	U		25.4	200						
Calcium	U		389	1000		³Ss				

Laboratory Control Sample (LCS)

(LCS) R3533429-2	05/30/20 09:34					
	Spike Amoun	t LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	ug/l	ug/l	%	%		
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)

Lizz 1000-01 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												8	ΑΙ	
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	Ľ	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	9	
Boron	1000	ND	1050	1050	97.4	96.6	1	75.0-125			0.766	20		Sc
Calcium	10000	343000	356000	354000	127	109	1	75.0-125	V		0.496	20		

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

(OS) • (MS) R3533429-6	(OS) • (MS) R3533429-6 05/30/20 09:51• (MSD) R3533429-7 05/30/20 09:54												
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits		
Analyte	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		

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GLOSSARY OF TERMS

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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).
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.

PROJECT: 27213168.20

SDG: L1221866 DATE/TIME: 05/31/20 19:22

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ACCREDITATIONS & LOCATIONS

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	Nebros
Alaska	17-026	Nebras
Arizona	AZ0612	New H
Arkansas	88-0469	New Je
California	2932	New M
Colorado	TN00003	New Ye
Connecticut	PH-0197	North (
Florida	E87487	North (
Georgia	NELAP	North (
Georgia ¹	923	North I
Idaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregor
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South
Kentucky ²	16	South I
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas
Maryland	324	Utah
Massachusetts	M-TN003	Vermo
Michigan	9958	Virginia
Minnesota	047-999-395	Washir
Mississippi	TN00003	West V
Missouri	340	Wiscor
Montana	CERT0086	Wyomi

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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L1221866

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SCS Engineers - KS				s Payable							Chain of Custody Page of						
3575 W. 110th Street Overland Park, KS 66210			1	110th Street d Park, KS 662	LO			V								- /- Face Netional (AII AIYUCAI Danter for Testing 8 Innovativ
Report to: Jason Franks			Email To: jfranks@se	franks@scsengineers.com;jay.martin@evergy.c								12065 Lebanon Ro Mount Juliet, TN 3 Phone: 615-758-56	7122				
Project Description: City/State Evergy - Montrose Generating Station Collected:			<u>1</u>	<u></u>	Please C PT MT (irelę:	PE-Nof									Phone: 800-767-56 Fax: 615-758-5859	859
Phone: 913-681-0030	Client Project 27213168.			Lab Project # AQUAOPKS-	MONTROS	E	125mlHDP	- 6010 250mlHDPE-HNO3								The second s	122(866 3034
collected by (print): Whit Martin	Site/Facility ID #			P.O. #				HDP	VoPre			8				Acctnum: AQUAOPKS	
Collected by (signature):	Rush? (Lab MUST Be Notified			Quote #	# # 250miHDPE-NoPres # 250miHDPE-NoPres										Prelogin: P76	Template: T166717 Prelogin: P769451	
mmediately Packed on ice N Y X	Next Da Two Da Three D	y 10 Da	r (Rad Only) ay (Rad Only)	Date Result	ults Needed		Anions (Cld,	- 6010	SomiH							PM: 206 - Jeff Carr PB:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Anion	B, Ca	TDS 2							Shipped Via: Remarks	Sample # (lab only)
AW-506	G	GW	The second	5-21-20	1435	3	X	X	X								-01
MW-506 MS/MSD	6	GW		5-21-20		3	X	X	x	and real							- 02
DUPLICATE	6	GW		5-21-20	1435	3	X	X	x			1.5					-93
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^s Matrix: SS - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay MW - WasteWater	Remarks:									pH Flow		_ Temp _ Other	de	COC Bot	Seal Pr Signed/ tles arr	le Receipt C esent/Intact Accurate: ive intact: tles used:	hecklist
DW - Drinking Water DT - Other	Samples returned UPSFedEx			Tracki										su: voz	ficient Sero He	volume sent: <u>If Applicab</u> adspace:	leN
Relinquished by : (Signature) Date: Tim 5/22/2 (1)			Time	Received	ed by: (Signa	Quor	5-	130		rip Blanl	Recei	The second second second second	s No A CL/Meol BR	RAI		on Correct/Ch <0.5 mR/hr:	ecked: Y_N Y_N
			Time	Receiv	ed by: (Signa	ture)	-		I	emp: 7	3.	C Bottle	s Received	i: Ifp	reservation	n required by Lo.	gin: Date/Time
Relinquished by : (Signature)	Da	te:	Time	Recei	ed for lab by	: (Signati	ure)	~	C	Date:	2/2	Time:	840	5 Hol	d;		Condition NCF / OK



ANALYTICAL REPORT

SCS Engineers - KS

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

Report To:

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

Тс Ss Cn Sr ʹQc Gl ΆI Sc

Entire Report Reviewed By:

Jubb law

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48 PAGE: 1 of 27

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Cp ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc ⁷Gl ⁸Al ⁹Sc

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

506 L1221868-01 GW			Collected by Whit Martin	Collected date/time 05/21/20 14:35	Received da 05/23/20 08	
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
DUPLICATE L1221868-02 GW			Collected by Whit Martin	Collected date/time 05/21/20 14:35	Received da 05/23/20 08	
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
601 L1221868-03 GW			Collected by Whit Martin	Collected date/time 05/21/20 12:25	Received da 05/23/20 08	
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
			Collected by	Collected date/time	Received da	te/time
602 L1221868-04 GW			Whit Martin	05/21/20 10:20	05/23/20 08	
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, Th
			Collected by	Collected date/time	Received da	te/time
603 L1221868-05 GW			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
Vetals (ICPMS) by Method 6020	WG1480615	1	05/26/20 18:21	05/26/20 22:06	LD	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
604 L1221868-06 GW			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
			Collected by	Collected date/time	Received da	
605 L1221868-07 GW			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

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48 ²Tc ³Ss ⁴Cn ⁵Sr ⁶Qc

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SAMPLE SUMMARY

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Metals (ICP) by Method 6010B WG1481523 1 05/29/2017:57 05/30/2010:50 Metals (ICPMS) by Method 6020 WG1480665 1 05/26/2018:21 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41 05/27/2018:41	me Received d 05/23/20 0	ved date/time /20 08:45
Marcary by Method 7470A WG1481594 1 05/26/20 18:15 05/27/20 08:53 Metals (ICP) by Method 6010B WG1481523 1 05/26/20 18:21 0	Analyst	lyst Location
Metals (ICP) by Method 60108 WG1481523 1 05/29/2017:57 05/30/2010:50 Metals (ICPMS) by Method 6020 WG1480615 1 05/26/2018:21 05/27/2015:05 Metals (ICP MS) by Method 6010B WG1481594 1 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21 05/26/2018:21	-	
Metals (ICPMS) by Method 6020 WGM80615 1 05/26/20 18:21 05/26/20 23:23 702 L1221868-09 GW Gallected by Whit Matrin Callected date/filme Callected date/filme	ABL	BL Mt. Juliet, T
Collected by Whit Martin Collected date/In 05/21/20 16:25 Method Batch Dilution Preparation Analysis Method Batch Dilution Preparation Analysis Method WG1481594 1 05/26/20 18:15 05/27/20 08:54 Method WG1481523 1 05/26/20 18:15 05/26/20 18:21 Method WG1481523 1 05/26/20 18:21 05/26/20 18:21 7O3 L1221868-10 GW Collected date/In Whit Martin 05/21/20 15:05 Method Batch Dilution Preparation Analysis Method Batch Dilution Preparation Analysis Method Batch Dilution Preparation Analysis Method WG1481534 1 05/26/20 18:15 05/27/20 08:56 Method WG1481544 1 05/26/20 18:15 05/26/20 23:44 Method WG1481544 1 05/26/20 18:21 05/26/20 23:44 7O4 L1221868-11 GW WG1481544 1 05/26/20 18:21 05/26/20 23:44 Method Batch Dilution Preparation Analysis Method Batch Dilution Preparation 44et/Ime <	EL	L Mt. Juliet, T
TO2 L1221868-09 Whit Martin 05/21/20 16:25 Method Batch Dilution Preparation date/time Analysis date/time Metrury by Method 7470A WG1481594 1 05/26/20 18:50 05/27/20 08:54 Metals (ICP MS) by Method 6000B WG1480615 1 05/26/20 18:21 05/26/20 23:41 703 L1221868-10 GW GW Method Batch Dilution Preparation date/time Analysis date/time Wethod 703 L1221868-10 GW GW <td>LD</td> <td>D Mt. Juliet, Tl</td>	LD	D Mt. Juliet, Tl
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PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48

CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

SDG: L1221868 DATE/TIME: 05/31/20 15:48 PAGE: 5 of 27

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

SAMPLE RESULTS - 01 L1221868



Ср

Metals (ICP) by Method 6010B

							l'Cn l
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Lithium	205		15.0	1	05/30/2020 09:48	WG1481523	⁻Tc
Molybdenum	ND		5.00	1	05/30/2020 09:48	WG1481523	

³ Ss
⁴ Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
°Sc

SDG: L1221868

DATE/TIME: 05/31/20 15:48

SAMPLE RESULTS - 02



Ср

Τс

Metals (ICP) by Method 6010B

Result	Qualifier	RDL	Dilution	Analysis	Batch		
ug/l		ug/l		date / time			2
204		15.0	1	05/30/2020 10:27	WG1481523		-
ND		5.00	1	05/30/2020 10:27	WG1481523		
	ug/l 204	ug/l 204	ug/l ug/l 204 15.0	ug/l ug/l 204 15.0 1	ug/l ug/l date / time 204 15.0 1 05/30/2020 10:27	ug/l ug/l date / time 204 15.0 1 05/30/2020 10:27 WG1481523	ug/l ug/l date / time 204 15.0 1 05/30/2020 10:27 WG1481523

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PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48 PAGE: 7 of 27

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

SAMPLE RESULTS - 03 L1221868



Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	05/27/2020 08:37	WG1481594
Metals (ICP) by N	1ethod 6010B Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l	quanner	ug/l	Dilution	date / time	Daten
•			-	1		WC1401E22
Barium	9.73		5.00	1	05/30/2020 10:30	WG1481523
Chromium	ND		10.0	1	05/30/2020 10:30	WG1481523
Cobalt	ND		10.0	1	05/30/2020 10:30	WG1481523
Lithium	286		15.0	1	05/30/2020 10:30	WG1481523
Molybdenum	ND		5.00	1	05/30/2020 10:30	WG1481523

Metals (ICPMS) by Method 6020

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Antimony	ND		4.00	1	05/26/2020 23:09	WG1480615
Arsenic	ND		2.00	1	05/26/2020 23:09	WG1480615
Beryllium	ND		2.00	1	05/26/2020 23:09	WG1480615
Cadmium	1.38		1.00	1	05/26/2020 23:09	WG1480615
Lead	ND		5.00	1	05/26/2020 23:09	WG1480615
Selenium	4.99		2.00	1	05/26/2020 23:09	WG1480615
Thallium	ND		2.00	1	05/26/2020 23:09	WG1480615

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

SAMPLE RESULTS - 04



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Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Mercury	ND		0.200	1	05/27/2020 08:39	WG1481594	² T(

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Barium	20.0		5.00	1	05/30/2020 10:38	WG1481523	
Chromium	ND		10.0	1	05/30/2020 10:38	WG1481523	
Cobalt	110		10.0	1	05/30/2020 10:38	WG1481523	
Lithium	85.9		15.0	1	05/30/2020 10:38	WG1481523	
Molybdenum	ND		5.00	1	05/30/2020 10:38	<u>WG1481523</u>	
Metals (ICPMS) b	by Method 6020						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Antimony	ND		4.00	1	05/26/2020 23:13	WG1480615	
Arconie	F 24		2.00	1	05/00/0000 00:10	WC1400C1E	

Antimony	ND	4.00	1	05/26/2020 23:13	WG1480615	Ŭ
Arsenic	5.24	2.00	1	05/26/2020 23:13	WG1480615	L
Beryllium	ND	2.00	1	05/26/2020 23:13	WG1480615	9
Cadmium	ND	1.00	1	05/26/2020 23:13	WG1480615	
Lead	ND	5.00	1	05/26/2020 23:13	WG1480615	
Selenium	ND	2.00	1	05/26/2020 23:13	WG1480615	
Thallium	ND	2.00	1	05/26/2020 23:13	WG1480615	

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

SAMPLE RESULTS - 05 L1221868

Mercury by Method 7470A

	Decult	Qualifian	וחח	Dilution	Amaluaia	Datah	
Metals (ICP) by	Method 6010B						 ³ Ss
Mercury	ND		0.200	1	05/27/2020 08:41	<u>WG1481594</u>	⁻ Tc
Analyte	ug/l		ug/l		date / time		2
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
wichedry by wic							^{1}Cn

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		4
Barium	9.07		5.00	1	05/30/2020 10:41	WG1481523	
Chromium	ND		10.0	1	05/30/2020 10:41	WG1481523	5
Cobalt	35.7		10.0	1	05/30/2020 10:41	WG1481523	٣S
Lithium	131		15.0	1	05/30/2020 10:41	WG1481523	
Molybdenum	ND		5.00	1	05/30/2020 10:41	<u>WG1481523</u>	⁶ C

Metals (ICPMS) by Method 6020

Metals (ICPMS) I	by Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	- GI
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 22:06	WG1480615	ĨA
Arsenic	ND		2.00	1	05/26/2020 22:06	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 22:06	WG1480615	°Sc
Cadmium	3.52		1.00	1	05/26/2020 22:06	WG1480615	50
Lead	ND		5.00	1	05/26/2020 22:06	WG1480615	
Selenium	27.7		2.00	1	05/26/2020 22:06	WG1480615	
Thallium	ND		2.00	1	05/26/2020 22:06	WG1480615	

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

SAMPLE RESULTS - 06 L1221868



Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	`Ср
Analyte	ug/l		ug/l		date / time		2
Mercury	ND		0.200	1	05/27/2020 08:43	<u>WG1481594</u>	² Tc

Metals (ICP) by Method 6010B

Metals (ICP) by Method 6010B									
Result <u>Qualifier</u> RDL Dilution Analysis <u>Batch</u>									
Analyte	ug/l		ug/l		date / time		4		
Barium	14.5		5.00	1	05/30/2020 10:44	WG1481523			
Chromium	ND		10.0	1	05/30/2020 10:44	WG1481523	5		
Cobalt	ND		10.0	1	05/30/2020 10:44	WG1481523			
Lithium	106		15.0	1	05/30/2020 10:44	WG1481523			
Molybdenum	ND		5.00	1	05/30/2020 10:44	WG1481523	6		

Metals (ICPMS) by Method 6020

Metals (ICPMS) b	by Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	— ÍGI
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 23:16	WG1480615	Ĕ ĂI
Arsenic	ND		2.00	1	05/26/2020 23:16	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 23:16	WG1480615	°Sc
Cadmium	1.04		1.00	1	05/26/2020 23:16	WG1480615	50
Lead	ND		5.00	1	05/26/2020 23:16	WG1480615	
Selenium	ND		2.00	1	05/26/2020 23:16	WG1480615	
Thallium	ND		2.00	1	05/26/2020 23:16	WG1480615	

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

SAMPLE RESULTS - 07 L1221868



Mercury by Method 7470A

Metals (ICP) by Method 6010B

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

Metals (ICPMS) by Method 6020

Metals (ICPMS) b	by Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	- GI
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 23:20	WG1480615	ĨAĬ
Arsenic	ND		2.00	1	05/26/2020 23:20	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 23:20	WG1480615	⁹ Sc
Cadmium	2.25		1.00	1	05/26/2020 23:20	WG1480615	00
Lead	ND		5.00	1	05/26/2020 23:20	WG1480615	
Selenium	ND		2.00	1	05/26/2020 23:20	WG1480615	
Thallium	ND		2.00	1	05/26/2020 23:20	WG1480615	

SDG: L1221868

SAMPLE RESULTS - 08

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Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Mercury	0.476		0.200	1	05/27/2020 08:53	WG1481594	2

Metals (ICI) by Method 0010b							
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		4
Barium	8.50		5.00	1	05/30/2020 10:50	WG1481523	
Chromium	ND		10.0	1	05/30/2020 10:50	WG1481523	5
Cobalt	30.9		10.0	1	05/30/2020 10:50	WG1481523	55
Lithium	197		15.0	1	05/30/2020 10:50	WG1481523	
Molybdenum	ND		5.00	1	05/30/2020 10:50	WG1481523	6
Metals (ICPMS) b	y Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 23:23	WG1480615	P
Arsenic	ND		2.00	1	05/26/2020 23:23	WG1480615	

Analyte	ug/l	ug/l		date / time	
Antimony	ND	4.00	1	05/26/2020 23:23	WG1480615
Arsenic	ND	2.00	1	05/26/2020 23:23	WG1480615
Beryllium	2.11	2.00	1	05/26/2020 23:23	WG1480615
Cadmium	5.07	1.00	1	05/26/2020 23:23	WG1480615
Lead	ND	5.00	1	05/26/2020 23:23	WG1480615
Selenium	7.89	2.00	1	05/26/2020 23:23	WG1480615
Thallium	ND	2.00	1	05/26/2020 23:23	WG1480615

Thallium

ND

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

SAMPLE RESULTS - 09



Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Mercury	ND		0.200	1	05/27/2020 08:54	<u>WG1481594</u>	
Metals (ICP) by	Method 6010B						3
	Result	Qualifier	RDL	Dilution	Analysis	Batch	

	Result	Quaimer	KDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time	4	Cn
Barium	11.9		5.00	1	05/30/2020 10:53	<u>WG1481523</u>	~
Chromium	ND		10.0	1	05/30/2020 10:53	WG1481523	
Cobalt	ND		10.0	1	05/30/2020 10:53	<u>WG1481523</u> ⁵ S	sr
Lithium	51.9		15.0	1	05/30/2020 10:53	WG1481523	
Molybdenum	ND		5.00	1	05/30/2020 10:53	WG1481523 ⁶ G	λ
Matala (ICDMC) by Math	ad 6020						
Metals (ICPMS) by Meth		Qualifier		Dilution	Analysis	Patch 7	3I
	Result	Qualifier	RDL	Dilution	Analysis	Batch	3I
Analyte	Result ug/l	Qualifier	ug/l	Dilution	date / time	Batch	_
Metals (ICPMS) by Meth Analyte Antimony Arsenic	Result	Qualifier		Dilution 1 1		Batch 7 G WG1480615 8 A WG1480615 4 A	_
Analyte Antimony	Result ug/l ND	Qualifier	ug/l 4.00	Dilution 1 1 1	date / time 05/26/2020 23:41	Batch Image: Second system WG1480615 # WG1480615 #	λI
Analyte Antimony Arsenic	Result ug/I ND 3.09	Qualifier	ug/l 4.00 2.00	Dilution 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	date / time 05/26/2020 23:41 05/26/2020 23:41	Batch WG1480615 WG1480615	41
Analyte Antimony Arsenic Beryllium	Result ug/l ND 3.09 ND	Qualifier	ug/l 4.00 2.00 2.00	Dilution 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	date / time 05/26/2020 23:41 05/26/2020 23:41 05/26/2020 23:41	Batch WG1480615 WG1480615 WG1480615	λI
Analyte Antimony Arsenic Beryllium Cadmium	Result ug/l ND 3.09 ND ND	Qualifier	ug/l 4.00 2.00 2.00 1.00	Dilution	date / time 05/26/2020 23:41 05/26/2020 23:41 05/26/2020 23:41 05/26/2020 23:41	Batch 8 WG1480615 8 WG1480615 9 WG1480615 9 WG1480615 9	λI

05/26/2020 23:41

WG1480615

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

SAMPLE RESULTS - 10 L1221868



Mercury by Method 7470A

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Cp
Analyte	ug/l		ug/l		date / time		2
Mercury	ND		0.200	1	05/27/2020 08:56	WG1481594	Tc
Metals (ICP) by	Method 6010B						3
							SS

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Barium	35.2		5.00	1	05/30/2020 10:56	WG1481523
Chromium	ND		10.0	1	05/30/2020 10:56	WG1481523
Cobalt	ND		10.0	1	05/30/2020 10:56	WG1481523
Lithium	58.4		15.0	1	05/30/2020 10:56	WG1481523
Molybdenum	ND		5.00	1	05/30/2020 10:56	WG1481523

Metals (ICPMS) by Method 6020

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Antimony	ND		4.00	1	05/26/2020 23:44	WG1480615	
Arsenic	ND		2.00	1	05/26/2020 23:44	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 23:44	WG1480615	
Cadmium	ND		1.00	1	05/26/2020 23:44	WG1480615	
ead	ND		5.00	1	05/26/2020 23:44	WG1480615	
Selenium	ND		2.00	1	05/26/2020 23:44	WG1480615	
[hallium	ND		2.00	1	05/26/2020 23:44	WG1480615	

SAMPLE RESULTS - 11 L1221868

Collected date/time: 05/21/20 15:25 Mercury by Method 7470A

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Mercury	ND		0.200	1	05/27/2020 08:58	WG1481594	Tc

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
arium	52.6		5.00	1	05/28/2020 11:32	WG1480612
hromium	ND		10.0	1	05/28/2020 11:32	WG1480612
balt	ND		10.0	1	05/28/2020 11:32	WG1480612
hium	54.5		15.0	1	05/28/2020 11:32	WG1480612
lolybdenum	ND		5.00	1	05/28/2020 11:32	WG1480612

Metals (ICPMS) by Method 6020

Metals (ICPMS) b	y Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	— [`C
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 23:48	WG1480615	Ĕ Å
Arsenic	13.7		2.00	1	05/26/2020 23:48	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 23:48	WG1480615	9
Cadmium	ND		1.00	1	05/26/2020 23:48	WG1480615	Ľ
Lead	ND		5.00	1	05/26/2020 23:48	WG1480615	
Selenium	ND		2.00	1	05/26/2020 23:48	WG1480615	
Thallium	ND		2.00	1	05/26/2020 23:48	WG1480615	

SDG: L1221868 Selenium

Thallium

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

SAMPLE RESULTS - 12 L1221868



Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Mercury	ND		0.200	1	05/27/2020 09:00	WG1481594	
Metals (ICP) by N	lethod 6010B						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Barium	54.7		5.00	1	05/28/2020 15:31	WG1482049	
Chromium	ND		10.0	1	05/28/2020 15:31	WG1482049	
Cobalt	ND		10.0	1	05/28/2020 15:31	WG1482049	
Lithium	69.5		15.0	1	05/28/2020 15:31	WG1482049	
			F 00	1	05/20/2020 15:21	WC1492040	
Molybdenum	ND		5.00	1	05/28/2020 15:31	<u>WG1482049</u>	
Molybdenum Metals (ICPMS) b			5.00	I	05/28/2020 15:31	<u>WU402049</u>	
		Qualifier	S.00	Dilution	Analysis	Batch	
	by Method 6020	Qualifier					
Metals (ICPMS) b	by Method 6020 Result	Qualifier	RDL		Analysis		
Metals (ICPMS) b	by Method 6020 Result ug/l	Qualifier	RDL ug/l		Analysis date / time	Batch	
Metals (ICPMS) b Analyte Antimony	by Method 6020 Result ug/l ND	Qualifier	RDL ug/l 4.00		Analysis date / time 05/26/2020 23:51	Batch WG1480615	
Metals (ICPMS) b Analyte Antimony Arsenic	ND 6.47	Qualifier	RDL ug/l 4.00 2.00		Analysis date / time 05/26/2020 23:51 05/26/2020 23:51	Batch WG1480615 WG1480615	

05/26/2020 23:51

05/26/2020 23:51

WG1480615

WG1480615

SAMPLE RESULTS - 13 L1221868



Collected date/time: 05/21/20 10:25 Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 'Ср
Analyte	ug/l	Guanner	ug/l	Dilation	date / time	bach	2
Mercury	ND		0.200	1	05/27/2020 09:02	WG1481594	⁻Tc

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Barium	30.4		5.00	1	05/28/2020 15:33	WG1482049
Chromium	ND		10.0	1	05/28/2020 15:33	WG1482049
Cobalt	10.3		10.0	1	05/28/2020 15:33	WG1482049
Lithium	47.2		15.0	1	05/28/2020 15:33	WG1482049
Molybdenum	ND		5.00	1	05/28/2020 15:33	WG1482049

Metals (ICPMS) by Method 6020

Metals (ICPMS) I	by Method 6020						7
	Result	Qualifier	RDL	Dilution	Analysis	Batch	GI
Analyte	ug/l		ug/l		date / time		8
Antimony	ND		4.00	1	05/26/2020 23:54	WG1480615	ĬĂ
Arsenic	12.4		2.00	1	05/26/2020 23:54	WG1480615	
Beryllium	ND		2.00	1	05/26/2020 23:54	WG1480615	°Sc
Cadmium	ND		1.00	1	05/26/2020 23:54	WG1480615	50
Lead	ND		5.00	1	05/26/2020 23:54	WG1480615	
Selenium	ND		2.00	1	05/26/2020 23:54	WG1480615	
Thallium	ND		2.00	1	05/26/2020 23:54	WG1480615	

WG1481594

Mercury by Method 7470A

QUALITY CONTROL SUMMARY L1221868-03,04,05,06,07,08,09,10,11,12,13

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Method Blank (MB)

(MB) R3532052-1 0	5/27/20 08:07			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R3532052-4 05/2	7/20 10:11				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Mercury	3.00	2.70	90.1	80.0-120	

PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48 PAGE: 19 of 27 Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221868-11

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Method Blank (MB)

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

(IVID) R3532762-1 U	5/26/20 10.11				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	ug/l		ug/l	ug/l	Tc
Barium	U		0.895	5.00	
Chromium	U		5.00	10.0	³ Ss
Cobalt	U		0.807	10.0	00
Lithium	U		5.74	15.0	4
Molybdenum	U		1.04	5.00	Cn

Laboratory Control Sample (LCS)

(LCS) R3532782-2	05/28/20 10:13				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
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	

DATE/TIME: 05/31/20 15:48

PAGE: 20 of 27 Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221868-01,02,03,04,05,06,07,08,09,10

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

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

Laboratory Control Sample (LCS)

(LCS) R3533429-2 0	05/30/20 09:34				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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	

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 09:4	43 • (MSD) R353	33429-5 05/3	30/20 09:45						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	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)

/30/20 09:48 • (MS)	R3533429-6 (05/30/20 09:5	51 • (MSD) R353	3429-7 05/30)/20 09:54						
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	%	%		%			%	%
1000	10.7	981	973	97.1	96.3	1	75.0-125			0.813	20
1000	ND	939	942	93.9	94.2	1	75.0-125			0.368	20
1000	ND	1040	1030	104	103	1	75.0-125			0.908	20
1000	205	1150	1140	94.0	93.6	1	75.0-125			0.376	20
1000	ND	980	981	98.0	98.1	1	75.0-125			0.151	20
	Spike Amount ug/l 1000 1000 1000 1000 1000	Spike Amount Original Result ug/l 1000 10.7 1000 ND 1000 ND 1000 205	Spike Amount Original Result MS Result ug/l ug/l ug/l 1000 10.7 981 1000 ND 939 1000 ND 1040 1000 205 1150	Spike Amount Original Result MS Result MSD Result ug/l ug/l ug/l ug/l 1000 10.7 981 973 1000 ND 939 942 1000 ND 1040 1030 1000 205 1150 1140	Spike Amount ug/l Original Result ug/l MS Result ug/l MSD Result ug/l MS Rec. ug/l 1000 10.7 981 973 97.1 1000 ND 939 942 93.9 1000 ND 1040 1030 104 1000 205 1150 1140 94.0	ug/l ug/l ug/l ug/l % 1000 10.7 981 973 97.1 96.3 1000 ND 939 942 93.9 94.2 1000 ND 1040 1030 104 103 1000 205 1150 1140 94.0 93.6	Spike Amount Original Result MS Result MSD Result MSD Rec. MSD Rec. Dilution ug/l ug/l ug/l ug/l % % % 1000 10.7 981 973 97.1 96.3 1 1000 ND 939 942 93.9 94.2 1 1000 ND 1040 1030 104 103 1 1000 205 1150 1140 94.0 93.6 1	Spike Amount ug/l Original Result ug/l MS Result ug/l MSD Result ug/l MS Result ug/l MSD Rec. MSD Rec. Dilution Rec. Limits % 1000 10.7 981 973 97.1 96.3 1 75.0-125 1000 ND 939 942 93.9 94.2 1 75.0-125 1000 ND 1040 1030 104 103 1 75.0-125 1000 205 1150 1140 94.0 93.6 1 75.0-125	Spike Amount ug/l Original Result ug/l MS Result ug/l MS D Result ug/l MS D Result ug/l MS D Result ug/l MSD Result ug/l MSD Result ug/l MSD Result ug/l MSD Result ug/l Dilution ug/l Resc. Limits ug/l MS Qualifier 1000 10.7 981 973 97.1 96.3 1 75.0125 1000 ND 939 942 93.9 94.2 10 75.0125 1000 ND 1040 1030 104 103 1 75.0125 1000 205 1160 1140 94.0 93.6 1 75.0125	Spike Amount ug/lOriginal Result ug/lMS Result ug/lMS Desult ug/lMS Rec.MSD Rec.Dilution %Rec. Limits %MS Qualifier MS QualifierMSD Qualifier MSD Qualifier100010.798197397.196.3175.0-125	Spike Amount ug/lOriginal Result ug/lMS Result ug/lMS Result ug/lMS Rec.MSD Rec.Dilution Rec. Limits %MS Qualifier MSD QualifierMSD Qualifier RPD %RPD %100010.798197397.196.3175.0-1250.8131000ND93994293.994.2175.0-1250.9631000ND10401030104103175.0-1250.90810002051160114094.093.6175.0-1250.376

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221868-12,13

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Method Blank (MB)

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

	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	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	

Laboratory Control Sample (LCS)

(LCS) R3532811-2 0	5/28/20 15:11				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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	

DATE/TIME: 05/31/20 15:48 Metals (ICPMS) by Method 6020

QUALITY CONTROL SUMMARY L1221868-03,04,05,06,07,08,09,10,11,12,13

MB Qualifier ME	B MDL MB RD
ug	g/l ug/l
1.3	32 4.00
0.7	.735 2.00
0.4	.454 2.00
0.4	.478 1.00
2.4	49 5.00
0.6	.657 2.00
0.4	.460 2.00
	1. 1. 0. 0. 0. 0. 2. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.

Laboratory Control Sample (LCS)

(LCS) R3531912-2 05	/26/20 22:02				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	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

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GLOSSARY OF TERMS

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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

PROJECT: 27213168.20

SDG: L1221868 DATE/TIME: 05/31/20 15:48

ACCREDITATIONS & LOCATIONS

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	Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Je
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North C
Florida	E87487	North C
Georgia	NELAP	North C
Georgia ¹	923	North D
ldaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregon
lowa	364	Pennsy
Kansas	E-10277	Rhode I
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West Vi
Missouri	340	Wiscons
Montana	CERT0086	Wyomir

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico 1	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.20

L1221868

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SCS Engineers - KS 8575 W. 110th Street			Account 8575 W.	Billing Information: Accounts Payable 8575 W. 110th Street Overland Park, KS 66210				12	62	Analysis	Conta	iner 7 Pr	eservative		-	Chain of Custody	Page of Analytical *
Overland Park, KS 66210		,												l i			
Report to: J ason Franks			Email To: jfranks@s	csengineer	rs.com;ja	y.martin@	evergy.c		03							12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58	
Project Description: Evergy - Montrose Generating Station	de la sel	City/State Collected:	4			Please O PT MT	CT ET	m	H							Phone: 800-767-58 Fax: 615-758-5859	
Phone: 913-681-0030	Client Project 27213168.			Lab Proj		MONTRO		250mlHDPE-HNO3	250mlHDPE-HNO3							G	/221868 035
Collected by (print): Whit + Martin	Site/Facility I).#		P.O. #		in a la compañía Se com		IHOPI	IV 250							Tab Acctnum: AQU	and a second
Collected by (signature):	Same Di Next Da	Rush? (Lab MUST Be Notified) Qu Same Day Flve Day Next Day 5 Day (Rad Only)				s N ∳ eded		6010 250r	CCR APP IV						Template: T16 Prelogin: P77 PM: 206 - Jeff C		0363
mmediately Packed on Ice N Y X	Two Day Two Day Three D		ay (Rad Only)		Sto	d	No. of	1							PB:		
Sample ID	Comp/Grab	Matrix *	Depth	Da	ate	Time	Cntrs	Li, Mo	Metals							Shipped Via: Remarks	Sample # (lab only)
06	Grah	GW	1	16-7	(-20	1430	1	X								-	- 9]
06 MS/MSD	Grab	GW				146	1	x							Turning		- 0
UPLICATE	Grab	GW	1	1		1070	1	X					-				- 01
01	Gim	GW			4.	1225	1		X								.9
02	1	GW		11		100	7 1		X								- 84
03		GW				120	5 1		X							1	- 95
04		GW		1		1325	1		X							1	- 06
05		GW	1		1	141	01		X								.97
01		GW	-		11	111	1		X								- 98
02	VC	GW			1	1625	1		x						1		.0
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B Bioassay WW - WasteWater						netals-Sb,	As,Be,C	d,Pb,S	e,TI 7470	pH Temp Flow Other				Sample Receipt Checklise CoC Seal Present/Intact: MP Y _N CoC Signed/Accurate: YY _N Bottles arrive intact: YY _N Correct bottles used: _Y _N Sufficient volume sent: _Y _N			
W - Drinking Water DT - Other	via: Courier			Trackin	g.#							~	Suffic	cient	volume sent: If Applicabl adspace:		
telinguished by : (Signature)	Date: Time:			1,200 1/1/ 10 -					2-20 300	Trip Blan	k Recei	J	es / No HCE / MeoH TBR	Preser	rvatio	<pre>correct/Che <0.5 mR/hr:</pre>	cked: YNN
Relinquished by : (Signature)	Da	te:	Time		Received by: (Signature)					Temp: V Z.Y±C	53.4	C Bott		If prese	ervation	n required by Log	n: Date/Time
telinquished by : (Signature)	Da	te:	Time:		111	d for lab by	: (Signati	(me)/	1	Date:	2/20	Tim	45	Hold:			Condition: NCF / 0

SCS Engineers - KS		Billing Information:							Analysis	Conta	iner / Preservative	Chain of Custody Page of					
8575 W. 110th Street Overland Park, KS 66210		Accounts Payable 8575 W. 110th Street Overland Park, KS 66210			8575 W. 110th Street				Pres Chk	62	12						Analytical [®] Inter for Testing 8 Innovation
Report to: Jason Franks			Email To: jfranks@s	csengineers.com	om:lay.martin@eve			03					12065 Lebanon Rd Mount Juliet, TN 37				
Project Description: Evergy - Montrose Generating Station		City/State Collected:	Laure stree white	<u>.115t</u>	Please Ci PT MT C	rcle:	m	E-HNC					Phone: 615-758-58 Phone: 800-767-58 Fax: 615-758-5859				
Phone: 913-681-0030	Client Project 27213168.			Lab Project # AQUAOPKS	-MONTROSI	E	ONH-3	250miHDPE-HNO3					SDG #	1221868			
Collected by (print): Whit Martin	Site/Facility II	D#		P.O. #			250miHDPE-HNO3	V 250r					Table # Acctnum: AQI	JAOPKS			
Collected by (signature):	Same D Next Da Two Da	h? (Lab MUST Be Notified) me Day Five Day ext Day 5 Day (Rad Only) vo Day 10 Day (Rad Only)		Quote # Date Resu	bte # Date Results Needed		6010 250r	- CCR APP IV					Template: T16 Prelogin: P77 PM: 206 - Jeff (PB:	0363			
Packed on Ice N Y	Comp/Grab	Matrix *	Depth	Date	Time	of Cntrs	- OW	Metals -					Shipped Via:	Sample # (lab only)			
03	T	GW	T	5/21/20	11500	1	Ľ,	≥ X									
/04		GW		17/21/20	1505	1		x						-10			
05	and the second second second	GW	+		1220	4 1		X	- 74-1 LPM					-(]			
706	Can Re	GW			1029	1		X						-13			
	P																
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	 marks:CCR AP tals - Hg	V 6010 M	etals-Ba,Cr	 ,Co,Li,Mo 6020) metals-Sb,A	s,Be,C	d,Pb,Se	,TI 7470	рH Flow		_ Temp	COC Sea COC Sign Bottles	Sample Receipt Ch 1 Present/Intact: ned/Accurate: arrive intact:	ecklist Np_Y_N _Y_N _Y_N _Y_N			
DW - Drinking Water Sar	via: Courier		Track	ing.#							Correct bottles used: Sufficient volume sent: If Applicable VOA Zero Headspace: Y N						
Relignuished by : (Signature)					ed by: (Signati			22-28 1300	Trip Bla	nk Recei	ved: Yes / No HCL / MeoH TBR	Preserva	ation Correct/Che een <0.5 mR/hr:	cked: Y N			
Relinquished by : (Signature)	Da	ite:	Time	: Recei	ved by: (Signatu	ure)			Temp: Z.42	6-2	C Bottles Received:	If preserv	ation required by Log	n: Date/Time			
Relinquished by : (Signature)	Da	ite:	Time	Recei	ved for lab by:	(Signatu	ye/]	Date: 5/2	21	Time:	Hold:		Condition: NCF / OK			



ANALYTICAL REPORT

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1221882 05/23/2020 27213167.16 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.

ACCOUNT: SCS Engineers - KS

PROJECT: 27213167.16

SDG: L1221882 DATE/TIME: 06/24/20 10:34

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Cp: Cover Page

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SDG: L1221882

DATE/TIME: 06/24/20 10:34

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

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	SAMPLES					
506 L1221882-01 Non-Potable Water			Collected by Whit Martin	Collected date/time 05/21/20 14:35	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
			Collected by Whit Martin	Collected date/time 05/21/20 12:25	Received da 05/23/20 08	
601 L1221882-02 Non-Potable Water			with widitan			
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 da 05/23/20 08	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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 da 05/23/20 08	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
			Collected by	Collected date/time	Received da	te/time
604 L1221882-05 Non-Potable Water			Whit Martin	05/21/20 13:25	05/23/20 08	3:45
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 da 05/23/20 08	
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

ACCOUNT: SCS Engineers - KS PROJECT: 27213167.16

SDG: L1221882 DATE/TIME: 06/24/20 10:34

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

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701 L1221882-07 Non-Potable Water			Collected by Whit Martin	Collected date/time 05/21/20 17:10	Received da 05/23/20 08	
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
702 11221002 00 Nen Deteble Water			Collected by Whit Martin	Collected date/time 05/21/20 17:25	Received da 05/23/20 08	
702 L1221882-08 Non-Potable Water	Batch	Dilution	Preparation	Analysis	Analyst	Location
viction	Batch	Dilution	date/time	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 da 05/23/20 08	
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 da 05/23/20 08	
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
			Collected by	Collected date/time	Received da	te/time
705 L1221882-11 Non-Potable Water			Whit Martin	05/21/20 13:00	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
700 14004000 40 New Detable Weter			Collected by Whit Martin	Collected date/time 05/21/20 10:25	Received da 05/23/20 08	
706 L1221882-12 Non-Potable Water						
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

PROJECT: 27213167.16

SDG: L1221882 DATE/TIME: 06/24/20 10:34

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

DUPLICATE L1221882-13 Non-Potable Water			Collected by Whit Martin	Collected date/time 05/21/20 00:00	Received da 05/23/20 08	
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



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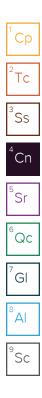
SDG: L1221882 DATE/TIME: 06/24/20 10:34

CASE NARRATIVE

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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



SDG: L1221882 DATE/TIME: 06/24/20 10:34

PAGE:

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

SAMPLE RESULTS - 01 L1221882

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Radiochemistry by Method 904

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

Radiochemistry by Method Calculation

Radiochemistry by Method Calculation									
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch		Cn	
Analyte	pCi/l		+ / -	pCi/l	date / time			5	
Combined Radium	1.21		0.797	1.09	06/19/2020 14:30	WG1493951		Sr	

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

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

SAMPLE RESULTS - 02



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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cp
Analyte	pCi/l		+ / -	pCi/l	date / time		2
RADIUM-228	-0.114		0.578	0.947	06/19/2020 14:30	WG1489466	Tc
(T) Barium	110			62.0-143	06/19/2020 14:30	WG1489466	
(T) Yttrium	111			79.0-136	06/19/2020 14:30	WG1489466	³ Cc

Radiochemistry by Method Calculation

	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	C	'n
Analyte	pCi/l		+/-	pCi/l	date / time		. ج	
Combined Radium	0.618		0.865	1.12	06/19/2020 14:30	WG1493951	٣S	r

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

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

SAMPLE RESULTS - 03

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	1.91		0.627	0.992	06/19/2020 14:30	WG1489466	1
(T) Barium	113			62.0-143	06/19/2020 14:30	WG1489466	
(T) Yttrium	104			79.0-136	06/19/2020 14:30	WG1489466	³ c

Radiochemistry by Method Calculation

Radiochemistry by Method Calculation									
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch			
Analyte	pCi/l		+/-	pCi/l	date / time			5	
Combined Radium	1.98		0.820	1.31	06/19/2020 14:30	WG1493951		ँSr	

	Result	Qualifier U	ncertainty	MDA	Analysis Date	Batch
Analyte	pCi/l	+	/ -	pCi/l	date / time	
RADIUM-226	0.0693	0	.193	0.316	06/19/2020 07:25	<u>WG1493951</u>
(T) Barium-133	110			30.0-143	06/19/2020 07:25	WG1493951

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

SAMPLE RESULTS - 04

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	0.726		0.528	0.9	06/19/2020 14:30	WG1489466	Τ
(T) Barium	103			62.0-143	06/19/2020 14:30	WG1489466	
(T) Yttrium	110			79.0-136	06/19/2020 14:30	WG1489466	³ C

Radiochemistry by Method Calculation

	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	 Cn
Analyte	pCi/l		+/-	pCi/l	date / time		5
Combined Radium	0.770		0.716	1.23	06/19/2020 14:30	WG1493951	ଁSr

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

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

SAMPLE RESULTS - 05 L1221882

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cp
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	-0.0617		0.596	1.06	06/19/2020 14:30	WG1489466	Tc
(T) Barium	86.1			62.0-143	06/19/2020 14:30	WG1489466	
(T) Yttrium	102			79.0-136	06/19/2020 14:30	WG1489466	³ C c

Radiochemistry by Method Calculation

Radiochemistry by Method Calculation								
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch		Cn
Analyte	pCi/l		+/-	pCi/l	date / time			5
Combined Radium	0.255		0.883	1.44	06/19/2020 16:25	WG1493976		ँSr

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

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

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Analyte	pCi/l		+/-	pCi/l	date / time		5
RADIUM-228	0.931		0.563	0.826	06/19/2020 14:30	WG1489466	
(T) Barium	107			62.0-143	06/19/2020 14:30	WG1489466	L
(T) Yttrium	114			79.0-136	06/19/2020 14:30	WG1489466	3

Radiochemistry by Method Calculation

	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cn
Analyte	pCi/l		+/-	pCi/l	date / time		5
Combined Radium	1.05		0.747	1.11	06/19/2020 16:25	WG1493976	۲ Sr

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

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

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cp
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	0.176		0.532	0.803	06/19/2020 14:30	WG1489466	Tc
(T) Barium	108			62.0-143	06/19/2020 14:30	WG1489466	
(T) Yttrium	105			79.0-136	06/19/2020 14:30	WG1489466	³ Sc

Radiochemistry by Method Calculation

	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cr	١
Analyte	pCi/l		+/-	pCi/l	date / time		5	
Combined Radium	0.575		0.852	1.16	06/19/2020 16:25	WG1493976	ٌSr	

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

Collected date/time: 05/21/20 17:25

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

Radiochemistry by Method Calculation

Radiochemistry by	/ Method Calcu	ulation					4
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Ċn
Analyte	pCi/l		+/-	pCi/l	date / time		5
Combined Radium	0.863		0.895	1.23	06/22/2020 09:30	WG1493976	ິSr

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

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

SAMPLE RESULTS - 09 L1221882



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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	0.282		0.582	0.844	06/22/2020 09:30	WG1489466	
(T) Barium	97.7			62.0-143	06/22/2020 09:30	WG1489466	L
(T) Yttrium	93.9			79.0-136	06/22/2020 09:30	WG1489466	3

Radiochemistry by Method Calculation

Radiochemistry by	Method Calcu	ulation					4
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cn
Analyte	pCi/l		+/-	pCi/l	date / time		5
Combined Radium	0.739		0.876	1.1	06/22/2020 09:30	WG1493976	Sr

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

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

SAMPLE RESULTS - 10 L1221882



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Radiochemistry by Method 904

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

Radiochemistry by Method Calculation

Radiochemistry by	Method Calcu	ulation					4
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	 Cn
Analyte	pCi/l		+ / -	pCi/l	date / time		5
Combined Radium	1.77		1.07	1.08	06/22/2020 09:30	WG1493976	Sr

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

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

SAMPLE RESULTS - 11 L1221882

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Radiochemistry by Method 904

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

Radiochemistry by Method Calculation

Radiochemistry by	/ Method Calcu	ulation					4
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cn
Analyte	pCi/l		+/-	pCi/l	date / time		5
Combined Radium	0.945		1.08	1.36	06/22/2020 09:30	WG1493976	Sr

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

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

SAMPLE RESULTS - 12 L1221882



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Radiochemistry by Method 904

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

Radiochemistry by Method Calculation

Radiochemistry by Method Calculation									
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch		Cn	
Analyte	pCi/l		+/-	pCi/l	date / time			5	
Combined Radium	1.58		0.941	1.37	06/22/2020 09:30	WG1493976		^ĭ Sr	

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

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Radiochemistry by Method 904

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	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch	Cp
Analyte	pCi/l		+/-	pCi/l	date / time		2
RADIUM-228	-0.248		0.676	1.19	06/22/2020 09:30	WG1489466	Tc
(T) Barium	107			62.0-143	06/22/2020 09:30	WG1489466	
(T) Yttrium	94.1			79.0-136	06/22/2020 09:30	WG1489466	³Ss

Radiochemistry by Method Calculation

Radiochemistry by Method Calculation									
	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch			
Analyte	pCi/l		+ / -	pCi/l	date / time		Б		
Combined Radium	0.0950		0.912	1.58	06/22/2020 09:30	WG1493976	ଁSr		

Radiochemistry by Method SM7500Ra B M

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

SDG: L1221882 Radiochemistry by Method 904

QUALITY CONTROL SUMMARY L1221882-01,02,03,04,05,06,07,08,09,10,11,12,13

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Method Blank (MB)

Method Dialik			
(MB) R3541874-1 06	6/19/20 14:30		
	MB Result	MB Qualifier	MB MDA
Analyte	pCi/l		pCi/l
Radium-228	0.0628		0.440
(T) Barium	104		
(T) Yttrium	100		

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

(OS) L1221882-01 06/19/20	0 14:30 • (DUP)	R3541874-5	06/19/20 1	4:30				
	Original Result	DUP Result	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Analyte	pCi/l	pCi/l		%			%	
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											
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier						
Analyte	pCi/l	pCi/l	%	%							
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 06/19/2	(OS) L1221882-01 06/19/20 14:30 • (MS) R3541874-3 06/19/20 14:30 • (MSD) R3541874-4 06/19/20 14:30												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
Analyte	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
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							

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213167.16	L1221882	06/24/20 10:34	20 of 27

Radiochemistry by Method SM7500Ra B M

QUALITY CONTROL SUMMARY L1221882-01,02,03,04

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Method Blank (MB)

Method Dialik			
(MB) R3541403-1 06	/18/20 17:45		
	MB Result	MB Qualifier	MB MDA
Analyte	pCi/l		pCi/l
Radium-226	-0.00599		0.0578
(T) Barium-133	83.6		

Laboratory Control Sample (LCS)

(LCS) R3541403-2 06/18/20 17:45										
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier					
Analyte	pCi/l	pCi/l	%	%						
Radium-226	5.02	5.79	115	80.0-120						
(T) Barium-133			94.6							

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

(OS) L1221882-01 06	/19/20 07:25 • (MS)	R3541403-5 0	6/18/20 17:45	• (MSD) R35414	103-6 06/18/2	20 17:45								- 8 A
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits	
Analyte	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%	9
Radium-226	20.1	0.306	17.3	17.4	84.7	85.2	1	75.0-125			0.575		20	Sc
(T) Barium-133		102			92.1	94.4								

ACCOUNT:	
SCS Engineers - KS	5

PROJECT: 27213167.16

SDG: L1221882

DATE/TIME: 06/24/20 10:34

PAGE: 21 of 27 Radiochemistry by Method SM7500Ra B M

QUALITY CONTROL SUMMARY <u>11221882-05,06,07,08,09,10,11,12,13</u>

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Method Blank (MB)

(MB) R3541479-1 06	/19/20 16:25		
	MB Result	MB Qualifier	MB MDA
Analyte	pCi/l		pCi/l
Radium-226	0.0140		0.0579
(T) Barium-133	84.8		

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

(OS) L1221882-06 06/19/2	20 16:25 • (DUP) R3541479-5 (06/19/20 ′	16:25				
	Original Result	DUP Result	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
Analyte	pCi/l	pCi/l		%			%	
Radium-226	0.119	0.172	1	36.9	0.148		20	3
(T) Barium-133	83.8	68.2						

Laboratory Control Sample (LCS)

(LCS) R3541479-2 06	6/19/20 16:25				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	pCi/l	pCi/l	%	%	
Radium-226	5.02	5.85	117	80.0-120	
(T) Barium-133			78.7		

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													
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
Analyte	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
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							

ACCOUNT:
SCS Engineers - KS

PROJECT: 27213167.16

SDG: L1221882 DATE/TIME: 06/24/20 10:34

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GLOSSARY OF TERMS

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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.
Qualifier	Description

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

PROJECT: 27213167.16

SDG: L1221882 DATE/TIME: 06/24/20 10:34

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ACCREDITATIONS & LOCATIONS

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
Alaska	17-026	Nevada
Arizona	AZ0612	New Hampshire
Arkansas	88-0469	New Jersey–NELAP
California	2932	New Mexico ¹
Colorado	TN00003	New York
Connecticut	PH-0197	North Carolina
Florida	E87487	North Carolina ¹
Georgia	NELAP	North Carolina ³
Georgia ¹	923	North Dakota
Idaho	TN00003	Ohio-VAP
Illinois	200008	Oklahoma
Indiana	C-TN-01	Oregon
lowa	364	Pennsylvania
Kansas	E-10277	Rhode Island
Kentucky ¹⁶	90010	South Carolina
Kentucky ²	16	South Dakota
Louisiana	AI30792	Tennessee ¹⁴
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermont
Michigan	9958	Virginia
Minnesota	047-999-395	Washington
Mississippi	TN00003	West Virginia
Missouri	340	Wisconsin
Montana	CERT0086	Wyoming

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 1 4	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wisconsin	000000010

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213167.16

L1221882

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06/24/20 10:34

Τс Ss Cn Sr Qc Gl AI Sc

5			Billing Info	rmation:		T	L		Analysis	/ Container	/ Preservative		Shain of Custor	ly Page of
SCS Engineers - KS 8575 W. 110th Street Overland Park, KS 66210			8575 W.	s Payable 110th Street d Park, KS 662	10	Pres Chk	3						- Pace Netional	Canter for Testing & Innovation
Report to: Jason Franks			Email To: jfranks@so	csengineers.com;j	ay.martin@e	vergy.c							12065 Lebanon R Mount Juliet, TN	37122
Project Description: Evergy - Montrose Gen Station GW		City/State Collected:	<u>]</u>	. <u>Llo</u> t		ircle:	03						Phone: 615-758-5 Phone: 800-767-5 Fax: 615-758-585	859
Phone: 913-681-0030	Client Pr 27213		· · · · · · · · · · · · · · · · · · ·	Lab Project # AQUAOPKS-	MONTROS	E	ONH PPV						SDG # 127	
Collected by (print): Whit Martin	Site/Faci	ility ID #		P.O. #			11-HDPE-Add						GO3	
Collected by (signature): Management Immediately Packed on Ice N Y X	Sa Sa Tv Tr	rree Day	Day (Rad Only) by (Rad Only)	Quote # Date Result	1	Nc. of	6, RA228						Template: T1 Prelogin: P7 (PM: 206 - Jeff PB: Shipped Via:	69514
Sample ID	Comp/G	Brab Matrix *	Depth	Date	Time	Cntrs	RA22						Remarks	Sample # (lab oniy)
506	6	NPW		5-21-22	1435	4	X							-01
601	1	NPW			1225	2	X							02
602		NPW			1020	2	X							03
603		NPW			1205	2	X							04
604		NPW			1325	2	X							05
605		NPW			1410	2	X							06
701		NPW			1710	2	X							07
702		NPW			1625	2	x							08
703	4	NPW			13.5	2	X							
704		NPW			1525	2	X							04
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks: R/	l A 226/228 - Repo	l ort separat	tely and combin					pH Flow		emp	COC Seal COC Sign Bottles	ample Receipt C Present/Intact ed/Accurate: arrive intact: bottles used:	becklist Y N Y N Y N Y N
DW - Drinking Water OT - Other	Samples retu UPSF	rned via: edExCourier		Tracki	ng #	ġ.					~	Sufficien	nt volume sent: <u>If Applicat</u> Headspace:	Y N
Relinguished by : (Signature)	. Konservation and the second s	Date: 5/52/1	J La	200 11	ed by: (Signat	1	5-22	-20	Trip Blar	k Received:	Yes No HCL/MBOH TBR	Preserval	tion Correct/Ch en <0.5 mR/hr:	ecked; ZY N
Relinquished by : (Signature)		Date:	Time	: Receiv	ed by: (Signat	ture)			Temp.U 2.41	13°C	Bottles Received:	If preserva	tion required by Lo	gin: Date/Time
Relinquished by : (Signature)		Date:	Time	Receiv	ed for lab by:	(Signati	1)M		Date: 5/Z	3/20	Time: 845	Hold:		Condition:

(Billing Info	rmation:		T	1/		Analysis /	Container /	Preservative		Chain of Custor	iy Page of
SCS Engineers - KS				s Payable 110th Street	:	Pres Chk	R						Pac	e Analytical*
8575 W. 110th Street Overland Park, KS 66210			Overland	d Park, KS 66	210								(Nettonal	Canter for Testing & Innovation
Report to: Jason Franks				csengineers.con	n;jay.martin@e	evergy.c							12065 Lebanon R Mount Juliet, TN Phone: 615-758-3	37122 858
Project Description: Evergy - Montrose Gen Station GW		City/State Collected:			Please C PT MT	CITET	HNO3						Phone: 800-767- Fax: 615-758-585	
Phone: 913-681-0030	Client Project 27213167.			Lab Project #	S-MONTROS	SE	HI PPP						SDG # 22 Table #	21882
Collected by (print): Whit Martin	Site/Facility I	D #		P.O. #			11-HDPE-Add		-				Acctnum: AC	
Collected by (signature):	Same D		Day	-	ults Needed	No. of	RA228						Template: T1 Prelogin: P7 PM: 206 - Jef PB:	69514
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	RA226,						Shipped Via: Remarks	Sample # (lab only)
705		NPW		5-21-20	1300	2	X							11
706		NPW			1025	2	X							12
DUPLICATE		NPW				2	×							
MIS		NPW				12	X							
MSD		NPW				1,	X							
		TUP VU											-	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks: RA 22	 6/228 - Rep	l oort separa	tely and comb	ined.			<u>I. </u>	рН Flow		mp	COC Sea COC Sig Bottles	Sample Receipt C 1 Present/Intact ned/Accurate: arrive intact: bottles used:	
DW - Drinking Water OT - Other	Samples returned UPS FedEx			Trac	king#						~	Suffici	ent volume sent <u>If Applica</u> o Headspace:	
Relinquished by : (Signature)	6	ate:	C 1	300 Reg	ened by: (Signa	ature)	,5-2	1300		k Received:	Yes No HCL / MeoH TBR	Preserv	ation Correct/Cl een <0.5 mR/hr:	recked: Y
Relinquished by : (Signature)	D	ate:	Time		eived by: (Signa				Temp:10 2,4±0	A3°C B	ottles Received:	If preserv	vation required by Lo	ogin: Date/Time
Relinquished by : (Signature)	D	ate:	Time	e: Rec	eived for lab by	Signat	ture)	n	Date: - 5/2-	3/20	ime: 845	Hold:		Condition: NGF / OK

Kelsey Stephenson



Login #: L1221882	Client:	Client:AQUAOPKS	Date:05/23	Evaluated by:Kelsey S
Non-Conformance (check applicable items)	check ap	plicable items)		
Sample Integrity		Chain of Custody Clarification	n	
Parameter(s) past holding time		× Login Clarification Needed		If Broken Container:
Temperature not in range		Chain of custody is incomplete	9	Insufficient packing material around container
Improper container type		Please specify Metals requested.	ed.	Insufficient packing material inside cooler
pH not in range.		Please specify TCLP requested.	d.	Improper handling by carrier (FedEx / UPS / Courier
Insufficient sample volume.	ume.	Received additional samples not listed on coc.	not listed on coc.	Sample was frozen
Sample is biphasic.		Sample ids on containers do not match ids on coc	not match ids on	Container lid not intact
Vials received with headspace.	idspace.	Trip Blank not received.		If no Chain of Custody:
Broken container		Client did not "X" analysis.		Received by:
Broken container:		Chain of Custody is missing		Date/Time:
Sufficient sample remains	ns			Temp./Cont. Rec./pH:
				Carrier:
				Tracking#
	ALC: NO			

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

Client informed by:	Call	Email	Voice Mail	Da	Date:5/27/20	T	Time: 11:30	:30		
				STATISTICS OF ST	A CALL IN CONTRACTOR INCOMENTATION OF THE PARTY OF THE PA	A WAY AN AN ANY	A State of the state of the			
TCD Initiale.DE	Clint Contact	act. Iscan Franks	nlre							
I JN IIIIUAIS.DE	CITETLE COTT	act. Jasui 11a	CVII	たための変になっている						
T Too										

Login Instructions:

Customer confirmed DUP is to be analyzed.



ANALYTICAL REPORT

SCS Engineers - KS

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

Report To:

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

Тс Ss Cn Sr ʹQc Gl ΆI Sc

Entire Report Reviewed By:

Jubb law

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1221866 DATE/TIME: 05/31/20 19:22

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TABLE OF CONTENTS

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₩	
¹ Cp	
² Tc	
³ Ss	
⁴ Cn	
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2	Ср
2 3 4	² Tc
5	³ Ss
5	⁴ Cn
6	Cn
7	⁵ Sr
7	
8	⁶ Qc
10	⁷ Gl
11	G
12	⁸ Al
13	
	⁹ Sc

ACCOUNT:
SCS Engineers - KS

Cp: Cover Page

Tc: Table of Contents Ss: Sample Summary **Cn: Case Narrative** Sr: Sample Results

GI: Glossary of Terms

Al: Accreditations & Locations Sc: Sample Chain of Custody

MW-506 L1221866-01 DUPLICATE L1221866-02 **Qc: Quality Control Summary**

Gravimetric Analysis by Method 2540 C-2011

Wet Chemistry by Method 9056A Metals (ICP) by Method 6010B

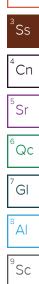
SDG: L1221866

DATE/TIME: 05/31/20 19:22

ONE LAB. NATIONWIDE.

			Collected by	Collected date/time	Received da	te/time
MW-506 L1221866-01 GW			Whit Martin	05/21/20 14:35	05/23/20 08	:45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
			Collected by	Collected date/time	Received da	te/time

DUPLICATE L1221866-02 GW			Whit Martin	05/21/20 14:35	05/23/20 08:	45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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



*

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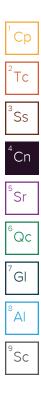
CASE NARRATIVE

*

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.

Jubb land

Jeff Carr Project Manager



SDG: L1221866 DATE/TIME: 05/31/20 19:22 PAGE:

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SAMPLE RESULTS - 01 L1221866

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср	
Analyte	ug/l		ug/l		date / time		 2	i
Dissolved Solids	2800000		50000	1	05/28/2020 23:20	WG1483379	Tc	

Wet Chemistry by Method 9056A

Wet Chemistry b	y Method 9056A						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Chloride	69300		1000	1	05/28/2020 21:44	WG1482625	
luoride	ND		150	1	05/28/2020 21:44	WG1482625	
Sulfate	1780000		500000	100	05/28/2020 21:57	WG1482625	

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 09:37	WG1481523
Calcium	343000	V	1000	1	05/30/2020 09:37	WG1481523

SDG: L1221866

SAMPLE RESULTS - 02 L1221866

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l	ug/l		date / time		2
Dissolved Solids	2800000	50000) 1	05/28/2020 23:20	WG1483379	Tc

Wet Chemistry by Method 9056A

Wet Chemistry t	by Method 9056A	Ą					³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		⁴ Cn
Chloride	69200		1000	1	05/28/2020 23:01	<u>WG1482625</u>	
Fluoride	ND		150	1	05/28/2020 23:01	WG1482625	5
Sulfate	1710000		500000	100	05/28/2020 23:14	WG1482625	Šr ا

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	05/30/2020 10:24	WG1481523
Calcium	350000		1000	1	05/30/2020 10:24	WG1481523

WG1483379

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3533316-1 05/2	8/20 23:20			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	4000	J	2820	10000

Laboratory Control Sample (LCS)

(LCS) R3533316-2 05	(LCS) R3533316-2 05/28/20 23:20					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	ug/l	ug/l	%	%		
Dissolved Solids	8800000	8250000	93.8	85.0-115		

ACCOUNT:	
SCS Engineers - KS	

PROJECT: 27213168.20

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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

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Method Blank (MB)

Method Pidi	ik (ivid)				
(MB) R3533046-	1 05/28/20 14:51				1
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	_
Chloride	U		379	1000	
Fluoride	U		64.0	150	
Sulfate	U		594	5000	

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3533	3046-3 05/28/2016:	10				
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte		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 05/28/2	0 23:26 • (DUP) R3533046-8	05/28/2	0 23:39		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	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							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier		
Analyte	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			

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
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QUALITY CONTROL SUMMARY

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

(OS) • (MS) R3533046-4	05/28/20 16:36 • (MSD) R35	33046-5 05/2	8/20 16:49								
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%		%			%	%
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 C	5/28/20 22:10	• (MSD) R3533	3046-7 05/28/	/20 22:22						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	69300	116000	116000	94.0	94.1	1	80.0-120	E	E	0.0372	15
Fluoride	5000	ND	4660	4690	91.5	92.1	1	80.0-120			0.687	15

DATE/TIME: 05/31/20 19:22

WG1481523

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221866-01,02

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Method Blank (MB)

Method Bidi	ik (ivid)					1 CD
(MB) R3533429-	1 05/30/20 09:32					Ср
	MB Result	MB Qualifier	MB MDL	MB RDL	Г	2
Analyte	ug/l		ug/l	ug/l		⁻Tc
Boron	U		25.4	200		
Calcium	U		389	1000		³Ss

Laboratory Control Sample (LCS)

(LCS) R3533429-2	05/30/20 09:34					
	Spike Amoun	t LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	ug/l	ug/l	%	%		
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								8	ΑΙ					
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	Ľ	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	9	
Boron	1000	ND	1050	1050	97.4	96.6	1	75.0-125			0.766	20		Sc
Calcium	10000	343000	356000	354000	127	109	1	75.0-125	V		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											
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	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

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GLOSSARY OF TERMS

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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).
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.

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SDG: L1221866 DATE/TIME: 05/31/20 19:22

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ACCREDITATIONS & LOCATIONS

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	Nebra
Alaska	17-026	Nebras
Arizona	AZ0612	New H
Arkansas	88-0469	New Je
California	2932	New M
Colorado	TN00003	New Ye
Connecticut	PH-0197	North (
Florida	E87487	North (
Georgia	NELAP	North (
Georgia ¹	923	North I
Idaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregor
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South
Kentucky ²	16	South I
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas
Maryland	324	Utah
Massachusetts	M-TN003	Vermo
Michigan	9958	Virginia
Minnesota	047-999-395	Washir
Mississippi	TN00003	West V
Missouri	340	Wiscor
Montana	CERT0086	Wyomi

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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L1221866

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SCS Engineers - KS	CS Engineers - KS			Billing Information: Accounts Payable 8575 W. 110th Street				M		nalvsis /	Container / Preservative				\square							
3575 W. 110th Street Overland Park, KS 66210			Overland Park, KS 66210					V								- /- Face Netional (Analytical [®] Canter for Testing 8 innovation					
eport to: ason Franks			Email To: jfranks@scsengineers.com;jay.martin@ev				oPres	-								12065 Lebanon Rd Mount Juliet, TN 37122						
Project Description: Evergy - Montrose Generating Station	vergy - Montrose Generating Station Collected:			Please Cir PT MT CT			PE-Nof									Phone: 615-758-56 Phone: 800-767-56 Fax: 615-758-5859	859					
Phone: 913-681-0030	Client Project 27213168.			Lab Project # AQUAOPKS-	MONTROS	E	125mlHDP	- 6010 250mlHDPE-HNO3								The second s	122(866 3034					
Collected by (print): Site/Facility ID # Whit Martin Site/Facility ID # Collected by (signature): Rush? (Lab MUST B Amagenetic Same Day Five						Quote #				P.O. #			HDPE	VoPre			8				Acctnum: AQ	UAOPKS
			Day	Quote #	.F, SO4)			250m	DPE-N							Template: T166717 Prelogin: P769451						
mmediately Packed on ice N Y X	Next Day5 Day (Rad Only10 Day (Rad Only10 Day (Rad Only10 Day (Rad Only11 Three Day			Date Results Needed		No. of	Anions (Cld,	- 6010	250miHDPE-NoPres							PM: 206 - Jeff PB:	Carr					
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Anion	B, Ca	TDS 2							Shipped Via: Remarks	Sample # (lab only)					
AW-506	G	GW	The second	5-21-20	1435	3	X	X	X								-01					
MW-506 MS/MSD	6	GW		5-21-20		3	X	X	x	and real							- 02					
DUPLICATE	6	GW		5-21-20	1435	3	X	X	x			1.5					-93					
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^s Matrix: SS - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay MW - WasteWater	Remarks:									pH Flow		_ Temp _ Other	de	COC Bot	Seal Pr Signed/ tles arr	le Receipt C esent/Intact Accurate: ive intact: tles used:	hecklist					
DW - Drinking Water DT - Other	Samples returned UPSFedEx			Tracki										su: voz	ficient Sero He	volume sent: <u>If Applicab</u> adspace:	leN					
Relinquished by : (Signature) Date: Time: Received by: (Sign 5/22/2 m 1300				ed by: (Signa	Quor	5-	130		rip Blanl	Recei	The second second second second	s No A CL/Meol BR	RAI		on Correct/Ch <0.5 mR/hr:	ecked: Y_N Y_N						
Relinquished by : (Signature)	Da	te:	Time	Receiv	ed by: (Signa	ture)	-		I	emp: 7	3.	C Bottle	s Received	i: Ifp	reservation	n required by Lo.	gin: Date/Time					
Relinquished by : (Signature)	Da	te:	Time	Recei	ed for lab by	: (Signati	ure)	~	C	Date:	2/2	Time:	840	5 Hol	d;		Condition NCF / OK					



ANALYTICAL REPORT

Revised Report

SCS Engineers - KS

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

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb law

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

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	7	³ Ss
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	9	^⁴ Cn
	11	⁵Sr
	13	
	15	⁶ Qc
	17	7
	19	[′] GI
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503	L1221863-03
504	L1221863-04
505	L1221863-05
507	L1221863-06
508	L1221863-07
509	L1221863-08
506	L1221863-09
DUPL	ICATE L1221863-10
Qc: Qua	lity Control Summary
Gravi	metric Analysis by Method 2540 C-2011
Wet C	Chemistry by Method 410.4
Wet C	Chemistry by Method 9020B
Wet C	Chemistry by Method 9056A
Wet C	Chemistry by Method 9060A
Merc	ury by Method 7470A
Metal	s (ICP) by Method 6010B
Metal	s (ICPMS) by Method 6020
GI: Glos	sary of Terms
Al: Accr	editations & Locations
Sc: Sam	ple Chain of Custody

Cp: Cover Page

Tc: Table of Contents Ss: Sample Summary **Cn: Case Narrative** Sr: Sample Results 501 L1221863-01 502 L1221863-02

SDG: L1221863

DATE/TIME: 07/22/20 07:27

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	JAIVIFLL	SAMFLE SUMMARI						
501 L1221863-01 GW			Collected by Whit Martin	Collected date/time 05/21/20 11:30	Received dat 05/23/20 08			
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		
			Collected by	Collected date/time				
502 L1221863-02 GW			Whit Martin	05/21/20 16:05	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		
Net Chemistry by Method 410.4	WG1483770	1	05/29/20 11:23	05/29/20 15:06	SL	Mt. Juliet, TN		
Net Chemistry by Method 9020B	WG1484340	1	05/30/20 14:15	05/30/20 14:15	VRP	Mt. Juliet, TN		
Net Chemistry by Method 9056A	WG1482625	1	05/28/20 18:19	05/28/20 18:19	ELN	Mt. Juliet, TN		
Net Chemistry by Method 9056A	WG1482625	50	05/28/20 18:32	05/28/20 18:32	ELN	Mt. Juliet, TN		
Net 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		
			Collected by	Collected date/time	Received da	te/time		
503 L1221863-03 GW			Whit Martin	05/21/20 13:40	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		
	WG1481522 WG1483373	1	05/29/20 14.17	05/28/20 22:31	TH	Mt. Juliet, TN		
Gravimetric Analysis by Method 2540 C-2011 Wat Chamistry by Mathod 410 4		1						
Net Chemistry by Method 410.4	WG1483770	1	05/29/20 11:23	05/29/20 15:06	SL VRP	Mt. Juliet, TN		
Wet Chemistry by Method 9020B Wet Chemistry by Method 9056A	WG1484340 WG1482625	1	05/30/20 16:16 05/28/20 18:44	05/30/20 16:16	VRP FLN	Mt. Juliet, TN		
	VV(¬ 4×/h/h	1	UD/Z0/ZU 10:44	UD/Z0/ZU 18:44	FLIN			

Method	DdlCII	Dilution	Preparation	Alidiysis	Andiyst	LOCATION
			date/time	date/time		
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

			Collected by	Collected date/time	Received da	te/time
504 L1221863-04 GW			Whit Martin	05/21/20 12:50	05/23/20 08	::45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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
ACCOUNT:	PROJECT:		SDG:	DAT	E/TIME:	PAGE:
SCS Engineers - KS	27213168.20		L1221863		/20 07:27	3 of 44

ONE LAB. NATIONWIDE.

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504 L1221863-04 GW			Collected by Whit Martin	Collected date/time 05/21/20 12:50	Received da 05/23/20 08	
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
			Collected by	Collected date/time	Received da	te/time
505 L1221863-05 GW			Whit Martin	05/21/20 14:05	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
			Collected by	Collected date/time	Received da	te/time
507 L1221863-06 GW			Whit Martin	05/21/20 11:40	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, TI
Gravimetric Analysis by Method 2540 C-2011	WG1481322	1	05/28/20 19:13	05/28/20 22:31	TH	Mt. Juliet, T
Wet Chemistry by Method 410.4	WG1483771	1	05/29/20 11:22	05/29/20 15:22	SL	Mt. Juliet, T
Wet Chemistry by Method 9020B	WG1484340	1	05/30/20 17:19	05/30/20 17:19	VRP	Mt. Juliet, TM
Wet Chemistry by Method 9056A	WG1482625	1	05/28/20 20:27	05/28/20 20:27	ELN	Mt. Juliet, TM
Wet Chemistry by Method 9056A	WG1482625	100	05/28/20 20:40	05/28/20 20:40	ELN	Mt. Juliet, TM
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, Th
			Collected by	Collected date/time	Received da	te/time
508 L1221863-07 GW			Whit Martin	05/21/20 10:25	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, T
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
wet chemistry by Method 9000A	WG1481597	1	05/26/20 18:16	05/27/20 11:04	ABL	Mt. Juliet, TN
Mercury by Method 7470A	W01401337					
	WG1481537	1	05/29/20 10:00	05/29/20 14:34	TRB	Mt. Juliet, TN

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			Collected by	Collected date/time	e Received date/time 05/23/20 08:45		
509 L1221863-08 GW			Whit Martin	05/21/20 17:55			
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location	
			date/time	date/time			
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	

			Collected by	Collected date/time	Received date/time	
506 L1221863-09 GW			Whit Martin	05/21/20 14:35	05/23/20 08:45	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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

			Collected by	Collected date/time	Received date/time 05/23/20 08:45	
DUPLICATE L1221863-10 GW			Whit Martin	05/21/20 14:35		
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
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

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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.

ubb land

Jeff Carr Project Manager

Report Revision History

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

Project Narrative

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.

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501 Collected date/time: 05/21/	/20 11:30		SAMP	LE RE	SULTS - 01	ONE LAB. NATIONWID	/E.
Calculated Results							1
	Result	Qualifier	RDL	Dilution	Analysis	Batch	-
Analyte	ug/l		ug/l		date / time		2
Hardness (calculated) as CaCO3	1430000		2500	1	05/29/2020 14:11	<u>WG1481522</u>	
Gravimetric Analysis	by Method 2	2540 C-20	D11				3
	Result	Qualifier	RDL	Dilution	Analysis	Batch	- Ľ
Analyte	ug/l		ug/l		date / time		4
Dissolved Solids	2430000		50000	1	05/28/2020 22:31	WG1483373	
Wet Chemistry by Me	ethod 410.4						5
	Result	Qualifier	RDL	Dilution	Analysis	Batch	6
Analyte	ug/l		ug/l		date / time		
COD	ND		20000	1	05/29/2020 15:05	WG1483770	
Wet Chemistry by Me	ethod 9020E	3					/
	Result	Qualifier	RDL	Dilution	Analysis	Batch	8
Analyte	ug/l		ug/l		date / time		
тох	ND		100	1	05/30/2020 13:55	WG1484340	9
Wet Chemistry by Me	ethod 9056A	Ą					9
	Result	Qualifier	RDL	Dilution	Analysis	Batch	_
Analyte	ug/l		ug/l		date / time		
Chloride	7890		1000	1	05/28/2020 17:14	WG1482625	
Fluoride	188		150	1	05/28/2020 17:14	WG1482625	
Sulfate	1580000		100000	20	05/28/2020 17:53	WG1482625	
Wet Chemistry by Me	ethod 9060A	4					
	Result	Qualifier	RDL	Dilution	Analysis	Batch	_
Analyte	ug/l		ug/l		date / time		
TOC (Total Organic Carbon)	1310	B	1000	1	05/29/2020 12:25	WG1482709	
Mercury by Method 7	7470A						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Mercury	ND		0.200	1	05/27/2020 10:53	<u>WG1481597</u>	
Metals (ICP) by Metho	od 6010B						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Aluminum	ND		200	1	05/29/2020 14:11	WG1481522	
Barium	16.2		5.00	1	05/29/2020 14:11	WG1481522	
Boron	5320		200	1	05/29/2020 14:11	WG1481522	
Calcium	405000		1000	1	05/29/2020 14:11	WG1481522	
Chromium	ND		10.0	1	05/29/2020 14:11	WG1481522	
Cobalt	ND		10.0	1	05/29/2020 14:11	WG1481522	
Iron	147		100	1	05/29/2020 14:11	WG1481522	
Magnesium	103000		1000	1	05/29/2020 14:11	WG1481522	
Manganese	188		10.0	1	05/29/2020 14:11	WG1481522	
Nickel	49.6		10.0	1	05/29/2020 14:11	WG1481522	
Silvor	ND		F 00	1	05/20/2020 14-11	WC1491E22	

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PROJECT: 27213168.20

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DATE/TIME: 07/22/20 07:27

SAMPLE RESULTS - 01 L1221863



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

Metals (ICPMS) by Method 6020

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

SDG: L1221863

DATE/TIME: 07/22/20 07:27

502 Collected date/time: 05/21/20	0 16:05		SAMPI	LE RES	SULTS - 02 863	2	ONE LAB. NATIONWIDE.	*
Calculated Results								1
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Ср
Analyte	ug/l		ug/l		date / time			
Hardness (calculated) as CaCO3	1300000		2500	1	05/29/2020 14:14	WG1481522		² Tc
Gravimetric Analysis b	w Mathod 2	540 C-20	11					3
Gravimente Anarysis s	Result	Qualifier	RDL	Dilution	Analysis	Batch		°Ss
Analyte	ug/l	Qualiner	ug/l	Dilution	date / time	Dalch		4
Dissolved Solids	2230000		50000	1	05/28/2020 22:31	WG1483373		[°] Cn
								5
Wet Chemistry by Met	hod 410.4							ဳSr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		6
Analyte	ug/l		ug/l		date / time			ČQC
COD	ND		20000	1	05/29/2020 15:06	WG1483770		
Wet Chemistry by Met	had 9020B	ł						⁷ Gl
Wet Chemistry by Met	Result	Qualifier	RDL	Dilution	Analysis	Batch		8
Analyte	ug/l	Quaimer	ug/l	Dilution	date / time	baten		Ă
TOX	ND		100	1	05/30/2020 14:15	WG1484340		
	115		100	•	00/00/2020	TONO IS IS		⁹ Sc
Wet Chemistry by Met	hod 9056A	ι.						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Chloride	21900		1000	1	05/28/2020 18:19	WG1482625		
Fluoride	331		150	1	05/28/2020 18:19	WG1482625		
Sulfate	1380000		250000	50	05/28/2020 18:32	WG1482625		
Wet Chemistry by Met	hod 9060A	L.						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l	Quaimer	ug/l	Dilution	date / time	Datch		
TOC (Total Organic Carbon)	3370		1000	1	05/29/2020 12:46	WG1482709		
				·		<u></u>		
Mercury by Method 74	170A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Mercury	ND		0.200	1	05/27/2020 10:55	WG1481597		
Metals (ICP) by Method	d 6010B							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Aluminum	ND		200	1	05/29/2020 14:14	WG1481522		
Barium	30.5		5.00	1	05/29/2020 14:14	WG1481522		
Boron	2430		200	1	05/29/2020 14:14	WG1481522		
Calcium	382000		1000	1	05/29/2020 14:14	WG1481522		
Chromium	ND		10.0	1	05/29/2020 14:14	WG1481522		
Cobalt	ND		10.0	1	05/29/2020 14:14	WG1481522		
Iron	17100		100	1	05/29/2020 14:14	WG1481522		
Magnesium	85000		1000	1	05/29/2020 14:14	WG1481522		
Manganese	2720		10.0	1	05/29/2020 14:14	WG1481522		
Nickol	ND		10.0	1	05/20/2020 14-14	WC1401E22		

Nickel WG1481522 ND 10.0 05/29/2020 14:14 1 Silver ND 5.00 05/29/2020 14:14 WG1481522 1 151000 3000 WG1481522 Sodium 1 05/29/2020 14:14

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.

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

503 Collected date/time: 05/21/20) 13:40		SAMP	LE RE	SULTS - 03 863	3 ONE LAB. NATION	wide. 💐
Calculated Results							1_
	Result	Qualifier	RDL	Dilution	Analysis	Batch	— Ср
Analyte	ug/l		ug/l		date / time		2
Hardness (calculated) as CaCO3	1650000		2500	1	05/29/2020 14:17	WG1481522	Tc
Gravimetric Analysis by	y Method 2	540 C-20	011				³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		^₄ Cn
Dissolved Solids	3180000		50000	1	05/28/2020 22:31	WG1483373	
Wet Chemistry by Metl	nod 410.4						⁵ Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch	6
Analyte	ug/l		ug/l		date / time		ି Q c
COD	ND		20000	1	05/29/2020 15:06	WG1483770	7
Wet Chemistry by Metl	nod 9020B						Ĝ
	Result	Qualifier	RDL	Dilution	Analysis	Batch	8
Analyte	ug/l		ug/l		date / time		A
ТОХ	ND		100	1	05/30/2020 16:16	WG1484340	9
Wet Chemistry by Metl	nod 9056A	L .					Sc
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Chloride	38200		1000	1	05/28/2020 18:44	<u>WG1482625</u>	
Fluoride	265		150	1	05/28/2020 18:44	<u>WG1482625</u>	
Sulfate	2170000		500000	100	05/28/2020 18:57	WG1482625	
Wet Chemistry by Meth	nod 9060A	L.					
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
TOC (Total Organic Carbon)	1340	B	1000	1	05/29/2020 14:35	WG1482709	
Mercury by Method 74	70A						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Mercury	ND		0.200	1	05/27/2020 10:57	WG1481597	
Metals (ICP) by Method	1 6010B						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Aluminum	5190		200	1	05/29/2020 14:17	WG1481522	
Barium	28.7		5.00	1	05/29/2020 14:17	WG1481522	
Boron	ND		200	1	05/29/2020 14:17	WG1481522	
Calcium	446000		1000	1	05/29/2020 14:17	WG1481522	
Chromium	ND		10.0	1	05/29/2020 14:17	WG1481522	
Cobalt	ND		10.0	1	05/29/2020 14:17	WG1481522	
Iron	2670		100	1	0E/20/2020 14:17	WC1401E00	

2670

212

ND

ND

286000

131000

Iron

Magnesium

Manganese

Nickel

Silver

Sodium

PROJECT: 27213168.20

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1

1

1

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100

1000

10.0

10.0

5.00

3000

SDG: L1221863

05/29/2020 14:17

05/29/2020 14:17

05/29/2020 14:17

05/29/2020 14:17

05/29/2020 14:17

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WG1481522

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> DATE/TIME: 07/22/20 07:27

SAMPLE RESULTS - 03

ONE LAB. NATIONWIDE.

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AntimonyND4.00105/29/2020 22:25WG1481532ArsenicND2.00105/29/2020 22:25WG1481532BerylliumND2.00105/29/2020 22:25WG1481532CadmiumND1.00105/29/2020 22:25WG1481532CopperND5.00105/29/2020 22:25WG1481532LeadND5.00105/29/2020 22:25WG1481532Selenium2.592.00105/29/2020 22:25WG1481532ThalliumND2.00105/29/2020 22:25WG1481532								
AntimonyND4.00105/29/2020 22:25WG1481532ArsenicND2.00105/29/2020 22:25WG1481532BerylliumND2.00105/29/2020 22:25WG1481532CadmiumND1.00105/29/2020 22:25WG1481532CopperND5.00105/29/2020 22:25WG1481532LeadND5.00105/29/2020 22:25WG1481532Selenium2.592.00105/29/2020 22:25WG1481532ThalliumND2.00105/29/2020 22:25WG1481532		Result	Qualifier	RDL	Dilution	Analysis	Batch	
ArsenicND2.00105/29/2020 22:25WG1481532BerylliumND2.00105/29/2020 22:25WG1481532CadmiumND1.00105/29/2020 22:25WG1481532CopperND5.00105/29/2020 22:25WG1481532LeadND5.00105/29/2020 22:25WG1481532Selenium2.592.00105/29/2020 22:25WG1481532ThalliumND2.00105/29/2020 22:25WG1481532	Analyte	ug/l		ug/l		date / time		
Beryllium ND 2.00 1 05/29/2020 22:25 WG1481532 Cadmium ND 1.00 1 05/29/2020 22:25 WG1481532 Copper ND 5.00 1 05/29/2020 22:25 WG1481532 Lead ND 5.00 1 05/29/2020 22:25 WG1481532 Selenium 2.59 2.00 1 05/29/2020 22:25 WG1481532 Thallium ND 2.00 1 05/29/2020 22:25 WG1481532	Antimony	ND		4.00	1	05/29/2020 22:25	WG1481532	
ND 1.00 1 05/29/2020 22:25 WG1481532 Copper ND 5.00 1 05/29/2020 22:25 WG1481532 Lead ND 5.00 1 05/29/2020 22:25 WG1481532 Selenium 2.59 2.00 1 05/29/2020 22:25 WG1481532 Thallium ND 2.00 1 05/29/2020 22:25 WG1481532	Arsenic	ND		2.00	1	05/29/2020 22:25	WG1481532	
Copper ND 5.00 1 05/29/2020 22:25 WG1481532 Lead ND 5.00 1 05/29/2020 22:25 WG1481532 Selenium 2.59 2.00 1 05/29/2020 22:25 WG1481532 Thallium ND 2.00 1 05/29/2020 22:25 WG1481532	Beryllium	ND		2.00	1	05/29/2020 22:25	WG1481532	
Lead ND 5.00 1 05/29/2020 22:25 WG1481532 Selenium 2.59 2.00 1 05/29/2020 22:25 WG1481532 Thallium ND 2.00 1 05/29/2020 22:25 WG1481532	Cadmium	ND		1.00	1	05/29/2020 22:25	WG1481532	
Selenium 2.59 2.00 1 05/29/2020 22:25 WG1481532 Thallium ND 2.00 1 05/29/2020 22:25 WG1481532	Copper	ND		5.00	1	05/29/2020 22:25	WG1481532	
ND 2.00 1 05/29/2020 22:25 WG1481532	Lead	ND		5.00	1	05/29/2020 22:25	WG1481532	
	Selenium	2.59		2.00	1	05/29/2020 22:25	WG1481532	
Zinc ND 25.0 1 05/29/2020 22:25 WG1481532	Thallium	ND		2.00	1	05/29/2020 22:25	WG1481532	
	Zinc	ND		25.0	1	05/29/2020 22:25	WG1481532	

SDG: L1221863

504			SAMPLE RESULTS - 04				ONE LAB. NATIONWIDE.	*
Collected date/time: 05/21/20	0 12:50			L1221	863			
Calculated Results								1
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Ср
Analyte	ug/l		ug/l		date / time			2
Hardness (calculated) as CaCO3	1270000		2500	1	05/29/2020 14:20	WG1481522		Tc
Gravimetric Analysis b	y Method 2	540 C-20	011					³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁴Cn
Dissolved Solids	2410000		50000	1	05/28/2020 22:31	WG1483373		
Wet Chemistry by Met	hod 410.4							⁵Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		6
Analyte	ug/l		ug/l		date / time			ĞQc
COD	ND		20000	1	05/29/2020 15:22	WG1483771		7
Wet Chemistry by Met	hod 9020B							΄GΙ
	Result	Qualifier	RDL	Dilution	Analysis	Batch		8
Analyte	ug/l		ug/l		date / time			A
ТОХ	ND		100	1	05/30/2020 16:36	WG1484340		9
Wet Chemistry by Met	hod 9056A	L.						Sc
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Chloride	9030		1000	1	05/28/2020 19:10	WG1482625		
Fluoride	361		150	1	05/28/2020 19:10	WG1482625		
Sulfate	1620000		500000	100	05/28/2020 19:23	WG1482625		
Wet Chemistry by Met	hod 9060A	۱.						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
TOC (Total Organic Carbon)	1320	B	1000	1	05/29/2020 15:45	WG1482709		
Mercury by Method 74	70A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Mercury	ND		0.200	1	05/27/2020 10:59	WG1481597		
Metals (ICP) by Method	d 6010B							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Aluminum	296		200	1	05/29/2020 14:20	WG1481522		
Barium	14.0		5.00	1	05/29/2020 14:20	WG1481522		
Boron	4140		200	1	05/29/2020 14:20	WG1481522		
Calcium	357000		1000	1	05/29/2020 14:20	WG1481522		
Chromium	ND		10.0	1	05/29/2020 14:20	WG1481522		
Cobalt	ND		10.0	1	05/29/2020 14:20	WG1481522		
Iron	547		100	1	05/29/2020 14:20	WG1481522		
Magnesium	92000		1000	1	05/29/2020 14:20	WG1481522		
Manganese	1020		10.0	1	05/29/2020 14:20	WG1/181522		

ACCOUNT: SCS Engineers - KS

1020

25.5

199000

ND

Manganese

Nickel

Silver

Sodium

PROJECT: 27213168.20

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10.0

10.0

5.00

3000

SDG: L1221863

05/29/2020 14:20

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DATE/TIME: 07/22/20 07:27

WG1481522

WG1481522

WG1481522

WG1481522

PAGE: 13 of 44

Collected date/time: 05/21/20 12:50 Metals (ICPMS) by Method 6020

SAMPLE RESULTS - 04 L1221863

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

505 Collected date/time: 05/21/20) 14:05		SAMPI	LE RE	SULTS - 05 863	5	ONE LAB. NATIONWIDE.	*
Calculated Results								¹ Cp
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Οp
Analyte	ug/l		ug/l		date / time			2
Hardness (calculated) as CaCO3	1300000		2500	1	05/29/2020 14:23	WG1481522		Tc
Gravimetric Analysis by	y Method 2	540 C-20	011					³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁴ Cn
Dissolved Solids	2030000		25000	1	05/28/2020 22:31	WG1483373		CIT
Wet Chemistry by Meth	nod 410.4							⁵ Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			[°] Qc
COD	45000		20000	1	05/29/2020 15:22	WG1483771		
Wet Chemistry by Meth	nod 9020B							⁷ Gl
	Result	Qualifier	RDL	Dilution	Analysis	Batch		8
Analyte	ug/l	quanta	ug/l	Dilation	date / time			٦A
тох	ND		100	1	05/30/2020 16:57	WG1484340		
	ND		100		00,00,2020 10.01			[°] Sc
Wet Chemistry by Meth	nod 9056A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Chloride	8850		1000	1	05/28/2020 19:36	WG1482625		
Fluoride	249		150	1	05/28/2020 19:36	WG1482625		
Sulfate	1340000		500000	100	05/28/2020 19:49	WG1482625		
Wet Chemistry by Meth	nod 9060A	L .						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
TOC (Total Organic Carbon)	5510		1000	1	05/29/2020 16:10	WG1482709		
Mercury by Method 74	70A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Mercury	ND		0.200	1	05/27/2020 11:01	WG1481597		
Metals (ICP) by Method	1 6010B							
		0 115		D :1 .:				
America	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time	11101101500		
Aluminum	1410		200	1	05/29/2020 14:23	WG1481522		
Barium	61.7		5.00	1	05/29/2020 14:23	WG1481522		
Boron	5860		200	1	05/29/2020 14:23	WG1481522		
Calcium Chromium	474000 ND		1000	1 1	05/29/2020 14:23	WG1481522		
Cobalt	ND ND		10.0 10.0	1	05/29/2020 14:23 05/29/2020 14:23	WG1481522 WG1481522		
Iron	344000		10.0	1	05/29/2020 14:23	WG1481522 WG1481522		
Magnesium	27300		1000	1	05/29/2020 14:23	WG1481522 WG1481522		
Magnese	27300		10.0	1	05/29/2020 14:23	WG1481522 WG1481522		
Niekol	257		10.0	1	05/29/2020 14.23	WG1401522		

ACCOUNT: SCS Engineers - KS

31.1

ND

92200

Nickel

Silver

Sodium

PROJECT: 27213168.20

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10.0

5.00

3000

SDG: L1221863

05/29/2020 14:23

05/29/2020 14:23

05/29/2020 14:23

DATE/TIME: 07/22/20 07:27

WG1481522

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SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.

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	Result	Qualifier	RDL	Dilution	Analysis	Batch			
Analyte	ug/l		ug/l		date / time				
Antimony	5.73		4.00	1	05/29/2020 20:23	WG1481532			
Arsenic	ND		20.0	10	05/29/2020 21:58	WG1481532			
Beryllium	ND		2.00	1	05/29/2020 20:23	WG1481532			
Cadmium	16.4		1.00	1	05/29/2020 20:23	WG1481532			
Copper	ND		50.0	10	05/29/2020 21:58	WG1481532			
Lead	6.24		5.00	1	05/29/2020 20:23	WG1481532			
Selenium	17.3		2.00	1	05/29/2020 20:23	WG1481532			
Thallium	ND		2.00	1	05/29/2020 20:23	WG1481532			
Zinc	563		250	10	05/29/2020 21:58	WG1481532			

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Collected date/time: 05/21/2	0 11:40			L1221	863			
Calculated Results								1
	Result	Qualifier	RDL	Dilution	Analysis	Batch		C
Analyte	ug/l		ug/l		date / time			
Hardness (calculated) as CaCO3	2080000		2500	1	05/29/2020 14:31	WG1481522		^{2}T
, .								
Gravimetric Analysis b	y Method 2	2540 C-20	J11					³ S
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁴ C
Dissolved Solids	3610000		50000	1	05/28/2020 22:31	WG1483373		Ľ
								5
Wet Chemistry by Met	thod 410.4							ິS
	Result	Qualifier	RDL	Dilution		Batch		6
Analyte	ug/l		ug/l		date / time			Ğ
COD	ND		20000	1	05/29/2020 15:22	WG1483771		
								⁷ G
Wet Chemistry by Met	thod 9020B	3						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		⁸ A
Analyte	ug/l		ug/l		date / time			
ТОХ	ND		100	1	05/30/2020 17:19	WG1484340		9
								Ŝ
Wet Chemistry by Met	thod 9056A	x						L
	Result	Qualifier	RDL	Dilution		Batch		
Analyte	ug/l		ug/l		date / time			
Chloride	3860		1000	1	05/28/2020 20:27	WG1482625		
Fluoride	484		150	1	05/28/2020 20:27	WG1482625		
Sulfate	2340000		500000	100	05/28/2020 20:40	WG1482625		
Mat Chamietry by Mo	the d OOGOA	Λ.						
Wet Chemistry by Met								
• • · ·	Result	Qualifier	RDL	Dilution		Batch		
Analyte	ug/l		ug/l		date / time			
TOC (Total Organic Carbon)	1310	B	1000	1	05/29/2020 16:26	WG1482709		
Mercury by Method 74	1701							
		0		Dilution				
A 1	Result	Qualifier	RDL	Dilution		Batch		
Analyte	ug/l		ug/l		date / time	WC1401E07		
Mercury	ND		0.200	1	05/27/2020 11:03	WG1481597		
Metals (ICP) by Metho	od 6010B							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l	G G G G G G G G G G G G G G G G G G G	ug/l	B 100.2	date / time	Bater		
Aluminum	1050		200	1	05/29/2020 14:31	WG1481522		
Barium	14.9		5.00	1	05/29/2020 14:31	WG1481522		
Boron	272		200	1	05/29/2020 14:31	WG1481522		
Calcium	593000		1000	1	05/29/2020 14.31	WG1481522		

			-		
Boron	272	200	1	05/29/2020 14:31	WG1481522
Calcium	593000	1000	1	05/29/2020 14:31	WG1481522
Chromium	ND	10.0	1	05/29/2020 14:31	WG1481522
Cobalt	15.1	10.0	1	05/29/2020 14:31	WG1481522
Iron	2900	100	1	05/29/2020 14:31	WG1481522
Magnesium	146000	1000	1	05/29/2020 14:31	WG1481522
Manganese	3010	10.0	1	05/29/2020 14:31	WG1481522
Nickel	14.5	10.0	1	05/29/2020 14:31	WG1481522
Silver	ND	5.00	1	05/29/2020 14:31	WG1481522
Sodium	249000	3000	1	05/29/2020 14:31	WG1481522

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

SAMPLE RESULTS - 06

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Antimony	ND		4.00	1	05/29/2020 20:26	WG1481532	
Arsenic	ND		2.00	1	05/29/2020 20:26	WG1481532	
Beryllium	ND		2.00	1	05/29/2020 20:26	WG1481532	
Cadmium	3.02		1.00	1	05/29/2020 20:26	WG1481532	
Copper	7.02		5.00	1	05/29/2020 20:26	WG1481532	
Lead	ND		5.00	1	05/29/2020 20:26	WG1481532	
Selenium	ND		2.00	1	05/29/2020 20:26	WG1481532	
Thallium	ND		2.00	1	05/29/2020 20:26	WG1481532	
Zinc	49.3		25.0	1	05/29/2020 20:26	WG1481532	

508 Collected date/time: 05/21/20	0 10:25		JANIF	LL RL L1221	SULTS - 07		ONE LAB. NATIONWIDE.	
Calculated Results								
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Cp
Analyte	ug/l	Qualifier	ug/l	Dilution	date / time	Batch		
Hardness (calculated) as CaCO3	1200000		2500	1	05/29/2020 14:34	WG1481522		² Tc
Gravimetric Analysis b	y Method 2	540 C-20)11					³Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁴ Cn
Dissolved Solids	2240000		25000	1	05/28/2020 22:31	WG1483373		CIT
Wet Chemistry by Met	hod 410.4							⁵Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		6
Analyte	ug/l		ug/l		date / time			[°] Qc
COD	ND		20000	1	05/29/2020 15:22	WG1483771		
Wet Chemistry by Met	had 9020B							⁷ Gl
Wet Chemistry by Wet				Dilution	Analysis	Datab		0
Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch		ٌAI
TOX	ND		100	1	05/30/2020 17:40	WG1484340		
Wet Chemistry by Met	had ODEGA							ຶSc
wet Chemistry by wet								
Analys	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l	4	date / time	WC1402C25		
Chloride	11700		1000	1	05/28/2020 20:53	WG1482625		
Fluoride Sulfate	ND 1500000		150 500000	100	05/28/2020 20:53 05/28/2020 21:06	WG1482625 WG1482625		
Sundle	1300000		300000	100	03/20/2020 21.00	W01102023		
Wet Chemistry by Met	hod 9060A	L						
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
TOC (Total Organic Carbon)	1140	B	1000	1	05/29/2020 16:39	WG1482709		
Mercury by Method 74	70A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Mercury	ND		0.200	1	05/27/2020 11:04	WG1481597		
Metals (ICP) by Method	d 6010B							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
				1	05/29/2020 14:34	WG1481522		
Aluminum	275		200	1	05/29/2020 14.54	WG1401322		

Aluminum	275	200	1	05/29/2020 14:34	WG1481522
Barium	21.6	5.00	1	05/29/2020 14:34	WG1481522
Boron	407	200	1	05/29/2020 14:34	WG1481522
Calcium	346000	1000	1	05/29/2020 14:34	WG1481522
Chromium	ND	10.0	1	05/29/2020 14:34	WG1481522
Cobalt	ND	10.0	1	05/29/2020 14:34	WG1481522
Iron	725	100	1	05/29/2020 14:34	WG1481522
Magnesium	82000	1000	1	05/29/2020 14:34	WG1481522
Manganese	335	10.0	1	05/29/2020 14:34	WG1481522
Nickel	ND	10.0	1	05/29/2020 14:34	WG1481522
Silver	ND	5.00	1	05/29/2020 14:34	WG1481522
Sodium	192000	3000	1	05/29/2020 14:34	WG1481522

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

Collected date/time: $05/21/20 \ 10:25$ Metals (ICPMS) by Method 6020

SAMPLE RESULTS - 07 L1221863

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Antimony	ND		4.00	1	05/29/2020 20:30	WG1481532	
Arsenic	ND		2.00	1	05/29/2020 20:30	WG1481532	
Beryllium	ND		2.00	1	05/29/2020 20:30	WG1481532	
Cadmium	ND		1.00	1	05/29/2020 20:30	WG1481532	
Copper	7.87		5.00	1	05/29/2020 20:30	WG1481532	
ead	ND		5.00	1	05/29/2020 20:30	WG1481532	
Selenium	ND		2.00	1	05/29/2020 20:30	WG1481532	
Fhallium	ND		2.00	1	05/29/2020 20:30	WG1481532	
Zinc	ND		25.0	1	05/29/2020 20:30	WG1481532	

SDG: L1221863

DATE/TIME: 07/22/20 07:27

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509			SAMPL	E RES	SULTS - 08	10	NE LAB. NATIONWIDE.	*
Collected date/time: 05/21/20	17:55			L1221	863			
Calculated Results								1
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Ср
Analyte	ug/l		ug/l		date / time			2
Hardness (calculated) as CaCO3	1580000		2500	1	05/29/2020 14:37	WG1481522		Tc
Gravimetric Analysis by Method 2540 C-2011								
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁴ Cn
Dissolved Solids	4220000		50000	1	05/28/2020 22:31	WG1483373		
								⁵ Sr
Wet Chemistry by Meth	od 410.4							Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		6
Analyte	ug/l		ug/l		date / time			ĞQc
COD	167000		20000	1	05/29/2020 15:23	WG1483771		
								⁷ Gl
Wet Chemistry by Meth	od 9020B							-
	Result	Qualifier	RDL	Dilution	Analysis	Batch		⁸ AI
Analyte	ug/l		ug/l		date / time			AI
ТОХ	ND	<u>P1</u>	100	1	06/02/2020 14:06	WG1484340		9
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Wet Chemistry by Meth	od 9056A							

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Chloride	40100		1000	1	05/28/2020 21:18	WG1482625
Fluoride	360		150	1	05/28/2020 21:18	WG1482625
Sulfate	2790000		500000	100	05/28/2020 21:31	WG1482625

Sample Narrative:

L1221863-08 WG1482625: Flouride at a dilution due to matrix interference

Wet Chemistry by Method 9060A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
TOC (Total Organic Carbon)	8680		1000	1	05/29/2020 17:00	WG1482709

Mercury by Method 7470A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	05/27/2020 11:06	WG1481597

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Aluminum	8510		200	1	05/29/2020 14:37	WG1481522
Barium	137		5.00	1	05/29/2020 14:37	WG1481522
Boron	8310		200	1	05/29/2020 14:37	WG1481522
Calcium	499000		1000	1	05/29/2020 14:37	WG1481522
Chromium	23.0		10.0	1	05/29/2020 14:37	WG1481522
Cobalt	287		10.0	1	05/29/2020 14:37	WG1481522
Iron	413000		100	1	05/29/2020 14:37	WG1481522
Magnesium	81400		1000	1	05/29/2020 14:37	WG1481522
Manganese	62900		50.0	5	05/30/2020 11:28	WG1481522
Nickel	172		10.0	1	05/29/2020 14:37	WG1481522
Silver	ND		5.00	1	05/29/2020 14:37	WG1481522
Sodium	210000		3000	1	05/29/2020 14:37	WG1481522

ACCOUNT: SCS Engineers - KS

PROJECT: 27213168.20

SDG: L1221863

DATE/TIME: 07/22/20 07:27

Collected date/time: 05/21/20 17:55 Metals (ICPMS) by Method 6020

SAMPLE RESULTS - 08 L1221863

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	Result	Qualifier	RDL	Dilution	Analysis	Patch
		Qualifier	RDL	Dilution		Batch
Analyte	ug/l		ug/l		date / time	
Antimony	ND		4.00	1	05/29/2020 20:33	WG1481532
Arsenic	17.3		2.00	1	05/29/2020 20:33	WG1481532
Beryllium	ND		2.00	1	05/29/2020 20:33	WG1481532
Cadmium	4.75		1.00	1	05/29/2020 20:33	WG1481532
Copper	13.1		5.00	1	05/29/2020 20:33	WG1481532
Lead	7.97		5.00	1	05/29/2020 20:33	WG1481532
Selenium	2.15		2.00	1	05/29/2020 20:33	WG1481532
Thallium	ND		2.00	1	05/29/2020 20:33	WG1481532
Zinc	81.3		25.0	1	05/29/2020 20:33	WG1481532

506 Collected date/time: 05/21/2	0.14.25		SAMF		SULTS - 09	9	ONE LAB. NATIONWIDE.			
	0 17.55			LIZZI	805					
Calculated Results										
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time					
Hardness (calculated) as CaCO3	1320000		2500	1	05/29/2020 13:42	WG1481522				
Wet Chemistry by Met	Wet Chemistry by Method 410.4									
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time					
COD	ND		20000	1	05/29/2020 15:23	WG1483771				
Wet Chemistry by Met	:hod 9020E	3								
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time					
ТОХ	ND	J5 P1	100	1	06/02/2020 14:28	WG1484340				
Wet Chemistry by Met	hod 9060A	4								
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time					
TOC (Total Organic Carbon)	1350	B	1000	1	05/29/2020 18:46	WG1482709				
Mercury by Method 74	470A									
	Result	Qualifier	RDL	Dilution	Analysis	Batch				
Analyte	ug/l		ug/l		date / time					

Metals (ICP) by Method 6010B

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Mercury

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Aluminum	325		200	1	05/29/2020 13:42	WG1481522
Barium	10.1		5.00	1	05/29/2020 13:42	WG1481522
Chromium	ND		10.0	1	05/29/2020 13:42	WG1481522
Cobalt	ND		10.0	1	05/29/2020 13:42	WG1481522
Iron	299		100	1	05/29/2020 13:42	WG1481522
Magnesium	112000		1000	1	05/29/2020 13:42	WG1481522
Manganese	152		10.0	1	05/29/2020 13:42	WG1481522
Nickel	95.6		10.0	1	05/29/2020 13:42	WG1481522
Silver	ND		5.00	1	05/29/2020 13:42	WG1481522
Sodium	282000	V	3000	1	05/29/2020 13:42	WG1481522

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WG1481597

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Metals (ICPMS) by Method 6020

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Antimony	ND		4.00	1	05/29/2020 21:19	WG1481532
Arsenic	ND		2.00	1	05/29/2020 21:19	WG1481532
Beryllium	ND		2.00	1	05/29/2020 21:19	WG1481532
Cadmium	ND		1.00	1	05/29/2020 21:19	WG1481532
Copper	ND		5.00	1	05/29/2020 21:19	WG1481532
Lead	ND		5.00	1	05/29/2020 21:19	WG1481532
Selenium	6.70		2.00	1	05/29/2020 21:19	WG1481532
Thallium	ND		2.00	1	05/29/2020 21:19	WG1481532
Zinc	ND		25.0	1	05/29/2020 21:19	WG1481532

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

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DUPLICATE			SAMP	LE RE	SULTS - 10)	ONE LAB. NATIONWIDE.	*
Collected date/time: 05/21/20) 14:35			L1221	863			
Calculated Results								1
	Result	Qualifier	RDL	Dilution	Analysis	Batch		Ср
Analyte	ug/l		ug/l		date / time			2
Hardness (calculated) as CaCO3	1330000		2500	1	05/29/2020 14:40	WG1481522		Tc
Wet Chemistry by Meth	nod 410.4							³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			4
COD	ND		20000	1	05/29/2020 15:24	WG1483771		Cn
Wet Chemistry by Meth	nod 9020B							⁵ Sr
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			⁶ Qc
TOX	ND		100	1	06/02/2020 14:48	WG1484340		
Wet Chemistry by Meth	nod 9060A							⁷ Gl
Wet onemistry by met	Result	Qualifier	RDL	Dilution	Analysis	Batch		2
Analyte	ug/l	Quaimer	ug/l	Dilution	date / time	Batch		٦A
TOC (Total Organic Carbon)	1480	B	1000	1	05/29/2020 20:10	WG1482709		
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Mercury by Method 74	70A							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Mercury	ND		0.200	1	05/27/2020 11:08	WG1481597		
Metals (ICP) by Methoc	6010B							
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			
Aluminum	524		200	1	05/29/2020 14:40	WG1481522		
Barium	10.1		5.00	1	05/29/2020 14:40	WG1481522		
Chromium	ND		10.0	1	05/29/2020 14:40	WG1481522		
Cobalt	ND		10.0	1	05/29/2020 14:40	WG1481522		
Iron	488		100	1	05/29/2020 14:40	WG1481522		
Magnesium	114000		1000	1	05/29/2020 14:40	WG1481522		
Manganese	155		10.0	1	05/29/2020 14:40	WG1481522		

randiyee	ugn	ugn		date / time	
Aluminum	524	200	1	05/29/2020 14:40	WG1481522
Barium	10.1	5.00	1	05/29/2020 14:40	WG1481522
Chromium	ND	10.0	1	05/29/2020 14:40	WG1481522
Cobalt	ND	10.0	1	05/29/2020 14:40	WG1481522
Iron	488	100	1	05/29/2020 14:40	WG1481522
Magnesium	114000	1000	1	05/29/2020 14:40	WG1481522
Manganese	155	10.0	1	05/29/2020 14:40	WG1481522
Nickel	92.9	10.0	1	05/29/2020 14:40	WG1481522
Silver	ND	5.00	1	05/29/2020 14:40	WG1481522
Sodium	285000	3000	1	05/29/2020 14:40	WG1481522

Metals (ICPMS) by Method 6020

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Antimony	ND		4.00	1	05/26/2020 23:06	WG1480615
Arsenic	ND		2.00	1	05/26/2020 23:06	WG1480615
Beryllium	ND		2.00	1	05/26/2020 23:06	WG1480615
Cadmium	ND		1.00	1	05/26/2020 23:06	WG1480615
Copper	ND		5.00	1	05/26/2020 23:06	WG1480615
Lead	ND		5.00	1	05/26/2020 23:06	WG1480615
Selenium	5.80		2.00	1	05/26/2020 23:06	WG1480615
Thallium	ND		2.00	1	05/26/2020 23:06	WG1480615
Zinc	ND		25.0	1	05/26/2020 23:06	WG1480615

PROJECT: 27213168.20

SDG: L1221863

DATE/TIME: 07/22/20 07:27

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08

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Method Blank (MB)

(MB) R3533287-1 05/28	/20 22:31			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

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

(OS) L1221865-11 05/2	28/20 22:31 • (DUF	P) R3533287-3	05/28/20) 22:31		
	Original Resul	t DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	1800000	1790000	1	0.279		5

Laboratory Control Sample (LCS)

(LCS) R3533287-2 05	5/28/20 22:31				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	7940000	90.2	85.0-115	

ACCOUNT:
SCS Engineers - KS

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27 PAGE: 25 of 44

Wet Chemistry by Method 410.4

QUALITY CONTROL SUMMARY L1221863-01,02,03

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Method Blank (MB)

(MB) R3533126-1 05/	/29/20 15:01			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
COD	U		11700	20000

L1221769-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221769-01 05/29/2	20 15:04 • (DUP)	R3533126-3	05/29/20	15:04		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
COD	859000	858000	1	0.107		20

L1221863-03 Original Sample (OS) • Duplicate (DUP)

L1221863-03 Origir	nal Sample	(OS) • Dup	olicate (DUP)			⁷ Gl
(OS) L1221863-03 05/29/	20 15:06 • (DUF	P) R3533126-6	05/29/20	0 15:06			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	P RPD its	⁸ Al
Analyte	ug/l	ug/l		%			
COD	ND	ND	1	0.000			⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3533126-2 05/29	/20 15:01				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	

L1221863-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-01 05/29/2	0 15:05 • (MS) F	R3533126-4 0	5/29/20 15:05	• (MSD) R3533	126-5 05/29/2	20 15:05						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
COD	400000	ND	403000	406000	101	101	1	80.0-120			0.668	20

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213168.20	L1221863	07/22/20 07:27	26 of 44

Wet Chemistry by Method 410.4

QUALITY CONTROL SUMMARY L1221863-04,05,06,07,08,09,10

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Method Blank (MB)

(MB) R3533140-1 05	/29/20 15:22			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
COD	U		11700	20000

L1221947-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221947-01 05/29/2	20 15:24 • (DUP)	R3533140-5	05/29/20	15:24		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
COD	25300	26100	1	2.86		20

L1222117-01 Original Sample (OS) • Duplicate (DUP)

L1222117-01 Origina	al Sample (C	DS) • Dupli	cate (D	UP)			⁷ Gl
(OS) L1222117-01 05/29/2	0 15:27 • (DUP)	R3533140-6 (05/29/20	15:27			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	⁸ Al
Analyte	ug/l	ug/l		%		%	
COD	27800	28600	1	3.02		20	⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3533140-2 05/29	S) R3533140-2 05/29/20 15:22									
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier					
Analyte	ug/l	ug/l	%	%						
COD	222000	233000	105	90.0-110						

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/29/2	20 15:23 • (MS)	R3533140-3 0	5/29/20 15:23	• (MSD) R3533	140-4 05/29/2	20 15:23						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
COD	400000	ND	415000	417000	104	104	1	80.0-120			0.500	20

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
SCS Engineers - KS	27213168.20	L1221863	07/22/20 07:27	27 of 44

Wet Chemistry by Method 9020B

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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Method Blank (MB)

(MB) R3533315-2 05/29	/20 15:06			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
ТОХ	U		27.7	100

L1221843-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221843-01 05/29/2	20 21:22 • (DUP)) R3533315-3	05/29/20	21:32		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOX	ND	ND	1	200	P1	20

L1221847-03 Original Sample (OS) • Duplicate (DUP)

L1221847-03 Orio	ginal Sample	(OS) • Duj	plicate (DUP)		
OS) L1221847-03 05/2	29/20 21:43 • (DUP) R3533315-4	05/29/20) 21:52		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
ТОХ	ND	ND	1	0.000		20

L1221847-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1221847-06 05/30/2	20 12:53 • (DUP) R3533997-3	05/30/20) 13:04		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOX	ND	ND	1	0.000		20

L1221851-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221851-02 05/30/2	DS) L1221851-02 05/30/20 13:14 • (DUP) R3533997-4 05/30/20 13:24									
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits				
Analyte	ug/l	ug/l		%		%				
TOX	ND	ND	1	0.000		20				

ACCOUNT:
SCS Engineers - KS

PROJECT: 27213168.20

SDG: L1221863

DATE/TIME: 07/22/20 07:27

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Wet Chemistry by Method 9020B

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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L1221853-02 Original Sample (OS) • Duplicate (DUP)

	05/30/20 13:34 • (DUP	· · ·		,			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	ug/l	ug/l		%		6	
тох	ND	ND	1	0.000		.0	

L1221863-01 Original Sample (OS) • Duplicate (DUP)

L1221863-01 Origir	nal Sample	(OS) • Dup	licate (I	OUP)			
(OS) L1221863-01 05/30/	20 13:55 • (DUF	P) R3533997-6	05/30/20	0 14:05			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	ug/l	ug/l		%		%	
TOX	ND	ND	1	0.000		20	

L1221863-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-02 05/30)/20 14:15 • (DUP) R3533997-7	05/30/20) 14:26		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOX	ND	ND	1	0.000		20

L1221863-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-03 05/30/2	S) L1221863-03 05/30/20 16:16 • (DUP) R3533997-8 05/30/20 16:26									
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits				
Analyte	ug/l	ug/l		%		%				
TOX	ND	ND	1	0.000		20				

L1221863-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-04 05/30/2	DS) L1221863-04 05/30/20 16:36 • (DUP) R3533997-9 05/30/20 16:46								
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits			
Analyte	ug/l	ug/l		%		%			
TOX	ND	ND	1	0.000		20			

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SDG: L1221863

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Wet Chemistry by Method 9020B

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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L1221863-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-05	05/30/20 16:57 •	(DUP) R3533997-10	05/30/20 17:08
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L1221863-06 Original Sample (OS) • Duplicate (DUP)

-1221863-06 Origi OS) L1221863-06 05/30								
,	Original Result	,		DUP RPD	DUP Qualifier	DUP RPD Limits		
nalyte	ug/l	ug/l		%		%		
OX	ND	ND	1	0.000		20		

L1221863-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-07 05/30/	/20 17:40 • (DUF	P) R3533997-1	2 05/30/2	0 17:50		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOX	ND	ND	1	0.000		20

L1221863-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-08 06/02/	S) L1221863-08 06/02/20 14:06 • (DUP) R3534293-3 06/02/20 14:17									
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits				
Analyte	ug/l	ug/l		%		%				
TOX	ND	ND	1	50.1	<u>P1</u>	20				

L1221863-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1221863-09 06/02/	S) L1221863-09 06/02/20 14:28 • (DUP) R3534293-4 06/02/20 14:38								
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits			
Analyte	ug/l	ug/l		%		%			
ТОХ	ND	ND	1	200	<u>P1</u>	20			

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Wet Chemistry by Method 9020B

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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L1221863-10 Original Sample (OS) • Duplicate (DUP)

, , , , , , , , , , , , , , , , , , ,	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	ug/l	ug/l		%		%	
ТОХ	ND	ND	1	0.000		20	

L1222370-01 Original Sample (OS) • Duplicate (DUP)

L1222370-01 C	riginal Sample	e (OS) • Du	plicate (DUP)			⁴ Cn
(OS) L1222370-01 0	6/02/20 16:08 • (DL	JP) R3534293-	8 06/02/2	20 17:10			
	Original Resu	It DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	⁵ Sr
Analyte	ug/l	ug/l		%		%	
ТОХ	202	124	1	47.7	<u>P1</u>	20	်ီဝင

L1222374-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-01 06/02/	'20 16:20 • (DUF	P) R3534293-9	06/02/2	0 17:21		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
ТОХ	ND	ND	1	0.000		20

L1222374-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1222374-02 06/02/	(OS) L1222374-02 06/02/20 16:30 • (DUP) R3534293-10 06/02/20 17:31									
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits				
Analyte	ug/l	ug/l		%		%				
TOX	ND	ND	1	0.000		20				

Laboratory Control Sample (LCS)

(LCS) R3533315-1 05/29/2	20 14:36				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
TOX	200	184	91.8	85.0-115	

ACCOUNT:	
SCS Engineers - KS	

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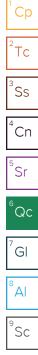
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QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 06/02/2	20 14:28 • (MS)	R3534293-6 (06/02/20 15:17	• (MSD) R3534	293-7 06/02/2	20 15:29						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOX	200	ND	245	234	123	117	1	80.0-120	J5		4.71	20



ACCOUNT: SCS Engineers - KS

PROJECT: 27213168.20

SDG: L1221863

DATE/TIME: 07/22/20 07:27

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QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08

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Method Blank (MB)

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

MB Result	MB Qualifier	MB MDL	MB RDL		2
ug/l		ug/l	ug/l		T
U		379	1000		
U		64.0	150		35
U		594	5000		
			ug/l ug/l U 379 U 64.0	ug/l ug/l U 379 1000 U 64.0 150	ug/l ug/l U 379 U 64.0

L1221627-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1221627-10 05/28/2	20 15:58 • (DUP)) R3533046-3	05/28/20	0 16:10		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	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 05/28/2	20 23:26 • (DUP	9) R3533046-8	8 05/28/2	0 23:39		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	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				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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	

ACCOUNT:
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SDG: L1221863

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QUALITY CONTROL SUMMARY

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L1221627-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221627-11 05/28/20) 16:23 • (MS) R	3533046-4 05	5/28/20 16:36 •	(MSD) R35330	046-5 05/28/2	0 16:49						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
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 C	5/28/20 22:10	• (MSD) R353	3046-7 05/28/	/20 22:22						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	69300	116000	116000	94.0	94.1	1	80.0-120	E	E	0.0372	15
Fluoride	5000	ND	4660	4690	91.5	92.1	1	80.0-120			0.687	15

PROJECT: 27213168.20

SDG: L1221863 DATE/TIME: 07/22/20 07:27

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Wet Chemistry by Method 9060A

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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Method Blank (MB)

(MB) R3533362-1 05/29/2	20 09:43			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
TOC (Total Organic Carbon)	218	J	102	1000

L1221841-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1221841-01 05/29/2	20 11:46 • (DUP) I	R3533362-3	05/29/20	12:09		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	3830	3860	1	0.833		20

L1221863-08 Original Sample (OS) • Duplicate (DUP)

L1221863-08 Origi	nal Sample	(OS) • Duj	plicate (DUP)			
(OS) L1221863-08 05/29	/20 17:00 • (DUF	P) R3533362-6	6 05/29/2	0 17:18			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD .imits	
Analyte	ug/l	ug/l		%		6	
TOC (Total Organic Carbon)	8680	8640	1	0.439		20	

Laboratory Control Sample (LCS)

(LCS) R3533362-2 05/29	9/20 10:24				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
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 C	5/29/20 15:00	D • (MSD) R353	3362-5 05/29	/20 15:30						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
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 19:1	0 • (MSD) R353	3362-8 05/2	9/20 19:49							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	
TOC (Total Organic Carbon)	50000	1350	52000	53900	101	105	1	80.0-120			3.59	20	
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Mercury by Method 7470A

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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Method Blank (MB)

Method Blau	K (IVIB)						
(MB) R3532112-1 ()5/27/20 10:31						
	MB Result	MB Qualifier	MB MDL	MB RDL			
Analyte	ug/l		ug/l	ug/l			
Mercury	U		0.100	0.200			

Laboratory Control Sample (LCS)

(LCS) R3532112-2 05/2	7/20 10:33				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Mercury	3.00	3.20	107	80.0-120	

L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221863-09 05/27/2	(OS) L1221863-09 05/27/20 10:35 • (MS) R3532112-3 05/27/20 10:37 • (MSD) R3532112-4 05/27/20 10:39												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	
Mercury	3.00	ND	2.84	2.90	94.6	96.8	1	75.0-125			2.26	20	

SDG: L1221863

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QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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

(1112) 1100000270110				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	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

Laboratory Control Sample (LCS)

(LCS) R3533275-2 05/2	29/20 13:29				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
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 C)5/29/20 13:37	' • (MSD) R3533	3275-5 05/29/	/20 13:39							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	
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	
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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1221863-01,02,03,04,05,06,07,08,09,10

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L1221863-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	10000	343000	347000	345000	49.5	27.5	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	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	V	V	0.690	20

L1221848-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
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

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SDG: L1221863

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QUALITY CONTROL SUMMARY

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

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	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

Laboratory Control Sample (LCS)

SCS Engineers - KS

(LCS) R3531912-2 05/2	26/20 22:02				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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	

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

Analyte			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	

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Metals (ICPMS) by Method 6020

QUALITY CONTROL SUMMARY <u>L1221863-01,02,03,04,05,06,07,08,09</u>

(MB) R3533258-1	05/29/20 21:12	

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	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

Laboratory Control Sample (LCS)

(LCS) R3533258-2 05	/29/20 21:16				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	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)

Analyte Antimony Arsenic	ug/l 50.0	ug/l	ug/l	ua/l				Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
,	50.0			ug/l	%	%		%			%	%	
Arsenic		ND	48.5	53.6	97.1	107	1	75.0-125			9.89	20	
	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	

SCS Engineers - KS

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GLOSSARY OF TERMS

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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
В	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.

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SDG: L1221863

ACCREDITATIONS & LOCATIONS

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

Alahama	40660	Nahvas
Alabama		Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New H
Arkansas	88-0469	New Je
California	2932	New M
Colorado	TN00003	New Ye
Connecticut	PH-0197	North C
Florida	E87487	North 0
Georgia	NELAP	North 0
Georgia ¹	923	North [
Idaho	TN00003	Ohio-\
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregor
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South (
Kentucky ²	16	South I
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas
Maryland	324	Utah
Massachusetts	M-TN003	Vermo
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West V
Missouri	340	Wiscon
Montana	CERT0086	Wyomi

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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SCS Engineers - KS				Billing Info	s Payable			Pres		N	N	nalvsis/	Contan		Scivalit	<u> </u>			Chain of Custody	Page of
575 W. 110th Street Overland Park, KS 66210				8575 W.	5 W. 110th Street erland Park, KS 66210					C	27	4							Hace A	NALY tical[®] er for Testing & Innovetio
teport to: ason Franks			9 1		csengineers.		y.martin@ev		Pres		03	NO3				f.e.			12065 Lebanon Rd Mount Juliet, TN 3712 Phone: 615-758-5858 Phone: 800-767-5859	334533
Project Description: KCPL - Montrose Generating Station	Sec	an a	City/State Collected:						E-NG		E-HN	PE-H							Fax: 615-758-5859	
Phone: 913-681-0030	Client Project # 27213168.20				Lab Project # AQUAOPKS-MONTROSE				125mlHDPE-NoPres	4	250miHDPE-HNO3	250mIHDPE-HNO3	5		4				SDG #	121863
collected by (print): Whit Martin	Site/Facility ID.#			5. 	P.O. #				S04) 125	-H2SO	*	*	NoPre	РQ	I H2504			5.5	Acctnum: AQU	
Collected by (signature):	Rush? (Lab MUST Be Noti Same Day Five Day Next Day S Day (Rac Two Day 10 Day (Rac Three Day 10 Day (Rac Three Day 10 Day (Rac			Day (Rad Only)	y Lad Only) Date Re		te Results Needed		u	250mlHDPE-H2SO4	s, Metals	s, Metals	TDS 250miHDPE-NoPres	TOC 250mlAmb-HCI	1L-Amb-Add			Prelogin: P769455 PM: 206 - Jeff Carr		
Immediately Packed on Ice N Y _X Sample ID				T					Anions (Cld,	COD 250	Hardness,	Hardness,	TDS 250	OC 250	TOX 1L-A			-	PB: Shipped Via: Remarks	Sample # (lab only)
501	1	G	GW	Ι	9-21-	-20	1130	6	X	x	X	-	X	X	X					_ 0
502		1	GW		1		1605	6	X	X	X		X	X	x	-				- 0'
503			GW		1		1340	6	X	X	x		X	X	X					- 0
504			GW	1			1250	6	X	X	X		X	X	X					10
505			GW				1405	6	X	X	X		X	X	X					- 0
507		1	GW	-			1)40	6	X	X	X		X	X	X					-0
508			GW				b25	6	X	X	X		X	X	X					
509			GW				1755	6	X	X	X		X	X	X					-8
506		1	GW				1435	4		X		X		X	X			i den se		-0°
506 MS/MSD		N Lot	GW		V		1445	4		X		X		X	X				E.	- 04
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remark Hg,Ag,A	emarks:* Hg,Ag,Al,Ba,B,Ca,Cr,Co,Fe,Mg,Mn,Na,Ni,Sb,As,Be,Cd,C g,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: NP_Y_N COC Signed/Accurate: Y N Bottles arrive intact: Y N Correct bottles used: Y N			
DW - Drinking Water OT - Other			x Courier			Trackin							1.0		<u>_</u>		VOA Zei	ro Nea	volume sent: <u>If Applicabl</u> adspace: n Correct/Che	YN
Relinguished by : (Signature)		K	Date:	01	1300 Marked by: (Signature)					130	60	Trip Blar	M Hece	1.	CL/Me TBR		RAD SCI	reen «	<0.5 mR/hr:	N
Relinquished by : (Signature)		I	Date:	Tim		24 F	ed by: (Signa	-17 	1.	i di ka		Temp:	A3.	4	6)	Hold:	rauon	required by togi	Condition:
Relinquished by : (Signature)		1	Date:	Tim	e:	Receiv	e: Received for lab by:					Date: 5/23	3/20		345	5	HOId:			NCF /

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575 W. 110th Street overland Park, KS 66210			8575 W. 110th Street Overland Park, KS 66210													Netional	
ason Franks			Email To: jfranks@sc	sengineers.com;ja	in the first of	oPres		RON	HNO3						12065 Lebanon F Mount Juliet, TN Phone: 615-758- Phone: 800-767-	37122 5858	
oject Description: CPL - Montrose Generating Station Collected:				Please Cir PT MTC		TCIE:	N-30		H-30	PE-F						Fax: 615-758-585	Laveragen
hone: 913-681-0030	Client Project # 27213168.20			Lab Project # AQUAOPKS-MON			125mlHDPE-NoPres	4	250miHDPE-HNO3	250mIHDPE-HNO3	5		4			SDG # Table #	U221863
ollected by (print): Whit Martin	Site/Facility ID #			P.O. #			SO4) 125	250mIHDPE-H2SO4		*	TDS 250mlHDPE-NoPres	Ę	H2S04			Acctnum: AC	
collected by (signature):		(Lab MUST Be Day Five		Quote #			u.	HDPE	Metals	Metals	HDPE-	TOC 250mlAmb-HCI	1L-Amb-Add			Prelogin: P7	69455
mmediately		Day 5 Da	y (Rad Only) ay (Rad Only)	Date Result		No. of	Anions (Cld,	Soml		iess, N	Soml					PM: 206 - Jef PB:	f Carr
Packed on Ice N Y _X Sample ID	Comp/Grab	T	Depth	Date	Time	Cntrs	Anion	COD 2	Hardness,	Hardness,	TDS 2	TOC 2	TOX 1			Shipped Via: Remarks	Sample # (lab only)
DUPLICATE	Grab	GW		5/21/20	1435	4		X		X		x	x				-10
					A Starting					1							
	and a second	na di Californiana - 19 anna -			1.24 ² 1	+		-		1000							
		+								g 9							
						14											
										-							
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B Bioassay www - WasteWater	Remarks:* Hg	Ag,Al,Ba,B,Q r,Co,Fe,Mg,N	Ca,Cr,Co,Fe An,Na,Ni,Sl	 ,Mg,Mn,Na,Ni,Sł o,As,Be,Cd,Cu,Pb	 ,As,Be,Cd,C ,Se,Tl,Zn	e,TI,Zr	**					p er		Sample Receipt Checklis COC Seal Present/Intact: APP COC Signed/Accurate: Bottles arrive intact: Correct bottles used:			
DW - Drinking Water OT - Other	Samples return UPSFed	ed via: ExCourie	r	Track									2		VOA Zer	ent volume sent <u>If Applica</u> o Headspace: ation Correct/C	bleY_N
Relinquished by : (Signature)				e: 300 Regen	lan k		n.	13	00	Trip Bla		1	HCL Me TBR		RAD Scr	een <0.5 mR/hr:	N
Relinquished by : (Signature)		Date:	Tim	e: Recei	ved by: (Signa	ature)	dy for			Temp: Z.Y	#43 ±0=	C Bott	tles Recei	ved:		ration required by b	
Relinquished by ; (Signature)		Date:	Tim	e: Recei	ved for lab b	: (Signa	tyre)	2		Date:	21	Tim	au	6	Hold:		NCF / OK

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ATTACHMENT 1-4 July 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1240490 07/16/2020 27213168.20 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl ΆI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1240490 DATE/TIME: 07/23/20 11:53

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SAMPLE SUMMARY

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MW-605 L1240490-01 GW			Collected by G. Penaflor	Collected date/time 07/14/20 11:50	Received da 07/16/20 08:	
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
DUPLICATE 1 L1240490-02 GW			Collected by G. Penaflor	Collected date/time 07/14/20 11:55	Received da 07/16/20 08:	
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
MW-705 L1240490-03 GW			Collected by G. Penaflor	Collected date/time 07/14/20 11:10	Received da 07/16/20 08:	
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
Net 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	Collected date/time	Received date/time	
DUPLICATE 2 L1240490-04 GW			G. Penaflor	07/14/20 11:15	07/16/20 08:	40
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
Vet Chemistry by Method 9056A	WG1511233	20	07/18/20 21:02	07/18/20 21:02	ELN	Mt. Juliet, TN
Netals (ICP) by Method 6010B	WG1511785	1	07/20/20 22:58	07/21/20 12:02	CCE	Mt. Juliet, TN
· · · ·			01120120 22:00			
		·	Collected by G. Penaflor	Collected date/time 07/14/20 10:35	Received da 07/16/20 08:	te/time
MW-706 L1240490-05 GW Method	Batch	Dilution	Collected by G. Penaflor Preparation	Collected date/time 07/14/20 10:35 Analysis	Received da	te/time
MW-706 L1240490-05 GW Method			Collected by G. Penaflor	Collected date/time 07/14/20 10:35	Received da 07/16/20 08:	te/time 45
MW-706 L1240490-05 GW Method	Batch	Dilution	Collected by G. Penaflor Preparation date/time	Collected date/time 07/14/20 10:35 Analysis date/time	Received da 07/16/20 08: Analyst	te/time 45 Location Mt. Juliet, TN
MW-706 L1240490-05 GW	Batch	Dilution	Collected by G. Penaflor Preparation date/time 07/21/20 12:36	Collected date/time 07/14/20 10:35 Analysis date/time 07/21/20 23:49	Received da 07/16/20 08: Analyst EL	te/time 45 Location Mt. Juliet, TN te/time
MW-706 L1240490-05 GW Method Metals (ICP) by Method 6010B	Batch	Dilution	Collected by G. Penaflor Preparation date/time 07/21/20 12:36 Collected by	Collected date/time 07/14/20 10:35 Analysis date/time 07/21/20 23:49 Collected date/time	Received da 07/16/20 08: Analyst EL Received da	te/time 45 Location Mt. Juliet, TN te/time

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CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.20

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SAMPLE RESULTS - 01

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Wet Chemistry by Method 9056A

							l'c
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Chloride	62100		1000	1	07/18/2020 17:40	WG1511233	T



SAMPLE RESULTS - 02

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Τс

Wet Chemistry by Method 9056A

	, ,							1' 0
	F	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ι	ug/l		ug/l		date / time		2
Chloride	6	62100		1000	1	07/18/2020 18:35	WG1511233	T



Collected date/time: 07/14/20 11:10

SAMPLE RESULTS - 03

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Gravimetric Analysis	s by Method	2540	C-2011
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	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Dissolved Solids	1190000		20000	1	07/21/2020 20:34	WG1512349	
Wet Chemistry by	Method 9056A	N .					
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Sulfate	705000		50000	10	07/18/2020 19:12	WG1511233	
Metals (ICP) by Me	ethod 6010B						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Calcium	163000	01 V	1000	1	07/21/2020 11:46	WG1511785	

Calcium

SAMPLE RESULTS - 04

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Gravimetric Analysis by Method 2540 C-2011

163000

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Dissolved Solids	1200000		20000	1	07/21/2020 20:34	WG1512349
Wet Chemistry b	y Method 9056A					
	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Sulfate	695000		100000	20	07/18/2020 21:02	WG1511233
Metals (ICP) by N	lethod 6010B					
	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	

1

07/21/2020 12:02

WG1511785

1000

SAMPLE RESULTS - 05



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Metals (ICP) by Method 6010B

							1'0	
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			2
Boron	228		200	1	07/21/2020 23:49	WG1511789		T



SDG: L1240490

SAMPLE RESULTS - 06



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Metals (ICP) by Method 6010B

() 3							 1.0
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		 2
Boron	225		200	1	07/21/2020 12:04	WG1511785	T



ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1240490 DATE/TIME: 07/23/20 11:53 PAGE: 10 of 18

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY L1240490-03,04

ONE LAB. NATIONWIDE.

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Method Blank (MB)

(MB) R3552211-1 07/2	(MB) R3552211-1 07/21/20 20:34							
	MB Result	MB Qualifier	MB MDL	MB RDL				
Analyte	ug/l		ug/l	ug/l				
Dissolved Solids	U		2820	10000				

L1239512-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1239512-01 07/21/2	5) L1239512-01 07/21/20 20:34 • (DUP) R3552211-3 07/21/20 20:34										
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits					
Analyte	ug/l	ug/l		%		%					
Dissolved Solids	128000	130000	1	1.55		5					

L1240490-04 Original Sample (OS) • Duplicate (DUP)

L1240490-04 Or	iginal Sample	e (OS) • Duplicate (DUP)							
(OS) L1240490-04 07/	/21/20 20:34 • (DU	P) R3552211-4	+ 07/21/20	20:34					
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits		⁸ Al	
Analyte	ug/l	ug/l		%		%			
Dissolved Solids	1200000	1210000	1	1.49		5		⁹ Sc	

Laboratory Control Sample (LCS)

(LCS) R3552211-2 07	(LCS) R3552211-2 07/21/20 20:34									
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier					
Analyte	ug/l	ug/l	%	%						
Dissolved Solids	8800000	8820000	100	85.0-115						

DATE/TIME: 07/23/20 11:53

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3550834-1 07	7/18/20 09:10			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		379	1000
Sulfate	U		594	5000

L1240979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1240979-01 07/18	8/20 22:35 • (DUP) R3550834-7	07/18/20	22:53		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	17700	17700	1	0.00453		15
Sulfate	95100	95300	1	0.128		15

L1241024-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1241024-04 07/19/2	0 02:16 • (DUP)	R3550834-8	07/19/20	02:34					
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits			-
Analyte	ug/l	ug/l		%		%			l
Chloride	26400	26400	1	0.149		15			
Sulfate	78300	78400	1	0.124		15			

Laboratory Control Sample (LCS)

(LCS) R3550834-2 07/18	(LCS) R3550834-2 07/18/20 09:29								
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	ug/l	ug/l	%	%					
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 07/18/2	0 17:40 • (MS) F	3550834-3 0	7/18/20 17:58 •	(MSD) R3550	834-4 07/18/2	0 18:17						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	62100	111000	111000	98.1	98.3	1	80.0-120	E	E	0.119	15
Sulfate	50000	1790000	1710000	1700000	0.000	0.000	1	80.0-120	EV	EV	0.664	15

ACCOUNT:	
SCS Engineers -	КS

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ONE LAB. NATIONWIDE.

¹Cp ²Tc ³Ss

⁴Cn ⁵Sr ⁶Qc ⁷Gl

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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-03 07/18/2	20 18:53 • (MS)	R3550834-5 C	07/18/20 19:30	• (MSD) R3550	834-6 07/18/2	0 19:49						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
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	EV	EV	0.152	15

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1240490-03,04,06

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Method Blank (MB)

Method Blau	ik (IVIB)				
(MB) R3551586-1	07/21/20 11:22				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	
Boron	U		25.4	200	
Calcium	U		389	1000	

Laboratory Control Sample (LCS)

Spike Amount LCS Result LCS Rec. Rec. Limits Analyte ug/l %		(LCS) R3551586-2 07/21	/20 11:43					
nalyte ug/l ug/l % %			Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
	on 1000 973 97.3 80.0-120	Analyte	ug/l	ug/l	%	%		

L1240490-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

	<u> </u>	· · · ·		· · · ·									 8
(OS) L1240490-03 07/2	21/20 11:46 • (145)			. ,									A
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	9
Boron	1000	208	1190	1180	98.2	97.2	1	75.0-125			0.787	20	SC
Calcium	10000	163000	167000	170000	38.9	63.5	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	1.46	20	

ACCOUNT:	
SCS Engineers - K	S

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3551758-1 0	7/21/20 23:44			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Boron	U		25.4	200

Laboratory Control Sample (LCS)

(LCS) R3551758-2 07/2	1/20 23:47				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Boron	1000	990	99.0	80.0-120	

L1240490-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1240490-05 07/21/	20 23:49 • (MS)R3551758-4 ()7/21/20 23:55	• (MSD) R3551	758-5 07/21/2	0 23:58						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Boron	1000	228	1220	1210	99.1	98.4	1	75.0-125			0.540	20

GLOSSARY OF TERMS

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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 resul 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 fo 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.

PROJECT: 27213168.20

SDG: L1240490 DATE/TIME: 07/23/20 11:53

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ACCREDITATIONS & LOCATIONS

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
Alaska	17-026	Nevada
Arizona	AZ0612	New Hampshire
Arkansas	88-0469	New Jersey–NE
California	2932	New Mexico ¹
Colorado	TN00003	New York
Connecticut	PH-0197	North Carolina
Florida	E87487	North Carolina
Georgia	NELAP	North Carolina
Georgia ¹	923	North Dakota
Idaho	TN00003	Ohio–VAP
Illinois	200008	Oklahoma
Indiana	C-TN-01	Oregon
lowa	364	Pennsylvania
Kansas	E-10277	Rhode Island
Kentucky ¹⁶	90010	South Carolina
Kentucky ²	16	South Dakota
Louisiana	AI30792	Tennessee ¹⁴
Louisiana 1	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermont
Michigan	9958	Virginia
Minnesota	047-999-395	Washington
Mississippi	TN00003	West Virginia
Missouri	340	Wisconsin
Montana	CERT0086	Wyoming

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.20

L1240490

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				Billing Infor	rmation:		T		17. ut -	A	nalvsis /	Contair	ner / Pres	ervative	1.25		Chain of Custody	Page of
SCS Engineers - KS				8575 W. 110th Street			Pres Chk	52	67								- Pace	Analytical *
8575 W. 110th Street Overland Park, KS 66210				Overland Park, KS 66210														
Report to: J ason Franks			5	Email To: jfranks@scsengineers.com;jay.martin@eve					VO3	oPres			1				12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58 Phone: 800-767-58	58 TEL ELG
Project Description: Evergy - Montrose Generating Station			City/State Collected:	Please Circ PT MT CT				33						24			Fax: 615-758-5859	
Phone: 913-681-0030	Client P 27213				Lab Project # AQUAOPKS-MONTROSE			UNH-	PE-H	DE-N	res				5		SDG # []	240790
Collected by (print): G. P. C. A. F. IN	Site/Facility ID #			P.O. #			250mHDPE-HNO3	6010 250mlHDPE-HNO3	25mlHDPE-NoPres	PE-NoP	NoPres					Acctnum: AQUAOPKS		
Collected by (signature):	Rush? (Lab MUST Be Notified Same DayFive Day Next Day5 Day (Rad Or SDay (Rad Or			Day	Quote #	sults, Needed		6010 250	6010 25	90561	25mIHD	250mlHDPE-NoPres					Template: T135965 Prelogin: P784706 PM: 206 - Jeff Carr	
Immediately Packed on Ice N Y	Two Day 10 Day (Rad O				St	/	No. oi	Gala Sala	1	A STATE		250m					PB: Shipped Via:	
Sample ID	Comp/Grab Matrix * Depth				Date	Time	Critrs	Boron	Calcium	Chloride	Sulfa	TDS :					Remarks	Sample # (lab only)
MW-605	GR	AB	GW		7114/2	0 1150	1			X								-01
MW-605 MS/MSD			GW	1.2		1200	1			X	- 3				100			61
DUPLICATE 1		-3	GW			1155	5 1			x			22				. And the second	02
MW-705			GW	1000 (120 (120 (120))) (120) (1110	3		X		X	X						03
MW-705 MS/MSD		14	GW			1120	3		X		X	X			Salar Salar		- 	03
DUPLICATE 2			GW	1219		1115	3		X		X	X						64
MW-706			GW	175		1035	5 1	X			1.1							05
MW-706 MS/MSD		1	GW	1	San 2	1045	5 1	X										09
DUPLICATE 3		1	GW	199.98	V	1040	-	X							232		Y	00
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:										pH Flow	v	_ Temp _ Othe			COC Seal COC Signe Bottles 2 Correct 1	mple Receipt Ct Present/Intact ed/Accurate: arrive intact: cottles used: nt volume sent:	
DW - Drinking Water OT - Other	Samples re		l via: Courier			acking.#	24	S	43	30	2	658))	de No.		VOA Zero Preserva	le Y N ecked: Y N	
Relinquisted by : (Signature)	4	Da	ate: 7/15/2	0 []	325 (lin 10	lon		15-2 132		нар віа	nk Recei		HCL / Med TBR	H		en <0.5 mR/hr:	
Relinquished by : (Signature)		D/	áte:	Tim	Re: Re	ceived by: (Sign	ature)				Temp: 0.9-	.]s0	C Botti 3CK		id:	it preserva	tion required by Log	
Relinquished by : (Signature)		Da	ate:	Tim	ie: Re	/		Date: Time: 7/16/20 8:45			R	Hold:		Condition: NCF / OK				

Jared Morrison December 20, 2022

ATTACHMENT 1-5 August 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1255487 08/27/2020 27213168.20 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1255487 DATE/TIME: 09/01/20 08:36

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¹ Cp
² Tc
³Ss
⁴ Cn
⁵ Sr

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Cn: Case Narrative	4
Sr: Sample Results	5
MW-605 L1255487-01	5
DUPLICATE 1 L1255487-02	6
Qc: Quality Control Summary	7
Wet Chemistry by Method 9056A	7
GI: Glossary of Terms	8
Al: Accreditations & Locations	9
Sc: Sample Chain of Custody	10



ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1255487 DATE/TIME: 09/01/20 08:36

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

MW-605 L1255487-01 GW			Collected by Whit Martin	Collected date/time 08/26/20 10:30	Received da 08/27/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1534670	1	08/30/20 21:16	08/30/20 21:16	ST	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	
DUPLICATE1 L1255487-02 GW			Whit Martin	08/26/20 10:30	08/27/20 09	:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1534670	1	08/30/20 22:11	08/30/20 22:11	ST	Mt. Juliet, TN

Sc

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Tc

CASE NARRATIVE

*

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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.20

SDG: L1255487 DATE/TIME: 09/01/20 08:36

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SAMPLE RESULTS - 01

*

Wet Chemistry by Method 9056A

wet enemistry by							1 Cn	
	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср	
Analyte	ug/l		ug/l		date / time		 2	Ĺ
Chloride	61600		1000	1	08/30/2020 21:16	WG1534670	⁻Tc	

^³ Ss
⁴ Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
⁰Sc

SAMPLE RESULTS - 02 L1255487

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Wet Chemistry by Method 9056A

	, ,	Result	Qualifier	RDL	Dilution	Analysis	Batch	 `Ср
Analyte		ug/l		ug/l		date / time		2
Chloride		61500		1000	1	08/30/2020 22:11	WG1534670	Tc



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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3565863-1 08/30/20 10:36							
	MB Result	MB Qualifier	MB MDL	MB RDL			
Analyte	ug/l		ug/l	ug/l			
Chloride	U		379	1000			

L1255647-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255647-01 08/30/2	20 22:48 • (DUF	P) R3565863-	5 08/30/2	0 23:06		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	3240	3250	1	0.440		15

Laboratory Control Sample (LCS)

(LCS) R3565863-2 08/3	0/20 10:55				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	39400	98.5	80.0-120	

L1255487-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255487-01 08/30/	(OS) L1255487-01 08/30/20 21:16 • (MS) R3565863-3 08/30/20 21:34 • (MSD) R3565863-4 08/30/20 21:52													
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits		
Analyte	ua/l	ua/I	ua/l	ug/l	0/	0/		0/			0/	0/		
Thatyte	ugn	uy/i	uy/i	ug/l	/0	/0		/0			/0	/0		

L1255772-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1255772-06 08/31/20 06:28 • (MS) R3565863-7 08/31/20 07:42											
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier				
Analyte	ug/l	ug/l	ug/l	%		%					
Chloride	50000	1920	53200	103	1	80.0-120					

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
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GLOSSARY OF TERMS

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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

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The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

PROJECT: 27213168.20

SDG: L1255487

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ACCREDITATIONS & LOCATIONS

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	Nebrask
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Jer
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North Ca
Florida	E87487	North Ca
Georgia	NELAP	North Ca
Georgia ¹	923	North Da
Idaho	TN00003	Ohio–V/
Illinois	200008	Oklahon
Indiana	C-TN-01	Oregon
lowa	364	Pennsyl
Kansas	E-10277	Rhode Is
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	Al30792	Tenness
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washing
Mississippi	TN00003	West Vir
Missouri	340	Wiscons
Montana	CERT0086	Wyomin

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico 1	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 1 4	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



27213168.20

L1255487

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			Billing Infor	mation:						Analysis	s / Contai	iner / Prese	vative		Chain of C	Custody	Page of
SCS Engineers - KS				Accounts Payable 8575 W. 110th Street Overland Park, KS 66210			Pres Chk								_	Pace Al	nalytical* r for Testing & Innovation
overland Park, KS 66210																	
Report to: Jason Franks			Email To: jfranks@scsengineers.com;jay.martin@ev				evergy.c								Phone: 615	anon Rd et, TN 3712 5-758-5858 0-767-5859	
roject Description: Evergy - Montrose Generating Station	-	City/State Collected:	Yontro.	se.MO		Please Cir PT MT		Pre							Fax: 615-7	58-5859	
hone: 913-681-0030	Client Proje 27213168	ct #		Lab Project		NTROSE		SmiHDPE-NoPr								L12 M05	55487
ollected by (print): Whit Martin	Site/Facility	ID #		P.O. #				25mlHI							Acctnum		
collected by (signature): Wath Marta mmediately Packed on Ice N_YX_		Day 10 D		Quote #	esults Ne	eeded	No. of	- 9056 1							PB:	: P789 - Jeff Ca	898
Sample ID	Comp/Gra	b Matrix *	Depth	Date	1	Time	Cntrs	Chloride							Shipped		Sample # (lab only)
NW-605	Grab	GW		18/26/	201	1030	1	X									-01
MW-605 MS/MSD	Grab			8/26/	201	030	1	x									01
DUPLICATE 1	Grab			8/26/	201	030	1	X									02
				-													
							-										
					-		+										
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay	Remarks:									pł Flo		Temp Other _		COC Sig Bottles	Sample Recei 1 Present/I ned/Accurat arrive int bottles us	e: act:	Cklist NP Y N N N N N N N
WW - WasteWater DW - Drinking Water OT - Other	Samples return UPSFed	ed via: IExCourie	r	1	racking #	4		179	030	536		000000000000000000000000000000000000000		Suffici VOA Zer	ent volume	sent: licable	
Relinquished by : (Signature)		Date: 0/26/	20 Tim	700	Received	by: (Signat	ture)			Trip B	lank Rece	eived: Yes O HC TB	L/MeoH	RAD Sor	een <0.5 mR	/hr:	_r_n
Relinguished by : (Signature)		Date:	1 Tim	58D 1	r 11	by: (Signa	ture)	i s	4	A.H. 3.4	13	Ř	Received:	If preserv	vation required	l by Login	n: Date/Time
Relinquished by : (Signature)		Date:	Tim		Received	for lab by	1 .	ture	1	Date:	1.7/2	Time:	9:30	Hold:			Condition: NCF / OK

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ANALYTICAL REPORT

September 03, 2020

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1255485 08/27/2020 27213168.20 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1255485 DATE/TIME: 09/03/20 14:28

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

MW-605 L1255485-01 GW			Collected by Whit Martin	Collected date/time 08/26/20 10:30	Received dat 08/27/20 09	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 2320 B-2011	WG1534051	1	09/02/20 23:59	09/02/20 23:59	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1533924	50	08/28/20 12:43	08/28/20 12:43	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1535077	1	09/01/20 11:45	09/01/20 15:29	EL	Mt. Juliet, TN



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SDG: L1255485 DATE/TIME: 09/03/20 14:28

CASE NARRATIVE

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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

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Collected date/time: 08/26/20 10:30

SAMPLE RESULTS - 01



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Wet Chemistry by Method 2320 B-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	— Cp
Analyte	ug/l		ug/l		date / time		2
Alkalinity,Bicarbonate	36800		20000	1	09/02/2020 23:59	WG1534051	Tc
Alkalinity,Carbonate	ND		20000	1	09/02/2020 23:59	WG1534051	
							2

Sample Narrative:

L1255485-01 WG1534051: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Sulfate	1690000		250000	50	08/28/2020 12:43	WG1533924

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch		GI
Analyte	ug/l		ug/l		date / time		8	_
Calcium	396000		1000	1	09/01/2020 15:29	WG1535077	Ă	Al
Magnesium	97500		1000	1	09/01/2020 15:29	WG1535077		
Potassium	2440		2000	1	09/01/2020 15:29	WG1535077	9	Sc
Sodium	244000		3000	1	09/01/2020 15:29	WG1535077		JC

Wet Chemistry by Method 2320 B-2011

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3566888-1 09/0)2/20 22:33			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Alkalinity,Bicarbonate	U		8450	20000
Alkalinity,Carbonate	U		8450	20000

Sample Narrative:

BLANK: Endpoint pH 4.5

L1255315-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255315-01 09/02/	/20 22:52 • (DUP) R3566888-2	2 09/02/2	0 22:59		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	381000	381000	1	0.0890		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1254413-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1254413-04 09/03/2	20 01:03 • (DUP) R3566888-4	09/03/2	0 01:11		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Alkalinity,Bicarbonate	448000	446000	1	0.531		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace DUP: Endpoint pH 4.5

ACCOUNT:
SCS Engineers - KS

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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1255485-01

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Method Blank (MB)

(MB) R3565005-1 0	8/28/20 05:09			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Sulfate	U		594	5000

L1255046-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1255046-01 08/28/2	20 06:23 • (DUI	P) R3565005-3	3 08/28/2	20 06:34				
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	UP RPD mits		
Analyte	ug/l	ug/l		%				
Sulfate	16100	16900	1	4.57				

L1255482-06 Original Sample (OS) • Duplicate (DUP)

L1255482-06	Original Sample	e (OS) • Du	uplicate	(DUP)			
(OS) L1255482-06	08/28/20 12:00 • (DL	JP) R3565005	-10 08/28	/20 12:33			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	
Analyte	ug/l	ug/l		%		%	
Sulfate	27800	27600	1	0.647		5	

Laboratory Control Sample (LCS)

(LCS) R3565005-2 08/2	8/20 05:19				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Sulfate	40000	39900	99.7	80.0-120	

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

(OS) • (MS) R3565005-4	08/28/20 07:18 • (MSD) R35	65005-5 08/2	28/20 07:28								
	Spike Amount Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%		%			%	%
Sulfate	50000	98500	97900	101	100	1	80.0-120			0.558	15

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

(OS) • (MS) R3565	005-6 08/28/20 08:34 • (MSD) R	3565005-7 08	3/28/20 08:45									
	Spike Amount Original Res	ult MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	%	%		%			%	%	
Sulfate	50000	232000	225000	101	87.4	1	80.0-120	Ē	Ē	2.92	15	
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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

L1255482-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255482-04 08/28	8/20 11:17 • (MS)	R3565005-8 0	8/28/20 11:27	• (MSD) R3565	005-9 08/28/	20 11:38						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Sulfate	50000	80100	130000	130000	99.0	99.0	1	80.0-120	E	E	0.0218	15

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1255485-01

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Method Blank (MB)

(MB) R3566148-1	09/01/20 14:20

	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	
Calcium	U		389	1000	
Magnesium	U		111	1000	
Potassium	U		510	2000	
Sodium	U		1400	3000	

Laboratory Control Sample (LCS)

(LCS) R3566148-2 09/0	1/20 14:23				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Calcium	10000	9910	99.1	80.0-120	
Magnesium	10000	9380	93.8	80.0-120	
Potassium	10000	9340	93.4	80.0-120	
Sodium	10000	9980	99.8	80.0-120	

L1255433-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1255433-06 09/01	/20 14:26 • (MS)	R3566148-4 C	9/01/20 14:31	• (MSD) R3566	148-5 09/01/	20 14:34						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Calcium	10000	37100	46600	46500	95.3	93.5	1	75.0-125			0.370	20
Magnesium	10000	6610	15900	15800	92.6	91.8	1	75.0-125			0.510	20
Potassium	10000	5940	15400	15300	94.5	93.1	1	75.0-125			0.900	20
Sodium	10000	171000	178000	180000	76.1	88.0	1	75.0-125			0.664	20

GLOSSARY OF TERMS

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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).

PROJECT: 27213168.20

SDG: L1255485

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ACCREDITATIONS & LOCATIONS

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
Alaska	17-026	Nevada
Arizona	AZ0612	New Hampshire
Arkansas	88-0469	New Jersey-NELAP
California	2932	New Mexico ¹
Colorado	TN00003	New York
Connecticut	PH-0197	North Carolina
Florida	E87487	North Carolina ¹
Georgia	NELAP	North Carolina ³
Georgia ¹	923	North Dakota
Idaho	TN00003	Ohio–VAP
Illinois	200008	Oklahoma
Indiana	C-TN-01	Oregon
lowa	364	Pennsylvania
Kansas	E-10277	Rhode Island
Kentucky 16	90010	South Carolina
Kentucky ²	16	South Dakota
Louisiana	AI30792	Tennessee ¹⁴
Louisiana 1	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermont
Michigan	9958	Virginia
Minnesota	047-999-395	Washington
Mississippi	TN00003	West Virginia
Missouri	340	Wisconsin
Montana	CERT0086	Wyoming

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.

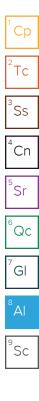


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~			Billing Info	rmation:		T	T		A	Analysis /	Containe	er / Prese	rvative			Chain of Custody	Page _ of _
SCS Engineers - KS 3575 W. 110th Street Overland Park, KS 66210			8575 W.	s Payable 110th Street d Park, KS 662		Pres Chk		22								Pace / Netional Ca	Analytical* Inter for Testing 8 innoveti
Report to: Jason Franks				csengineers.com		vergy.c		NO3								12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-585	
Project Description: Evergy - Montrose Generating Station		City/State Collected: /		se, MO	Please C PT MT	ircle:	Pres	H-34C								Phone: 800-767-585 Fax: 615-758-5859	
Phone: 913-681-0030	Client Project 27213168			Lab Project #	-MONTROS	E	PE-No	250mIHDPE-HNO3								SDG #	2 <i>55985</i> 50
Collected by (print): Whi + Martin Collected by (signature):	Site/Facility			P.O. # Quote #			25miHDI	K, Na 25	-NoPres							Acctnum: AQL	IAOPKS
Marta Immediately	Same Same Next D Two D		Day	Date Resu	Its Needed	No.	ALKCA 125mHDPE-NoPres	Mg,	SO4 125mHDPE-NoPres							Prelogin: P78 PM: 206 - Jeff C PB:	9900
Packed on Ice N Y X Sample ID	Three Comp/Grab	1	Depth	Date	Time	of Cntrs	ALKBI,	Metals-Ca,	4 12							Shipped Via:	
			[Deput		1	1	ALH	Me	so							Remarks	Sample # (lab only)
MW-605		GW		8/26/2	1030	3	X	X	X	2							-01
				+	_												
						+				-							
										-		_					
		-				+											
						+											
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	24 July 1																
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:		pH Temp CoC Seal Present/ COC Signed/Accura Bottles arrive in Flow Other Correct bottles						sent/Intact: Accurate: We intact:	ntact: Z N							
DW - Drinking Water OT - Other	Samples returne UPSFedE				king #		179	03		10 3				Suffic VOA Ze	ro Hea	volume sent: <u>If Applicabl</u> adspace:	<u>e</u> YN
Relinquished by : (Signature)		B/26/2	D IT	7002 Rece	ved by: (Signa	ture)						ed: Yes	L/MeoH			n Correct/Che 0.5 mR/hr:	cked: _YN
Relinguished by : (Signature)		Date: 8/24/2	D 19	my	ived by: (Signa	ture)			1	Tel 1	300	Bottles	Received:	If prese	rvation	required by log	n: Date/Time
Relinquished by : (Signature)		Date:	Time	e: Rece	ived for lab by	: (Signat	ture)			Date: 1	1/101	Time:	7:3D	Hold:			Condition: NCF / OK

ATTACHMENT 1-6 November 2020 Sampling Event Laboratory Report



ANALYTICAL REPORT

November 24, 2020

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1284913 11/12/2020 27213168.20 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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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SAMPLE SUMMARY

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MW-601 L1284913-01 GW			Collected by Jason R. Franks	Collected date/time 11/10/20 11:05	Received da 11/12/20 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1577446	1	11/17/20 01:34	11/17/20 17:00	CAT	Mt. Juliet, Ti
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 18:17	11/23/20 18:17	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 18:34	11/23/20 18:34	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 21:52	CCE	Mt. Juliet, Ti
			Collected by Jason R. Franks	Collected date/time 11/10/20 13:20	Received da 11/12/20 09:0	
MW-602 L1284913-02 GW	Datah	Dilution				
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1576598	1	11/15/20 15:18	11/15/20 15:59	TH	Mt. Juliet, Tl
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 18:51	11/23/20 18:51	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 19:42	11/23/20 19:42	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 21:40	CCE	Mt. Juliet, Ti
MW-603 L1284913-03 GW			Collected by Jason R. Franks	Collected date/time 11/10/20 13:55	Received da 11/12/20 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
metrod	Batch	Dilution	date/time	date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1576598	1	11/15/20 15:18	11/15/20 15:59	TH	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 19:59	11/23/20 19:59	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 20:16	11/23/20 20:16	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 21:55	CCE	Mt. Juliet, TI
MW-604 L1284913-04 GW			Collected by Jason R. Franks	Collected date/time 11/10/20 14:00	Received da 11/12/20 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1576598	1	11/15/20 15:18	11/15/20 15:59	TH	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 20:32	11/23/20 20:32	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 21:23	11/23/20 21:23	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 21:58	CCE	Mt. Juliet, TI
			Collected by	Collected date/time	Received da	
MW-605 L1284913-05 GW			Jason R. Franks	11/10/20 14:45	11/12/20 09:0	00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1576598	1	11/15/20 15:18	11/15/20 15:59	TH	Mt. Juliet, Ti
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 21:40	11/23/20 21:40	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 21:57	11/23/20 21:57	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 22:01	CCE	Mt. Juliet, Ti
DUPLICATE #2 L1284913-06 GW			Collected by Jason R. Franks	Collected date/time 11/10/20 13:20	Received da 11/12/20 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Gravimetric Analysis by Method 2540 C-2011	WG1577446	1	11/17/20 01:34	11/17/20 17:00	CAT	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	1	11/23/20 22:14	11/23/20 22:14	ELN	Mt. Juliet, TI
Wet Chemistry by Method 9056A	WG1579489	50	11/23/20 22:31	11/23/20 22:31	ELN	Mt. Juliet, TI
Metals (ICP) by Method 6010B	WG1577479	1	11/18/20 10:12	11/18/20 22:09	CCE	Mt. Juliet, TI
			CDC.	DAT		

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SCS Engineers - KS

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CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

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SAMPLE RESULTS - 01

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	4280000		20000	1	11/17/2020 17:00	WG1577446	Tc

Wet Chemistry by Method 9056A

Collected date/time: 11/10/20 11:05

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Chloride	33400		1000	1	11/23/2020 18:17	WG1579489
Fluoride	336		150	1	11/23/2020 18:17	WG1579489
Sulfate	2860000		250000	50	11/23/2020 18:34	WG1579489

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Boron	ND		200	1	11/18/2020 21:52	WG1577479	
Calcium	479000		1000	1	11/18/2020 21:52	WG1577479	

SAMPLE RESULTS - 02 L1284913



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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	1800000		10000	1	11/15/2020 15:59	WG1576598	² Tc

Wet Chemistry by Method 9056A

Collected date/time: 11/10/20 13:20

Analyte ug/l date / time Dissolved Solids 180000 1 11/15/2020 15:59 WG1576598 Wet Chemistry by Method 9056A Result Qualifier RDL Dilution Analysis Batch Analyte ug/l ug/l date / time date / time date / time MG1579489 Chloride 3770 B 1000 1 11/23/2020 18:51 WG1579489 Fluoride ND 150 1 11/23/2020 19:51 WG1579489 Sulfate 1080000 250000 50 11/23/2020 19:42 WG1579489		Result	Qualifier	RDL	Dilution	Alidiysis	Balch	
Result Qualifier RDL Dilution Analysis Batch Analyte ug/l ug/l ug/l date / time Chloride 3770 B 1000 1 1/23/2020 18:51 WG1579489 Fluoride ND 150 1 1/23/2020 18:51 WG1579489	Analyte	ug/l		ug/l		date / time		-
ResultQualifierRDLDilutionAnalysisBatchAnalyteug/lug/ldate / timeChloride3770B100011/23/2020 18:51WG1579489FluorideND15011/23/2020 18:51WG1579489	Dissolved Solids	1800000		10000	1	11/15/2020 15:59	WG1576598	2
Analyte ug/l date / time Chloride 3770 B 1000 1 1/23/2020 18:51 WG1579489 Fluoride ND 150 1 1/23/2020 18:51 WG1579489	Wet Chemistry by N	lethod 9056A						3
Chloride 3770 B 1000 1 11/23/2020 18:51 WG1579489 Fluoride ND 150 1 11/23/2020 18:51 WG1579489		Result	Qualifier	RDL	Dilution	Analysis	Batch	
Fluoride ND 150 1 11/23/2020 18:51 WG1579489	Analyte	ug/l		ug/l		date / time		2
	Chloride	3770	B	1000	1	11/23/2020 18:51	WG1579489	
Sulfate 1080000 250000 50 11/23/2020 19:42 WG1579489	Fluoride	ND		150	1	11/23/2020 18:51	WG1579489	
	Sulfate	1080000		250000	50	11/23/2020 19:42	WG1579489	Ę

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	4180		200	1	11/18/2020 21:40	WG1577479
Calcium	313000	V	1000	1	11/18/2020 21:40	WG1577479



SDG: L1284913

SAMPLE RESULTS - 03 L1284913

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier RI	DL Dilu	ution A	Inalysis	Batch	Ср
Analyte	ug/l	ц	g/l	da	late / time		2
Dissolved Solids	2850000	20	0000 1	11,	1/15/2020 15:59	<u>WG1576598</u>	Tc

Wet Chemistry by Method 9056A

Collected date/time: 11/10/20 13:55

Wet Chemistry b	by Method 9056A					
	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Chloride	6270		1000	1	11/23/2020 19:59	WG1579489
Fluoride	516		150	1	11/23/2020 19:59	WG1579489
Sulfate	2090000		250000	50	11/23/2020 20:16	WG1579489

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	5690		200	1	11/18/2020 21:55	WG1577479
Calcium	410000		1000	1	11/18/2020 21:55	WG1577479



SAMPLE RESULTS - 04 L1284913

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Gravimetric Analysis by Method 2540 C-2011

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	Result	Qualifier	RDL	Dilution	Analysis	Batch	Cp
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2790000		20000	1	11/15/2020 15:59	WG1576598	Tc
Wet Chemistry by	Method 9056A	L					³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		⁴ Cn
Chlorido	14500		1000	1	11/22/2020 20.22	W/C1E70490	

Wet Chemistry by Method 9056A

Collected date/time: 11/10/20 14:00

							- I
	Result	Qualifier F	RDL	Dilution	Analysis	Batch	L
Analyte	ug/l		ug/l		date / time		- [
Chloride	14500	1	000	1	11/23/2020 20:32	WG1579489	
Fluoride	409	1	50	1	11/23/2020 20:32	WG1579489	
Sulfate	1740000	2	250000	50	11/23/2020 21:23	WG1579489	

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	4820		200	1	11/18/2020 21:58	WG1577479
Calcium	436000		1000	1	11/18/2020 21:58	WG1577479

SAMPLE RESULTS - 05 L1284913

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2730000	<u>13</u>	20000	1	11/15/2020 15:59	WG1576598	² Tc

Wet Chemistry by Method 9056A

Wet Chemistry I	by Method 9056A						³ Ss
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		4 Cn
Chloride	59700		1000	1	11/23/2020 21:40	WG1579489	CII
Fluoride	182		150	1	11/23/2020 21:40	WG1579489	5
Sulfate	1790000		250000	50	11/23/2020 21:57	WG1579489	⁵ Sr

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	1470		200	1	11/18/2020 22:01	WG1577479
Calcium	395000		1000	1	11/18/2020 22:01	WG1577479

SDG: L1284913

SAMPLE RESULTS - 06 L1284913

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср	
Analyte	ug/l		ug/l		date / time		2	ī
Dissolved Solids	1790000		13300	1	11/17/2020 17:00	WG1577446	Tc	

Wet Chemistry by Method 9056A

	Result	addimen	RBE	Diracion	741413515	Baten	
Analyte	ug/l		ug/l		date / time		
Dissolved Solids	1790000		13300	1	11/17/2020 17:00	WG1577446	
Wet Chemistry by N	Method 9056A						
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Chloride	3760	B	1000	1	11/23/2020 22:14	<u>WG1579489</u>	
Fluoride	ND		150	1	11/23/2020 22:14	WG1579489	
Sulfate	1090000		250000	50	11/23/2020 22:31	WG1579489	

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Boron	4230		200	1	11/18/2020 22:09	WG1577479	
Calcium	315000		1000	1	11/18/2020 22:09	WG1577479	

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY L1284913-02,03,04,05

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Method Blank (MB)

(MB) R3593773-1 11/15/2	20 15:59			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

L1284900-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284900-01 11/15/2	0 15:59 • (DUP)	R3593773-3	11/15/20 15	:59		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	2300000	2270000	1	1.31		5

L1284913-05 Original Sample (OS) • Duplicate (DUP)

L1284913-05 Orig	inal Sample	(OS) • Du	plicate (DUP)			⁷ Gl
(OS) L1284913-05 11/15/2	20 15:59 • (DUP)	R3593773-4	11/15/20 15	:59			
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits	⁸ Al
Analyte	ug/l	ug/l		%		%	
Dissolved Solids	2730000	2540000	1	7.22	<u>13</u>	5	°Sc

Laboratory Control Sample (LCS)

(LCS) R3593773-2 11/15	5/20 15:59				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8030000	91.3	77.4-123	

DATE/TIME: 11/24/20 11:21

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Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY L1284913-01,06

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Method Blank (MB)

(MB) R3594767-1 11/17/	/20 17:00			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

L1284913-01 Original Sample (OS) • Duplicate (DUP)

L1284913-01 Origin	ial Sample	(OS) • Dup	olicate ([DUP)		
(OS) L1284913-01 11/17/20) 17:00 • (DUP) F	۲3594767-3 1°	.1/17/20 17:0	00		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	4280000	4290000	1	0.187		5

L1285117-02 Original Sample (OS) • Duplicate (DUP)

L1285117-02 Origi	nal Sample	(OS) • Dup	olicate (l	DUP)		
DS) L1285117-02 11/17/2	0 17:00 • (DUP) F	R3594767-4 1	1/17/20 17:0	00		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	558000	568000	1	1.78		5

Laboratory Control Sample (LCS)

(LCS) R3594767-2 11/	/17/20 17:00				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8530000	96.9	77.4-123	

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SDG: L1284913 DATE/TIME: 11/24/20 11:21

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Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY L1284913-01,02,03,04,05,06

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Method Blank (MB)

(MB) R3596742-1	11/23/20 10:35

	MB Result	MB Qualifier	MB MDL	MB RDL	
nalyte	ug/l		ug/l	ug/l	
hloride	400	J	379	1000	
luoride	U		64.0	150	
ulfate	U		594	5000	

L1284866-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284866-01 11/23/2	0 11:48 • (DUP) F	23596742-3	11/23/20 12	:05		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	5550	5570	1	0.437		15
Fluoride	160	161	1	0.374		15
Sulfate	18900	18900	1	0.0270		15

L1284959-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284959-01 11/23/20	0 22:48 • (DUP)	R3596742-7	11/23/20 2	23:05		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	1910	1910	1	0.0104		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3596742-2 11/23/	/20 10:52				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	39700	99.2	80.0-120	
Fluoride	8000	8140	102	80.0-120	
Sulfate	40000	39900	99.8	80.0-120	

ACCOUNT:
SCS Engineers - KS

PROJECT: 27213168.20

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QUALITY CONTROL SUMMARY

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L1284900-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1284900-05 11/23/2	20 15:11 • (MS) R	3596742-4 11/2	23/20 15:28				
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Chloride	50000	14200	65300	102	1	80.0-120	
Fluoride	5000	249	5340	102	1	80.0-120	
Sulfate	50000	593000	605000	24.9	1	80.0-120	EV

L1284913-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284913-02 11/23/2	0 18:51 • (MS) R	3596742-5 11/2	23/20 19:08 • (MSD) R359674	2-6 11/23/201	9:25						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	3770	56700	56900	106	106	1	80.0-120			0.357	15
Fluoride	5000	ND	4990	5020	97.3	97.8	1	80.0-120			0.492	15
Sulfate	50000	1230000	1230000	1230000	0.000	0.867	1	80.0-120	EV	EV	0.145	15

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1284913-01,02,03,04,05,06

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Method Diai					1,
(MB) R3594785-1	11/18/20 21:35				
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	ug/l		ug/l	ug/l	-
Boron	U		20.0	200	
Calcium	U		79.3	1000	3

Laboratory Control Sample (LCS)

Spike Amount LCS Result LCS Rec. Rec. Limits LCS Qualifier valyte ug/l % %		(LCS) R3594785-2 11/18/	20 21:37				
halyte ug/l ug/l % %			Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	n 1000 986 98.6 80.0-120	Analyte	ug/l	ug/l	%	%	

L1284913-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

OS) L1284913-02 11/18/20 21:40 • (MS) R3594785-4 11/18/20 21:46 • (MSD) R3594785-5 11/18/20 21:49											A	L		
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits		l
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	9	1
Boron	1000	4180	5070	5110	88.9	92.5	1	75.0-125			0.721	20	Sc	
Calcium	10000	313000	317000	317000	46.1	41.2	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	0.154	20	L	1

ACCOUNT:
SCS Engineers - KS

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GLOSSARY OF TERMS

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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
В	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.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

PROJECT: 27213168.20

SDG: L1284913 DATE/TIME: 11/24/20 11:21

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ACCREDITATIONS & LOCATIONS

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	Nebras
Alaska	17-026	
		Nevad
Arizona	AZ0612	New H
Arkansas	88-0469	New J
California	2932	New N
Colorado	TN00003	New Y
Connecticut	PH-0197	North
Florida	E87487	North
Georgia	NELAP	North
Georgia ¹	923	North
Idaho	TN00003	Ohio-
Illinois	200008	Oklaho
Indiana	C-TN-01	Orego
lowa	364	Penns
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South
Kentucky ²	16	South
Louisiana	AI30792	Tenne
Louisiana 1	LA180010	Texas
Maine	TN0002	Texas
Maryland	324	Utah
Massachusetts	M-TN003	Vermo
Michigan	9958	Virgini
Minnesota	047-999-395	Washi
Mississippi	TN00003	West V
Missouri	340	Wiscor
Montana	CERT0086	Wyom

lebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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11/24/20 11:21

SCS Engineers - KS			8575 W.	s Payable 110th Street		Pres Chk				nalvsis /	Contain		TVAUVE			Chain of Custor	Analytical*	
8575 W. 110th Street Overland Park, KS 66210			Overlan	Overland Park, KS 66210												National Canter for Testing 8 Innovation		
Report to: Jason Franks			Email To: jfranks@s	csengineers.com;ja	ay.martin@e	vergy.c	Pres									12065 Lebanon R Mount Juliet, TN Phone: 615-758-5	7122	
Project Description: Evergy - Montrose Generating Station		City/State Collected:	CLI	UTON M	Please Ci		E-No	5								Phone: 800-767-5 Fax: 615-758-585	859	
hone: 913-681-0030	Client Project 27213168.2			Lab Project # AQUAOPKS-I	MONTROS	E	125mlHDPE-NoPres	-HNO3								SDG #	1284413	
JASON K. FRANKS	Site/Facility ID	1#		P.O. #	- 54 			IHDPE	VoPres						Acctnum: AQUAOPKS			
$\mathcal{A} = \mathcal{R} \cdot \mathcal{A}$	Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only)						(, F, SO4)	6010 250mlHDPE-HNO3	SOMIHDPE-NoPres						Template: T135966 Prelogin: P806049 PM: 206 - Jeff Carr			
mmediately Packed on Ice N Y	Two Day	10 D	ay (Rad Only)	ST		No. of	Anions (Cld,	- 601	Somi						200	PM: 200 - Jen PB:	Carr	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Anion	B, Ca	TDS 2							Shipped Via: Remarks	Sample # (lab only)	
IW-601	GRAS	GW		11/10/20	MOS	3	X	X	X								- 01	
IW-602	Δ	GW	-	1 Anna 1	1310	3	X	x	X							124 -	- 02	
IW-603		GW	1		1355	3	X	x	x					1			- 93	
IW-604	1 1000	GW	-		1400	3	X	X	X						1		-04	
IW-605	and the second	GW	-		1445	3	x	x	X				1			B. A.	.07	
102 ^{MS/MSD}	and the second	GW	-		1330	33	5x	X	x								-02-05-06	
UPLICATE D	N	GW		V	1320	рз	Øx	x	x			3					- 06	
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5 - Soil AIR - Air F - Filter W - Groundwater B - Bioassay W - WasteWater	marks:			a da ana an A				1	1	pH Flow		Temp Other		Bot	2 Seal Pr 2 Signed/ ttles arr	le Receipt C esent/Intact Accurate: tive intact: tiles used:	Y N	
T-Other	UPS FedEx			Trackin			25	:06						voz	A Zero He	volume sent: If Applicate adspace:		
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telinquished by : (Signature)	Dat		Time		ed for lab by:	(Signate	re	2	D	Date	lat	Time:	20	Hol	d:		Condition: NCF / DK	



ANALYTICAL REPORT

November 23, 2020

SCS Engineers - KS

Sample Delivery Group: Samples Received: Project Number: Description: L1284919 11/12/2020 27213168.20 Evergy - Montrose Generating Station

Report To:

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

Тс Ss Cn Sr ʹQc Gl AI Sc

Entire Report Reviewed By:

Jubb land

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.

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1284919 DATE/TIME: 11/23/20 17:53

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Sc: Sample Chain of Custody	13	

Cp: Cover Page

SDG: L1284919 DATE/TIME: 11/23/20 17:53

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

				Collected date/time	Received date/time	
MW-506 L1284919-01 GW				11/10/20 13:25	11/12/20 09:0	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Gravimetric Analysis by Method 2540 C-2011	WG1576601	1	11/16/20 05:55	11/16/20 13:45	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1579485	1	11/22/20 20:56	11/22/20 20:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1579485	100	11/22/20 21:52	11/22/20 21:52	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1577480	1	11/18/20 04:51	11/18/20 20:10	CCE	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time

DUPLICATE L1284919-02 GW			Jason R. Franks	11/10/20 13:25	11/12/20 09:0	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Gravimetric Analysis by Method 2540 C-2011	WG1576601	1	11/16/20 05:55	11/16/20 13:45	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1579485	1	11/22/20 22:10	11/22/20 22:10	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1579485	100	11/22/20 22:28	11/22/20 22:28	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1577480	1	11/18/20 04:51	11/18/20 20:22	CCE	Mt. Juliet, TN

ACCOUNT: SCS Engineers - KS PROJECT: 27213168.20

SDG: L1284919

D 11/ PAGE: 3 of 13 Cp ²Tc ³Ss ⁴Cn ⁵Sr

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CASE NARRATIVE

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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.

Jubb land

Jeff Carr Project Manager

Τс Ss Cn Sr Qc GI AI Sc

PROJECT: 27213168.20

SDG: L1284919 DA 11/23 PAGE: 4 of 13

SAMPLE RESULTS - 01 L1284919

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Gravimetric Analysis by Method 2540 C-2011

							I'Cr
	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2620000	<u>J3</u>	20000	1	11/16/2020 13:45	WG1576601	Tc

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch	
Analyte	ug/l		ug/l		date / time		
Dissolved Solids	2620000	<u>13</u>	20000	1	11/16/2020 13:45	WG1576601	
Mat Chamiatry h							
wet Chemistry by	/ Method 9056A		PDI	Dilution	Analysis	Batch	
Analyte	/ Method 9056A Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
	Result			Dilution 1		Batch WG1579485	
Analyte	Result ug/l		ug/l	Dilution 1 1	date / time		

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	11/18/2020 20:10	WG1577480
Calcium	367000	\vee	1000	1	11/18/2020 20:10	WG1577480

SAMPLE RESULTS - 02 L1284919

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Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch	 Ср
Analyte	ug/l		ug/l		date / time		2
Dissolved Solids	2590000		20000	1	11/16/2020 13:45	WG1576601	^ˆ Тс

Wet Chemistry by Method 9056A

Wet Chemistry by Method 9056A								
	Result	Qualifier	RDL	Dilution	Analysis	Batch		
Analyte	ug/l		ug/l		date / time			4 Cn
Chloride	84700		1000	1	11/22/2020 22:10	<u>WG1579485</u>		
Fluoride	ND		150	1	11/22/2020 22:10	WG1579485		5
Sulfate	1760000		500000	100	11/22/2020 22:28	WG1579485		ँSr

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l		date / time	
Boron	ND		200	1	11/18/2020 20:22	WG1577480
Calcium	366000		1000	1	11/18/2020 20:22	WG1577480



SDG: L1284919

Gravimetric Analysis by Method 2540 C-2011

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3593772-1 11/1	6/20 13:45			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Dissolved Solids	U		2820	10000

L1284919-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1284919-01 11/	(16/20 13:45 • (DUP)	R3593772-3 1	1/16/20 13:4	45		
	Original Result	t DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Dissolved Solids	2620000	2800000	1	6.79	J3	5

Laboratory Control Sample (LCS)

(LCS) R3593772-2 11/	/16/20 13:45				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Dissolved Solids	8800000	8080000	91.8	77.4-123	

SDG: L1284919 DATE/TIME: 11/23/20 17:53

PAGE: 7 of 13 Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

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Method Blank (MB)

	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	
Chloride	U		379	1000	
Fluoride	U		64.0	150	
Sulfate	U		594	5000	
ounate	Ū		001		

L1284738-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1284738-06	11/22/20 15:06 • (E	OUP) R3596406-3	11/22/20 15:25
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	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	24800	24500	10	1.11		15
Fluoride	ND	ND	10	0.000		15
Sulfate	147000	146000	10	0.476		15

L1284753-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1284753-09 11/22/2	0 19:43 • (DUP)	R3596406-5	11/22/20 2	20:01		
	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	8850	8850	1	0.0554		15
Fluoride	203	203	1	0.0987		15
Sulfate	25700	25700	1	0.117		15

Laboratory Control Sample (LCS)

(LCS) R3596406-2 11/22	2/20 13:10				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	40000	99.9	80.0-120	
Fluoride	8000	8410	105	80.0-120	
Sulfate	40000	40600	102	80.0-120	

ACCOUNT:
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QUALITY CONTROL SUMMARY

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L1284744-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1284744-01 11/22/20	0 16:20 • (MS) R	3596406-4 11/	22/20 17:15				
	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	ug/l	ug/l	ug/l	%		%	
Chloride	50000	41000	91800	102	1	80.0-120	
Fluoride	5000	177	5310	103	1	80.0-120	
Sulfate	50000	ND	56200	104	1	80.0-120	

L1284919-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284919-01 11/22/2	20 20:56 • (MS) F	23596406-6 11	/22/20 21:15 •	(MSD) R35964	06-7 11/22/20	21:33						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Chloride	50000	84500	134000	133000	98.2	97.8	1	80.0-120	E	E	0.144	15
Fluoride	5000	ND	4960	4950	97.2	97.0	1	80.0-120			0.180	15
Sulfate	50000	1880000	1870000	1870000	0.000	0.000	1	80.0-120	ΕV	EV	0.0812	15

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Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY L1284919-01,02

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Method Blank (MB)

Method Blat	ik (IVIB)				
(MB) R3594811-1	11/18/20 20:04				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	ug/l		ug/l	ug/l	
Boron	U		20.0	200	
Calcium	U		79.3	1000	

Laboratory Control Sample (LCS)

Spike Amount LCS Result LCS Rec. Rec. Limits LCS Qualifier Analyte ug/l vg/l %		(LCS) R3594811-2 11/18/2	0 20:07				
Analyte ug/l ug/l % %			Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	on 1000 989 98.9 80.0-120	Analyte	ug/l	ug/l	%	%	

L1284919-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

L1284919-01 Oligii	iai Sample	(03) • Mati	ix Spike (ii		Spike Dup) (U						
(OS) L1284919-01 11/18/20	0 20:10 • (MS) R	3594811-4 11/18	s/20 20:16 • (N	1SD) R3594811-	5 11/18/20 20:1	9							
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%	9
Boron	1000	ND	1070	1080	98.5	99.7	1	75.0-125			1.14	20	Sc
Calcium	10000	367000	366000	369000	0.000	18.6	1	75.0-125	$\underline{\vee}$	$\underline{\vee}$	0.832	20	

ACCOUNT:
SCS Engineers - KS

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GLOSSARY OF TERMS

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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).
J3	The associated batch QC was outside the established quality control range for precision.

V The sample concentration is too high to evaluate accurate spike recoveries.

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ACCREDITATIONS & LOCATIONS

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

Alaska17-026NevadiArizonaAZ0612New HArkansas88-0469New JCalifornia2932New MColoradoTN00003New YConnecticutPH-0197North CFloridaE87487North CGeorgiaNELAPNorth CGeorgia ¹ 923North CIllinois200008OklahoIndianaC-TN-01OregorIowa364PennsyKansasE-10277RhodeKentucky ¹⁶ 90010South CLouisianaAl30792TennesLouisiana324UtahMaryland324UtahMinnesota047-999-395WashinMinsissispipiTN0003West VMississippiTN0003West VMissouri340Wiscouri	Alabama	40660	Nebras
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Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

SCS Engineers - KS

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.



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SCS Engineers - KS				575 W. 110th Street			Pres Chk											Pace	Analytical*
3575 W. 110th Street Overland Park, KS 66210			Overland	d Park, KS	66210)												/ Netional Ge	nter for Testing & Innovatile
ason Franks			Email To: jfranks@so	sengineers.	com;jay	.martin@ev	ergy.c	Pres.	1									12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-585	· ***
Project Description: Evergy - Montrose Generating Station		City/State Collected:	(LINT	TON V	nd	Please Cir PT MT CI		E-No	V									Phone: 800-767-585 Fax: 615-758-5859	
Phone: 913-681-0030	Client Project 27213168.2			Lab Projec		IONTROSE		125mlHDPE-NoPres	6010 250mIHDPE-HN03		1. 1945 -							SDG # CO2	5
JASON K. FRANKS	Site/Facility ID)#		P.O. #			1		HDPE	oPres								Acctnum: AQL	IAOPKS
Collected by (signature):	200 EXX 23 CARD	ab MUST Be		Quote #				F, SO4)	250m	DPE-N								Template: T16 Prelogin: P80	
Immediately Packed on Ice N Y	Next Da Two Day Three D	y5 Day y10 Da	(Rad Only) y (Rad Only)		Results	Needed	No.	Anions (Cld,	- 6010	250miHDPE-NoPres					Bat Bartin		12	PM: 206 - Jeff C PB:	
Sample ID	Comp/Grab	Matrix *	Depth	. Date		Time	Cntrs	Anion	B, Ca	TDS 2							e.	Shipped Via: Remarks	Sample # (lab only)
MW-506	GRAB	GW	-	11/10	120	1325	3	X	x	x							- 28		- 01
MW-506 MS/MSD	GRAG	GW	-	11/10	20	1325	3	X	X	X					-A. 11.2				- 91
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SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater												pH Temp Flow Other				Sample Receipt Checklist COC Seal Present/Intact:Y COC Signed/Accurate:Y Bottles arrive intact:Y Correct bottles used:Y			Y N Y N Y N
DW - Drinking Water S OT - Other	amples returned UPS FedEx				Fracking											Suffic VOA Ze	ient ro He	volume sent: <u>If Applicabl</u> eadspace: on Correct/Che	eN eYN
Reliaquished by : (Stanature)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nte:	Time	56	Receive	d by (Signatu	ire)					k Recei		s / No ICL / Mei BR	oH			<0.5 mR/hr:	TA N
Relinquished by : (Signature)		1/11/20	Time	60	Ked	d by: (Signatu EX					remp: 7	17.	C	es Receiv		If preset	vatio	n required by Log	n: Date/Time
Relinquished by : (Signature)	Da	ate:	Time	e /	Received	d for lab by: (Signati	ure			Date:	2/20	Time	ř: 00		Hold:			Condition: NCF / OF

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 - CCR Landfill Fall 2019 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill 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. Two rounds of verification sampling were conducted for certain constituents on January 14, 2020 and February 3, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

Constituent/Monitoring Well	Constituent/Monitoring Well *UPL		1st Verification January 14, 2020	2nd Verification February 3, 2020	
Chloride					
MW-605	55.57	59.1	60.5	59.8	

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified a SSI above the background prediction limit for chloride in monitoring well MW-605.

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 result, 1st verification re-sample result (when applicable), 2nd verification re-sample result (when applicable), extra sample results for pH because pH is collected as part of the sampling

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill March 10, 2020 Page 2 of 2

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.

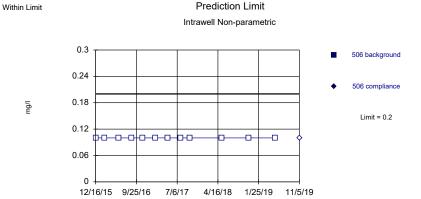
Revision Number	Revision Date	Attachment Revised	Summary of Revisions

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill March 10, 2020

ATTACHMENT 1

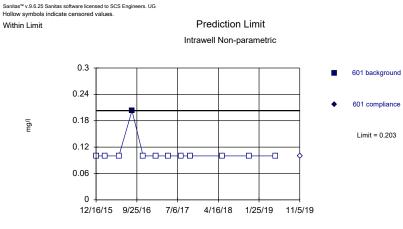
Sanitas[™] Output

Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values.



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.

Prediction Limit



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

> Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas[™] v.9.6.25 Sanitas software licensed to SCS Engineers. UG

Within Limit

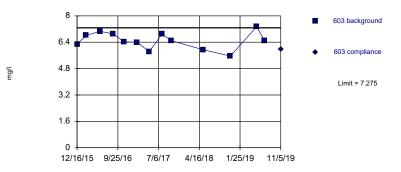
Background Data Summary: Mean=4.707, Std. Dev.=0.2995, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132. Report alpha = 0.00188.

Sanitas[™] v.9.6.25 Sanitas software licensed to SCS Engineers. UG



Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.496, Std. Dev.=0.5141, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9744, 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 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

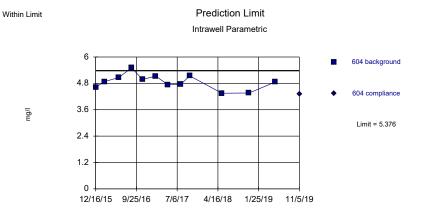
Prediction Limit

Constituent: Boron Analysis Run 2/21/2020 3:41 PM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

			World O	se denerating otati	OILOWE OILENT. OC	o Engineera Dat	a. Wohlose		
	506	506	601	601	602	602	603	603	
12/16/2015	<0.2		<0.2		5.08		6.28		
2/16/2016	<0.2		<0.2		5.04		6.81		
5/23/2016	<0.2		<0.2		5.17		7.06		
8/22/2016	<0.2		0.203		4.62		6.91		
11/7/2016					4.84		6.43		
11/8/2016	<0.2		<0.2						
2/7/2017	<0.2		<0.2		4.62		6.39		
5/1/2017	<0.2								
5/2/2017			<0.2		4.35		5.83		
7/31/2017	<0.2		<0.2		4.63		6.9		
10/2/2017	<0.2		<0.2		4.94		6.5		
5/14/2018	<0.2		<0.2		4.39		5.94		
11/19/2018	<0.2		<0.2		4.32		5.56		
5/21/2019	<0.2		<0.2		4.48		7.35		
7/15/2019							6.49		
11/5/2019		<0.2		<0.2		4.16		5.96	

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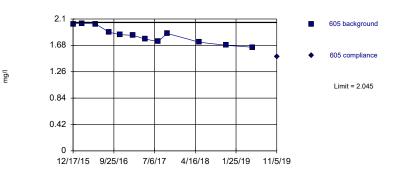
Background Data Summary: Mean=4.864, Std. Dev.=0.3316, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.011, calculated = 0.9664, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.



Within Limit

Prediction Limit

Intrawell Parametric



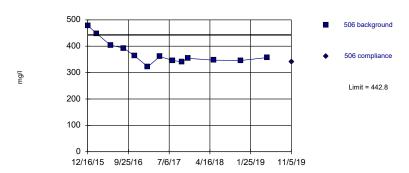
Background Data Summary: Mean=1.842, Std. Dev.=0.132, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9267, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Boron Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas[™] v.9.6.25 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit Intrawell Parametric



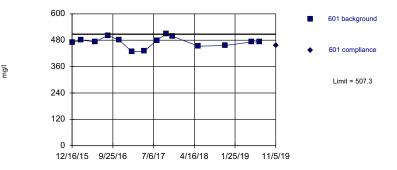
Background Data Summary: Mean=373.9, Std. Dev.=45.49, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @dalpha = 0.01, calculated = 0.8335, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG



Prediction Limit





Background Data Summary: Mean=471.6, Std. Dev.=24.04, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

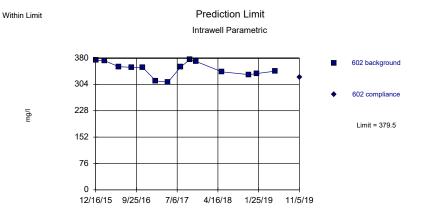
Prediction Limit

Constituent: Boron, Calcium Analysis Run 2/21/2020 3:41 PM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

						Duta. Mont	1000	
	604	604	605	605	506	506	601	601
12/16/2015	4.62				479		469	
12/17/2015			2.02					
2/16/2016	4.88		2.03		448		481	
5/23/2016	5.06		2.02		404		473	
8/22/2016	5.5		1.89		393		502	
11/7/2016	4.98		1.85					
11/8/2016					363		481	
2/7/2017	5.13		1.84		322		427	
5/1/2017					361			
5/2/2017	4.74		1.78				430	
7/31/2017	4.75		1.74		346		480	
10/2/2017	5.14		1.87		341		508	
11/15/2017					354		498	
5/14/2018	4.35		1.73		347		453	
11/19/2018	4.36		1.68		346		456	
5/21/2019	4.86		1.65		357		472	
7/15/2019							472	
11/5/2019		4.3		1.5		341		457

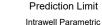
Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG

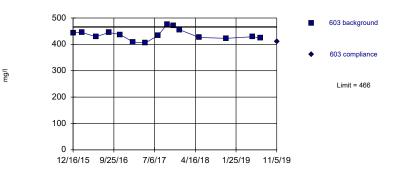


Background Data Summary: Mean=348.4, Std. Dev.=20.89, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Within Limit

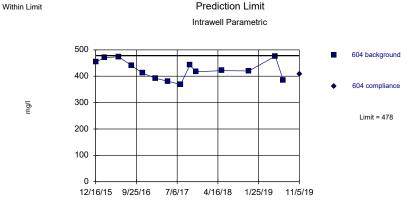




Background Data Summary: Mean=436.8, Std. Dev.=20.01, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Calcium Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG

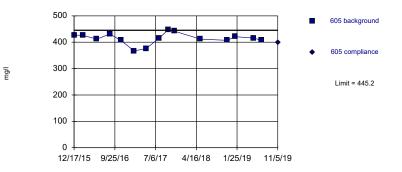


Background Data Summary: Mean=425.3, Std. Dev.=35.45, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.





Prediction Limit

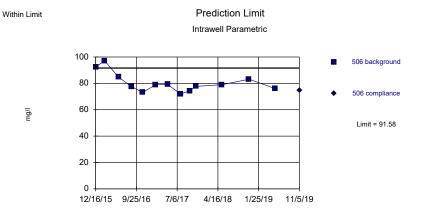


Background Data Summary: Mean=414.2, Std. Dev.=21.27, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Calcium Analysis Run 2/21/2020 3:41 PM View: LF CCR III

	602	602	603	603	604	604	605	605				
12/16/2015	373		444		454							
12/17/2015							427					
2/16/2016	372		445		470		426					
5/23/2016	355		429		474		412					
8/22/2016	353		445		440		431					
11/7/2016	353		437		412		407					
2/7/2017	314		409		392		367					
5/2/2017	310		405		381		376					
7/31/2017	354		434		369		415					
10/2/2017	375		476		442		447					
11/15/2017	370		471		417		442					
12/29/2017			455									
5/14/2018	340		426		421		412					
11/19/2018	332		423		420		407					
1/10/2019	335						421					
5/21/2019	342		429		476		416					
7/15/2019			424		386		407					
11/5/2019		325		410		407		399				

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Background Data Summary: Mean=80.4, Std. Dev.=7.382, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8755, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

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Within Limit

l/gr

Prediction Limit



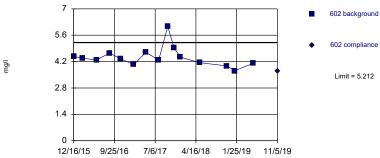
Background Data Summary: Mean=51.97, Std. Dev.=3.1, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limit

Prediction Limit Intrawell Parametric



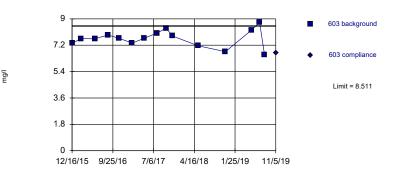
Background Data Summary (based on square root transformation): Mean=2.102, Std. Dev.=0.1238, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8603, critical = 0.855. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Prediction Limit

Intrawell Parametric

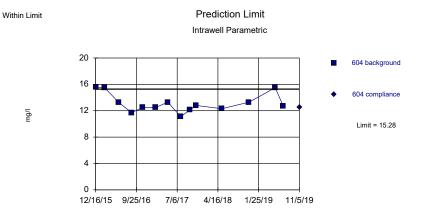


Background Data Summary: Mean=7.659, Std. Dev.=0.5838, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9807, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 2/21/2020 3:41 PM View: LF CCR III

			Montrose Ger	herating Station UVVL	. Client: SCS Eng	ineers Data: Mont	rose	
	506	506	601	601	602	602	603	603
12/16/2015	92.4		52.5		4.48		7.33	
2/16/2016	97.2		53		4.38		7.65	
5/23/2016	84.7		50.6		4.29		7.64	
8/22/2016	77.5		45.5		4.65		7.9	
11/7/2016					4.35		7.67	
11/8/2016	73.1		47.5					
2/7/2017	79		49		4.04		7.35	
5/1/2017	79.2							
5/2/2017			51.1		4.69		7.67	
7/31/2017	71.9		52.7		4.28		8.03	
10/2/2017	74.4		52.4		6.06		8.37	
11/15/2017	77.7		54.2		4.93		7.83	
12/29/2017					4.44			
5/14/2018	79		55		4.14		7.16	
11/19/2018	83.1		49.6		3.97		6.76	
1/10/2019					3.71			
5/21/2019	76		55.5		4.11		8.24	
7/15/2019			56.5				8.75	
8/19/2019			54.5				6.54	
11/5/2019		74.5		52.8		3.69		6.66

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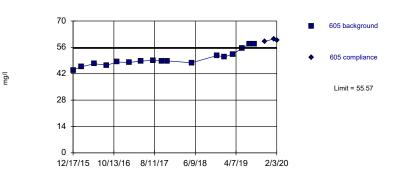


Background Data Summary: Mean=13.16, Std. Dev.=1.425, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8723, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.





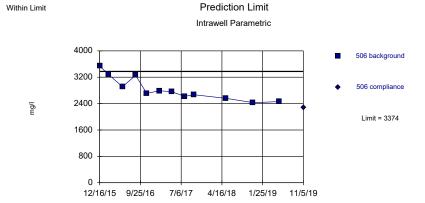




Background Data Summary: Mean=49.93, Std. Dev.=3.99, n=17. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Chloride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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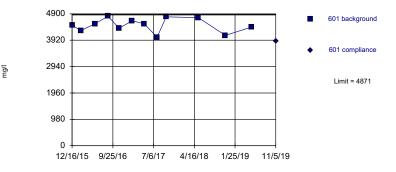


Background Data Summary: Mean=2833, Std. Dev.=351.4, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8961, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG



Prediction Limit



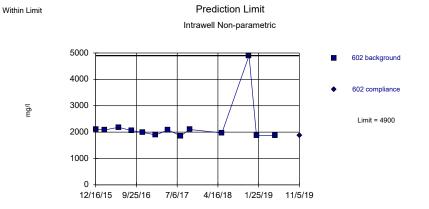
Background Data Summary: Mean=4477, Std. Dev.=255.5, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Chloride, Dissolved Solids Analysis Run 2/21/2020 3:41 PM View: LF CCR III

	604	604	605	605	506	506	601	601					
12/16/2015	15.6				3540		4470						
12/17/2015			43.9										
2/16/2016	15.5		45.7		3280		4280						
5/23/2016	13.3		47.3		2910		4530						
8/22/2016	11.7		46.5		3260		4810						
11/7/2016	12.5		48.2										
11/8/2016					2710		4370						
2/7/2017	12.5		48		2790		4640						
5/1/2017					2760								
5/2/2017	13.3		48.7				4530						
7/31/2017	11.1		49.1		2620		4030						
10/2/2017	12.1		48.7		2670		4790						
11/15/2017	12.8		48.8										
5/14/2018	12.3		47.8		2560		4760						
11/19/2018	13.3		51.7		2430		4100						
1/10/2019			50.9										
3/13/2019			52.4										
5/21/2019	15.5		55.4		2460		4410						
7/15/2019	12.7		57.8										
8/19/2019			57.9										
11/5/2019		12.5		59.1		2280		3880					
1/14/2020				60.5 1st Ve	erification								
2/3/2020				59.8 2nd V	erification								

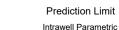
Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG

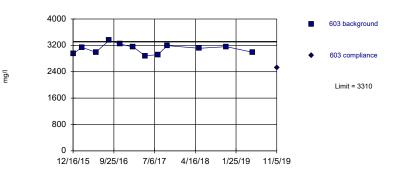


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. Well-constituent pair annual alpha = 0.003769. Individual comparison alpha = 0.001886 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Dissolved Solids Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG

Within Limit





Background Data Summary: Mean=3088, Std. Dev.=143.6, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9528, 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 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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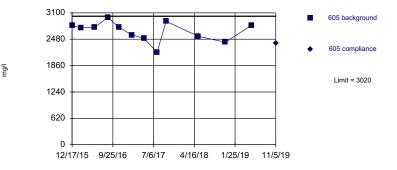
Within Limit Prediction Limit Intrawell Parametric 604 background 604 compliance Limit = 3150

Background Data Summary: Mean=2648, Std. Dev.=331.5, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9778, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Within Limit

Prediction Limit

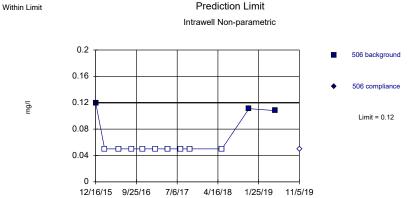


Background Data Summary: Mean=2665, Std. Dev.=230.2, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Dissolved Solids Analysis Run 2/21/2020 3:41 PM View: LF CCR III

	602	602	603	603	604	604	605	605				
12/16/2015	2100		2940		2820							
12/17/2015							2800					
2/16/2016	2080		3140		2690		2750					
5/23/2016	2180		2990		3010		2760					
8/22/2016	2060		3350		2890		2990					
11/7/2016	1990		3240		2270		2760					
2/7/2017	1890		3150		2670		2580					
5/2/2017	2080		2880		2350		2500					
7/31/2017	1860		2920		2070		2170					
10/2/2017	2100		3190		2570		2900					
5/14/2018	1970		3110		2820		2550					
11/19/2018	4900		3160		2320		2410					
1/10/2019	1870											
5/21/2019	1870		2990		3270		2810					
7/15/2019					2680							
11/5/2019		1880		2530		2340		2380				

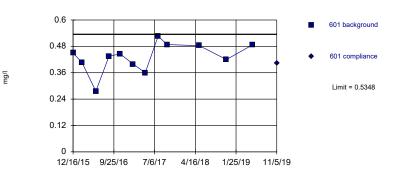
Sanitas $^{\mbox{\tiny W}}$ v.9.6.25 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values.



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized. Sanitas™ v.9.6.25 Sanitas software licensed to SCS Engineers. UG

Within Limit

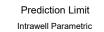
Prediction Limit

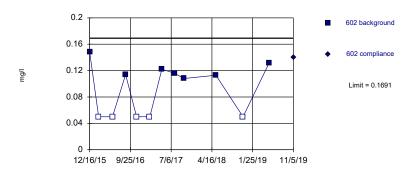


Background Data Summary: Mean=0.4313, Std. Dev.=0.06712, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas^{ter} v.9.6.25 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values. Within Limit

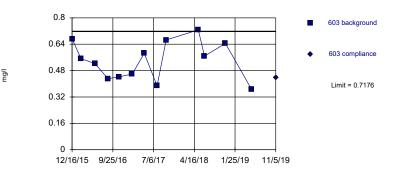




Background Data Summary (after Aitchison's Adjustment): Mean=0.07108, Std. Dev.=0.06358, n=12, 41.67% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8063, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188. Sanitas[™] v.9.6.25 Sanitas software licensed to SCS Engineers. UG



Prediction Limit Intrawell Parametric

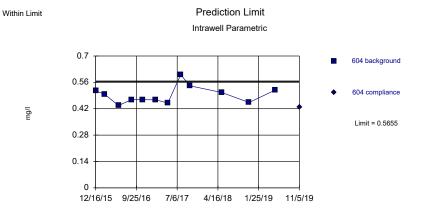


Background Data Summary: Mean=0.5403, Std. Dev.=0.1171, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.00188.

Constituent: Fluoride Analysis Run 2/21/2020 3:41 PM View: LF CCR III

Montrose denerating station over Crient, Soo Engineers Data, Montrose											
	506	506	601	601	602	602	603	603			
12/16/2015	0.12		0.45		0.148		0.673				
2/16/2016	<0.1		0.406		<0.1		0.552				
5/23/2016	<0.1		0.276		<0.1		0.523				
8/22/2016	<0.1		0.435		0.114		0.431				
11/7/2016					<0.1		0.442				
11/8/2016	<0.1		0.446								
2/7/2017	<0.1		0.399		<0.1		0.459				
5/1/2017	<0.1										
5/2/2017			0.36		0.122		0.585				
7/31/2017	<0.1		0.526		0.116		0.388				
10/2/2017	<0.1		0.488		0.108		0.666				
5/14/2018	<0.1		0.483		0.113		0.727				
6/26/2018							0.568				
11/19/2018	0.111		0.42		<0.1		0.645				
5/21/2019	0.108		0.487		0.132		0.365				
11/5/2019		<0.1		0.402		0.14		0.436			

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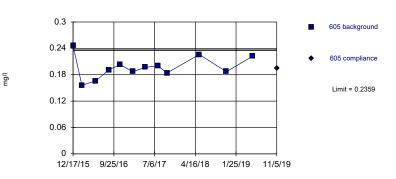


Background Data Summary: Mean=0.4936, Std. Dev.=0.04663, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.00188.

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Prediction Limit



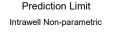
Background Data Summary: Mean=0.1971, Std. Dev.=0.02515, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9677, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

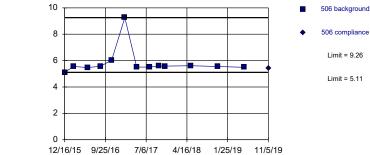
Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Fluoride Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limits

S.U.



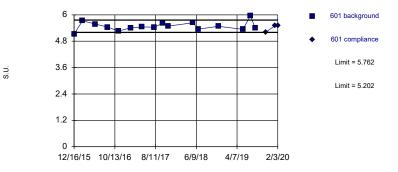


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 13 background values. Well-constituent pair annual alpha = 0.007539. Individual comparison alpha = 0.003773 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

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Prediction Limit Intrawell Parametric

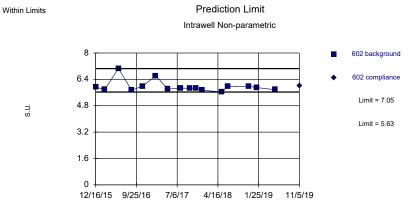


Background Data Summary: Mean=5.482, Std. Dev.=0.1956, n=16. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9558, critical = 0.844. Kappa = 1.43 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

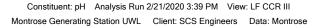
Constituent: Fluoride, pH Analysis Run 2/21/2020 3:41 PM View: LF CCR III

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose											
1	604	604	605	605	506	506	601	601			
12/16/2015	0.515				5.11		5.12				
12/17/2015			0.246								
2/16/2016	0.497		0.156		5.56		5.73				
5/23/2016	0.437		0.166		5.47		5.58				
8/22/2016	0.468		0.191		5.57		5.44				
11/7/2016	0.468		0.203								
11/8/2016					6.04		5.26				
2/7/2017	0.467		0.187		9.26		5.41				
5/1/2017					5.51						
5/2/2017	0.45		0.197				5.45				
7/31/2017	0.601		0.2		5.51		5.44				
10/2/2017	0.542		0.184		5.59		5.61				
11/15/2017					5.58		5.49				
5/14/2018	0.506		0.226		5.61		5.64				
6/26/2018							5.35				
11/19/2018	0.453		0.187		5.55		5.48				
5/21/2019	0.519		0.222		5.49		5.34				
7/15/2019							5.96				
8/19/2019							5.41				
11/5/2019		0.428		0.195		5.44		5.2			
1/14/2020								5.51 1st Verification			

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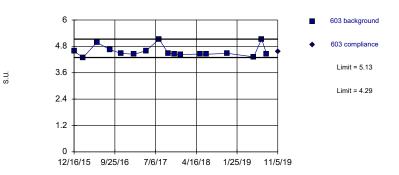
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.004102. Individual comparison alpha = 0.002052 (1 of 3). Insufficient data to test for seasonalized.



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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 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: pH Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limits

S.U.

Prediction Limit Intrawell Parametric

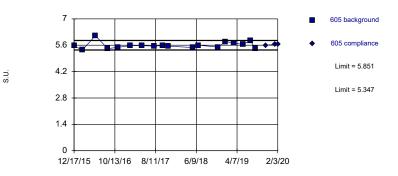


Background Data Summary: Mean=5.848, Std. Dev.=0.2249, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8937, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Prediction Limit

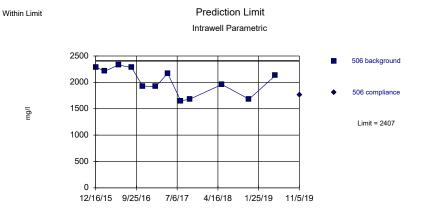


Background Data Summary: Mean=5.599, Std. Dev.=0.1804, n=18. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.858. Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 2/21/2020 3:41 PM View: LF CCR III

			Montro	se Generating Statio	on UWL Client: SC	S Engineers Dat	a: Montrose		
	602	602	603	603	604	604	605	605	
12/16/2015	5.93		4.58		5.79				
12/17/2015							5.57		
2/16/2016	5.78		4.29		5.51		5.34		
5/23/2016	7.05		4.98		6.3		6.11		
8/22/2016	5.74		4.65		5.67		5.42		
11/7/2016	5.99		4.48		6.04		5.49		
2/7/2017	6.62		4.44		6.1		5.58		
5/2/2017	5.81		4.6		5.72		5.58		
7/31/2017	5.87		5.13		5.82		5.55		
10/2/2017	5.86		4.48		5.72		5.58		
11/15/2017	5.87		4.44		5.73		5.55		
12/29/2017	5.74		4.43						
5/14/2018	5.63		4.45		5.7		5.48		
6/26/2018	5.98		4.44				5.6		
11/19/2018	5.98		4.48		5.75		5.5		
1/10/2019	5.9						5.79		
3/13/2019							5.73		
5/21/2019	5.77		4.32		5.82		5.64		
7/15/2019			5.13		6.2		5.85		
8/19/2019			4.46				5.42		
11/5/2019		6		4.56		5.89		5.59	
1/14/2020								5.66 Extra Sample	
2/3/2020								5.64 Extra Sample	

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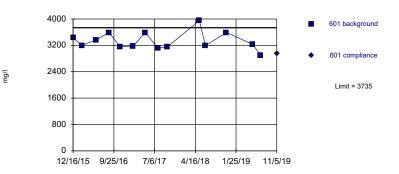


Background Data Summary: Mean=2019, Std. Dev.=251.7, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8935, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.



Within Limit

Prediction Limit



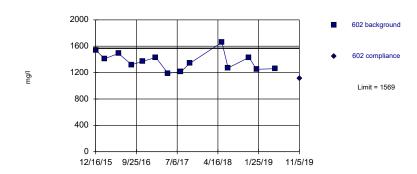
Background Data Summary: Mean=3331, Std. Dev.=272, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9196, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Sulfate Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limit

Prediction Limit Intrawell Parametric

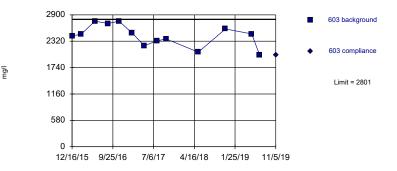


Background Data Summary: Mean=1369, Std. Dev.=134.2, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

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Within Limit

Prediction Limit

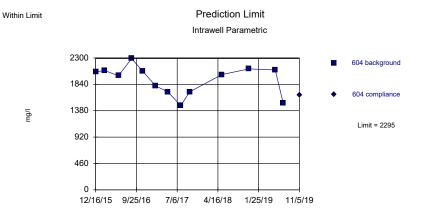


Background Data Summary: Mean=2441, Std. Dev.=237.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9483, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 2/21/2020 3:41 PM View: LF CCR III

1	506	506	601	601	602	602	603	603			
12/16/2015	2290		3430		1540		2440				
2/16/2016	2210		3200		1410		2470				
5/23/2016	2330		3360		1490		2760				
8/22/2016	2280		3590		1320		2710				
11/7/2016					1370		2760				
11/8/2016	1930		3160								
2/7/2017	1920		3180		1430		2500				
5/1/2017	2170										
5/2/2017			3590		1190		2220				
7/31/2017	1650		3110		1210		2330				
10/2/2017	1680		3150		1340		2370				
5/14/2018	1960		3950		1660		2080				
6/26/2018			3190		1270						
11/19/2018	1680		3590		1430		2590				
1/10/2019					1250						
5/21/2019	2130		3230		1260		2480				
7/15/2019			2900				2020				
11/5/2019		1760		2950		1110		2010			

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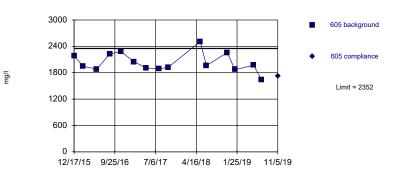


Background Data Summary: Mean=1916, Std. Dev.=250.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Within Limit

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=2033, Std. Dev.=218.7, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.835. Kappa = 1.458 (c=7), w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Sulfate Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Sulfate Analysis Run 2/21/2020 3:39 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Sulfate Analysis Run 2/21/2020 3:41 PM View: LF CCR III

	604	604	605	605
12/16/2015	2060			
12/17/2015			2180	
2/16/2016	2080		1950	
5/23/2016	1990		1880	
8/22/2016	2290		2230	
11/7/2016	2070		2280	
2/7/2017	1810		2050	
5/2/2017	1710		1910	
7/31/2017	1470		1890	
10/2/2017	1710		1920	
5/14/2018	2010		2510	
6/26/2018			1960	
11/19/2018	2110		2260	
1/10/2019			1870	
5/21/2019	2090		1970	
7/15/2019	1510		1640	
11/5/2019		1650		1730

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 2/21/2020, 3:41 PM Bg N <u>%NDs</u> Constituent Well Upper Lim. Lower Lim. Date Transform Alpha Method Observ. <u>Sig.</u> Boron (mg/l) 506 0.2 n/a 11/5/2019 0.1ND No 12 100 n/a 0.002173 NP Intra (NDs) 1 of 3 601 0.203 11/5/2019 0.1ND No 12 91.67 0.002173 NP Intra (NDs) 1 of 3 Boron (mg/l) n/a n/a 602 4.16 12 Boron (mg/l) 5.168 11/5/2019 No 0 No 0.00188 Param Intra 1 of 3 n/a 603 Boron (mg/l) 7.275 n/a 11/5/2019 5.96 No 13 0 No 0.00188 Param Intra 1 of 3 604 5.376 Param Intra 1 of 3 Boron (mg/l) 11/5/2019 4.3 12 0 No 0.00188 n/a No Boron (mg/l) 605 2.045 11/5/2019 1.5 No 12 0 No 0.00188 Param Intra 1 of 3 n/a 506 442.8 11/5/2019 341 13 0 0.00188 Param Intra 1 of 3 Calcium (mg/l) No No n/a 601 507.3 457 0 Calcium (mg/l) n/a 11/5/2019 No 14 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 602 379.5 n/a 11/5/2019 325 No 14 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 603 466 n/a 11/5/2019 410 No 15 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 604 478 n/a 11/5/2019 407 No 14 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 605 445.2 n/a 11/5/2019 399 No 15 0 No 0.00188 Param Intra 1 of 3 Chloride (mg/l) 506 91.58 n/a 11/5/2019 74.5 No 13 0 No 0.00188 Param Intra 1 of 3 56.49 Chloride (mg/l) 601 n/a 11/5/2019 52.8 No 15 0 No 0.00188 Param Intra 1 of 3 Chloride (mg/l) 602 5.212 11/5/2019 3.69 15 0 0.00188 n/a No sqrt(x) Param Intra 1 of 3 Chloride (mg/l) 603 8.511 11/5/2019 6.66 15 0 0.00188 Param Intra 1 of 3 n/a No No Chloride (mg/l) 604 12.5 14 0 15.28 n/a 11/5/2019 No No 0.00188 Param Intra 1 of 3 Chloride (mg/l) 605 55.57 2/3/2020 59.8 Yes 17 0 No 0.00188 Param Intra 1 of 3 n/a 506 12 Dissolved Solids (mg/l) 3374 n/a 11/5/2019 2280 No 0 No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 601 4871 3880 12 0 n/a 11/5/2019 No No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 602 4900 11/5/2019 13 0 0.001886 NP Intra (normality) ... n/a 1880 No n/a Dissolved Solids (mg/l) 603 3310 11/5/2019 2530 No 12 0 No 0.00188 Param Intra 1 of 3 n/a Dissolved Solids (mg/l) 604 3150 n/a 11/5/2019 2340 No 13 0 No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 605 3020 n/a 11/5/2019 2380 No 12 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 506 0.12 11/5/2019 0.05ND 12 75 0.002173 NP Intra (NDs) 1 of 3 n/a No n/a Fluoride (mg/l) 601 0.5348 n/a 11/5/2019 0.402 No 12 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 602 0.1691 n/a 11/5/2019 0.14 No 12 41.67 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 603 0.7176 n/a 11/5/2019 0.436 No 13 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 604 0.5655 n/a 11/5/2019 0.428 No 12 0 No 0.00188 Param Intra 1 of 3 605 12 Fluoride (mg/l) 0.2359 n/a 11/5/2019 0.195 No 0 No 0.00188 Param Intra 1 of 3 506 5.44 13 0 NP Intra (normality) ... pH (S.U.) 9.26 5.11 11/5/2019 No n/a 0.003773 pH (S.U.) 601 5.762 5.202 1/14/2020 5.51 16 0 No 0.000... Param Intra 1 of 3 No pH (S.U.) 602 7.05 5.63 11/5/2019 6 No 16 0 n/a 0.002052 NP Intra (normality) ... 603 5.13 4.29 11/5/2019 4.56 No 17 0 0.00182 NP Intra (normality) ... pH (S.U.) n/a pH (S.U.) 604 6.182 5.514 11/5/2019 5.89 14 0 No 0.000... Param Intra 1 of 3 No pH (S.U.) 605 5.851 5.347 2/3/2020 5.64 No 18 0 No 0.000... Param Intra 1 of 3 506 0 Sulfate (mg/l) 2407 n/a 11/5/2019 1760 No 12 No 0.00188 Param Intra 1 of 3 Sulfate (mg/l) 601 3735 n/a 11/5/2019 2950 No 14 0 No 0.00188 Param Intra 1 of 3 Sulfate (mg/l) 602 1569 11/5/2019 1110 0 0.00188 n/a No 14 No Param Intra 1 of 3 603 0 Sulfate (mg/l) 2801 11/5/2019 2010 No 13 0.00188 Param Intra 1 of 3 n/a No 604 Sulfate (mg/l) 2295 n/a 11/5/2019 1650 No 13 0 No 0.00188 Param Intra 1 of 3 Sulfate (mg/l) 605 2352 11/5/2019 1730 15 0 0.00188 Param Intra 1 of 3 n/a No No

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill March 10, 2020

ATTACHMENT 2

Sanitas[™] Configuration Settings

Data	Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests
Exclud	le data flag	s: i							
Data	Reading O	ptions							
🔘 In	ndividual Ob	oservations							
\bigcirc M	lean of Eac	:h:	O Month						
\bigcirc M	ledian of Ea	ach:	Seasor	n					
Setup	Seasons	ace Handling. Process Resa							

Data Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests		
Use Modified Alpha										
🗹 Test Residua	als For Normalit	ty (Parametric f	test only) usin	g Shapiro-Wilk/Fr	ancia 🗸 🗸	at Alpha	= 0.01	\sim		
Continue	Parametric if (Unable to Norr	nalize							
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 > 75 Include 95. % 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.										

Data	Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests		
⊡ Use		netric Test wh	apiro-Wilk/Fra nen Non-Dete	cts Percent > 5	at Alpha = 0.01	Never Transform Use Specific Transformation:					
_			Use Aitchise	etects Percent > on's v w	15 hen NDs % >	Natural Log					
Use	Poisson Pr	ediction Limit	when Non-De	etects Percent >	90		Plot Transfo	ormed Value	es		
If If If A Facility Statist Constri Down Sampli	Seasonality Seasonality Iways (Whe Iways Use γ α ical Evalua tuents Anal gradient (Co ing Plan	en Sufficient [Non-Parametr tions per Year lyzed: ompliance) W	Or Insufficient Data) O ic r: ells:	to Test Never	Plot Ba Override St Override D Automa 2-Taileo Show D Non-Paramo	Background Tr ckground Data andard Deviati F:(tically Remove d Test Mode Deselected Dat etric Limit =	a ion: Ovenide Ka Backgroun Backgroun Lighter Highest Bac	ppa: nd Outliers kground Va			
Comp	of 1	ividual Obsen) 1 of 2 (ified California	1 of 3	 ✓ 1 of 4 	 Highest Most R 	etric Limit wher t/Second High lecent PQL if a lecent Backgro	est Backgro vailable, or	ound Value MDL			

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 $\alpha = 0.05 \lor$ or if n > 22 \lor Rosner's at $\alpha = 0.01 \lor$ Use EPA Screening to establish Suspected Outliers											
O Tukey's Outlier Screening, with IQR Multiplier = 3.0 Use Ladder of Powers to achieve Best W Stat											
Test For Normality using Shapiro-Wilk/Francia \checkmark at Alpha = 0.1 \checkmark											
Stop if Non-Normal											
Continue with Parametric Test if Non-Normal											
○ Tukey's if Non-Normal, with IQR Multiplier = 3.0											
No Outlier If Less Than 3.0 Times Median											
Apply Rules found in Ohio Guidance Document 0715											
Combine Background Wells on the Outlier Report											
Piper, Stiff Diagram											
Combine Wells											
Combine Dates Label Axes											
Use Default Constituent Names Note Cation-Anion Balance (Piper only)											
O Use Constituent Definition File Edit											

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 - CCR Landfill Spring 2020 Semiannual Detection Monitoring 40 CFR 257.94

Statistical analysis of monitoring data from the groundwater monitoring system for the CCR Landfill 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. Two rounds of verification sampling were conducted for certain constituents on July 14, 2020 and August 26, 2020.

The completed statistical evaluation identified one Appendix III constituent above the prediction limit established for monitoring well MW-605.

Constituent/Monitoring Well	*UPL	Observation May 21, 2020	1st Verification July 14, 2020	2nd Verification August 26, 2020	
Chloride					
MW-605	55.57	60.2	62.1	61.6	

*UPL – Upper Prediction Limit

Determination: A statistical evaluation was completed for all Appendix III detection monitoring constituents in accordance with the certified statistical method. The statistical evaluation identified a SSI above the background prediction limit for chloride in monitoring well MW-605.

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, 1st verification re-sample results (when applicable), 2nd verification re-sample results (when applicable), extra sample results for pH because pH is collected as part of the

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill September 28, 2020 Page 2 of 2

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.

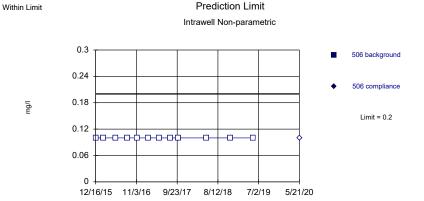
Revision Revision Number Date		Attachment Revised	Summary of Revisions

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill September 28, 2020

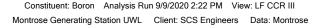
ATTACHMENT 1

Sanitas[™] Output

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values.



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.

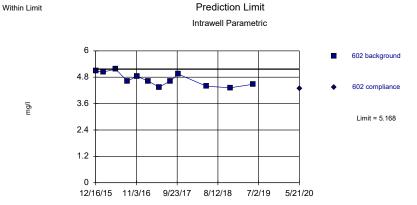


Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values. Prediction Limit Within Limit Intrawell Non-parametric 0.3 601 background 0.24 601 compliance 0.18 l/gr Limit = 0.203 0.12 ம்ப–ப 0-0-0-00 -0--0--0 0.06 0 12/16/15 11/3/16 9/23/17 8/12/18 7/2/19 5/21/20

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

> Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG

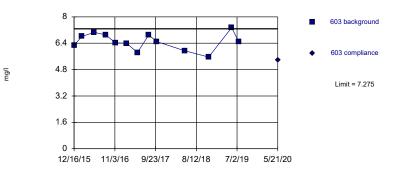


Background Data Summary: Mean=4.707, Std. Dev.=0.2995, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132. Report alpha = 0.00188.

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



Prediction Limit

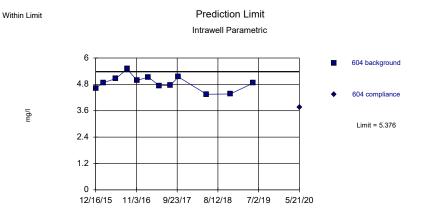


Background Data Summary: Mean=6.496, Std. Dev.-0.5141, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9744, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Boron Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			WORLO	se Generating Stati	UITUWE CIIEIII. SC	53 Engineers Data	a. Montrose		
	506	506	601	601	602	602	603	603	
12/16/2015	<0.2		<0.2		5.08		6.28		
2/16/2016	<0.2		<0.2		5.04		6.81		
5/23/2016	<0.2		<0.2		5.17		7.06		
8/22/2016	<0.2		0.203		4.62		6.91		
11/7/2016					4.84		6.43		
11/8/2016	<0.2		<0.2						
2/7/2017	<0.2		<0.2		4.62		6.39		
5/1/2017	<0.2								
5/2/2017			<0.2		4.35		5.83		
7/31/2017	<0.2		<0.2		4.63		6.9		
10/2/2017	<0.2		<0.2		4.94		6.5		
5/14/2018	<0.2		<0.2		4.39		5.94		
11/19/2018	<0.2		<0.2		4.32		5.56		
5/21/2019	<0.2		<0.2		4.48		7.35		
7/15/2019							6.49		
5/21/2020		<0.2		<0.2		4.27		5.37	

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG

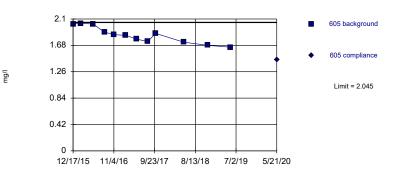


Background Data Summary: Mean=4.864, Std. Dev.=0.3316, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.011, calculated = 0.9664, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.



Within Limit

Prediction Limit



Background Data Summary: Mean=1.842, Std. Dev.=0.132, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9267, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Boron Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG

500

400

300

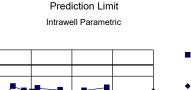
200

100

0

Within Limit

ng/l



5/21/20

♦ 506 compliance

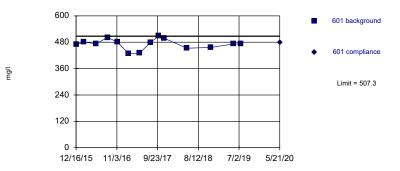
Limit = 442.8

506 background

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



Prediction Limit Intrawell Parametric



Background Data Summary: Mean=471.6, Std. Dev.=24.04, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Background Data Summary: Mean=373.9, Std. Dev.=45.49, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8335, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

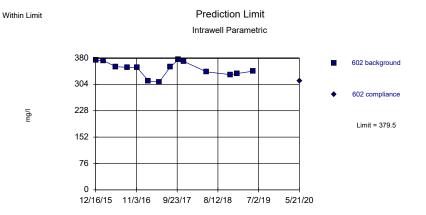
12/16/15 11/3/16 9/23/17 8/12/18 7/2/19

Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Boron, Calcium Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			wontro	se Generating Static	on UVVL Client: S	CS Engineers Dat	ta: Montrose		
	604	604	605	605	506	506	601	601	
12/16/2015	4.62				479		469		
12/17/2015			2.02						
2/16/2016	4.88		2.03		448		481		
5/23/2016	5.06		2.02		404		473		
8/22/2016	5.5		1.89		393		502		
11/7/2016	4.98		1.85						
11/8/2016					363		481		
2/7/2017	5.13		1.84		322		427		
5/1/2017					361				
5/2/2017	4.74		1.78				430		
7/31/2017	4.75		1.74		346		480		
10/2/2017	5.14		1.87		341		508		
11/15/2017					354		498		
5/14/2018	4.35		1.73		347		453		
11/19/2018	4.36		1.68		346		456		
5/21/2019	4.86		1.65		357		472		
7/15/2019							472		
5/21/2020		3.76		1.45		343		478	

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG

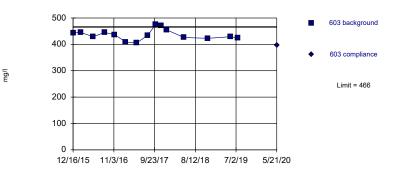


Background Data Summary: Mean=348.4, Std. Dev.=20.89, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.



Within Limit

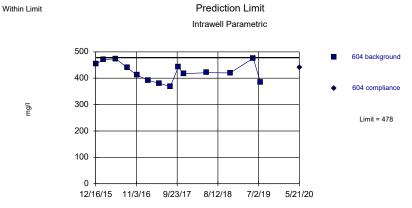
Prediction Limit



Background Data Summary: Mean=436.8, Std. Dev.=20.01, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, 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 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Calcium Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

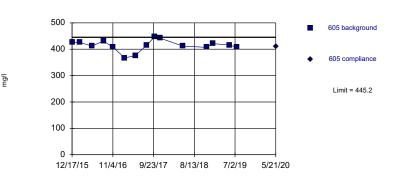
Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



Background Data Summary: Mean=425.3, Std. Dev.=35.45, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188. Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



Prediction Limit



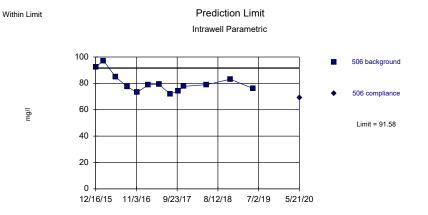
Intrawell Parametric

Background Data Summary: Mean=414.2, Std. Dev.=21.27, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Calcium Analysis Run 9/9/2020 2:25 PM View: LF CCR III

Molituse Generating Station UWL Citerit. SCS Engineers Data. Molituse										
	602	602	603	603	604	604	605	605		
12/16/2015	373		444		454					
12/17/2015							427			
2/16/2016	372		445		470		426			
5/23/2016	355		429		474		412			
8/22/2016	353		445		440		431			
11/7/2016	353		437		412		407			
2/7/2017	314		409		392		367			
5/2/2017	310		405		381		376			
7/31/2017	354		434		369		415			
10/2/2017	375		476		442		447			
11/15/2017	370		471		417		442			
12/29/2017			455							
5/14/2018	340		426		421		412			
11/19/2018	332		423		420		407			
1/10/2019	335						421			
5/21/2019	342		429		476		416			
7/15/2019			424		386		407			
5/21/2020		313		397		440		411		

Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



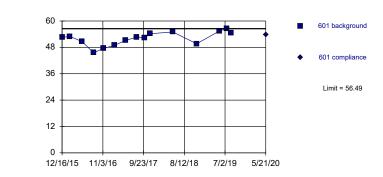
Background Data Summary: Mean=80.4, Std. Dev.=7.382, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8755, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.





l/gr

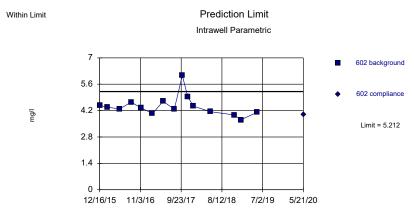




Background Data Summary: Mean=51.97, Std. Dev.=3.1, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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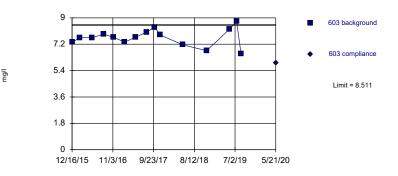


Background Data Summary (based on square root transformation): Mean=2.102, Std. Dev.=0.1238, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8603, critical = 0.855. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Prediction Limit Intrawell Parametric

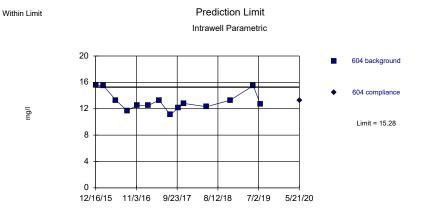


Background Data Summary: Mean=7.659, Std. Dev.=0.5838, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9807, critical = 0.835. Kappa = 1.458 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			Montrose Ger	ierating Station UVVL	. Client: SCS Eng	ineers Data: Mon	trose	
	506	506	601	601	602	602	603	603
12/16/2015	92.4		52.5		4.48		7.33	
2/16/2016	97.2		53		4.38		7.65	
5/23/2016	84.7		50.6		4.29		7.64	
8/22/2016	77.5		45.5		4.65		7.9	
11/7/2016					4.35		7.67	
11/8/2016	73.1		47.5					
2/7/2017	79		49		4.04		7.35	
5/1/2017	79.2							
5/2/2017			51.1		4.69		7.67	
7/31/2017	71.9		52.7		4.28		8.03	
10/2/2017	74.4		52.4		6.06		8.37	
11/15/2017	77.7		54.2		4.93		7.83	
12/29/2017					4.44			
5/14/2018	79		55		4.14		7.16	
11/19/2018	83.1		49.6		3.97		6.76	
1/10/2019					3.71			
5/21/2019	76		55.5		4.11		8.24	
7/15/2019			56.5				8.75	
8/19/2019			54.5				6.54	
5/21/2020		69.3		53.8		3.99		5.93

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Background Data Summary: Mean=13.16, Std. Dev.=1.425, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8723, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.







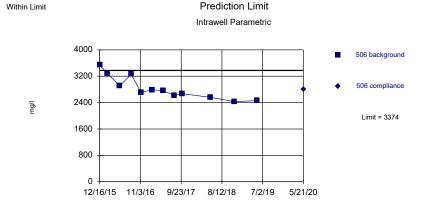


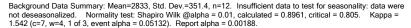
Background Data Summary: Mean=49.93, Std. Dev.=3.99, n=17. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.851. Kappa = 1.413 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 9/9/2020 2:22 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Chloride Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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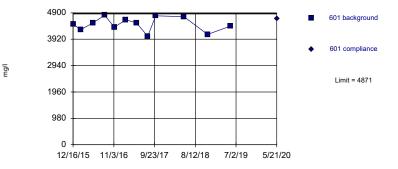
Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG







Prediction Limit Intrawell Parametric

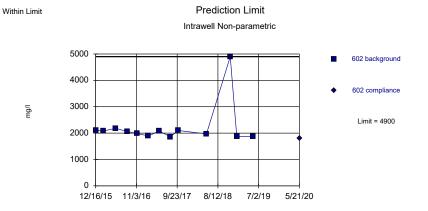


Background Data Summary: Mean=4477, Std. Dev.=255.5, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride, Dissolved Solids Analysis Run 9/9/2020 2:25 PM View: LF CCR III

	604	604	605	605	506	506	601	601	
12/16/2015	15.6				3540		4470		
12/17/2015			43.9						
2/16/2016	15.5		45.7		3280		4280		
5/23/2016	13.3		47.3		2910		4530		
8/22/2016	11.7		46.5		3260		4810		
11/7/2016	12.5		48.2						
11/8/2016					2710		4370		
2/7/2017	12.5		48		2790		4640		
5/1/2017					2760				
5/2/2017	13.3		48.7				4530		
7/31/2017	11.1		49.1		2620		4030		
10/2/2017	12.1		48.7		2670		4790		
11/15/2017	12.8		48.8						
5/14/2018	12.3		47.8		2560		4760		
11/19/2018	13.3		51.7		2430		4100		
1/10/2019			50.9						
3/13/2019			52.4						
5/21/2019	15.5		55.4		2460		4410		
7/15/2019	12.7		57.8						
8/19/2019			57.9						
5/21/2020		13.3		60.2		2800		4680	
7/14/2020				62.1 1st Verificatio	n Sample				
8/26/2020				61.6 2nd Verificat	ion Sample				

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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.

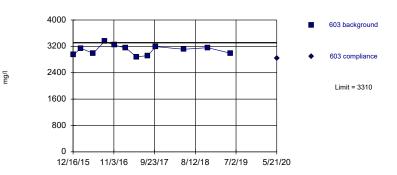
Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric





Background Data Summary: Mean=3088, Std. Dev.=143.6, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9528, 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 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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4000

3200

2400

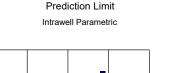
1600

800

0

Within Limit

ng/l



♦ 604 compliance

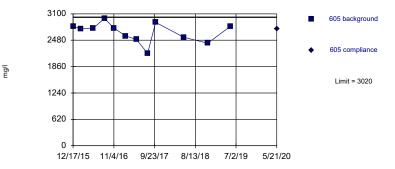
Limit = 3150

604 background

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Prediction Limit Intrawell Parametric



Background Data Summary: Mean=2665, Std. Dev.=230.2, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9421, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Background Data Summary: Mean=2648, Std. Dev.=331.5, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9778, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

5/21/20

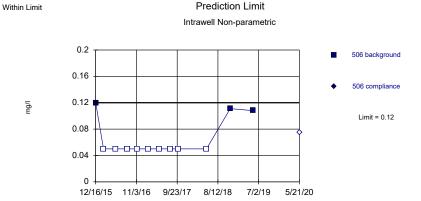
12/16/15 11/3/16 9/23/17 8/12/18 7/2/19

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Dissolved Solids Analysis Run 9/9/2020 2:25 PM View: LF CCR III

	Montose Ceneraling Station OVE Chent. Soo Engineers Data. Montose									
	602	602	603	603	604	604	605	605		
12/16/2015	2100		2940		2820					
12/17/2015							2800			
2/16/2016	2080		3140		2690		2750			
5/23/2016	2180		2990		3010		2760			
8/22/2016	2060		3350		2890		2990			
11/7/2016	1990		3240		2270		2760			
2/7/2017	1890		3150		2670		2580			
5/2/2017	2080		2880		2350		2500			
7/31/2017	1860		2920		2070		2170			
10/2/2017	2100		3190		2570		2900			
5/14/2018	1970		3110		2820		2550			
11/19/2018	4900		3160		2320		2410			
1/10/2019	1870									
5/21/2019	1870		2990		3270		2810			
7/15/2019					2680					
5/21/2020		1800		2840		2780		2740		

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Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

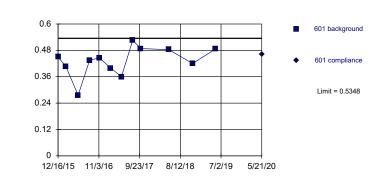


Within Limit

l/gm

Prediction Limit

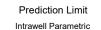


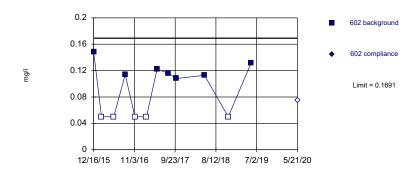


Background Data Summary: Mean=0.4313, Std. Dev.=0.06712, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Sanitas^{ter} v.9.6.27 Sanitas software licensed to SCS Engineers. UG Hollow symbols indicate censored values. Within Limit

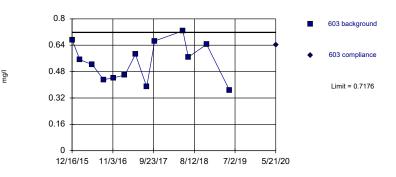




Background Data Summary (after Aitchison's Adjustment): Mean=0.07108, Std. Dev.=0.06358, n=12, 41.67% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8063, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188. Sanitas™ v.9.6.27 Sanitas software licensed to SCS Engineers. UG



Prediction Limit

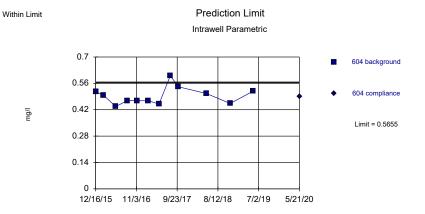


Background Data Summary: Mean=0.5403, Std. Dev.=0.1171, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9546, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			Workios	e denerating otatio		5 Eligineers Date	a. Montrose		
	506	506	601	601	602	602	603	603	
12/16/2015	0.12		0.45		0.148		0.673		
2/16/2016	<0.1		0.406		<0.1		0.552		
5/23/2016	<0.1		0.276		<0.1		0.523		
8/22/2016	<0.1		0.435		0.114		0.431		
11/7/2016					<0.1		0.442		
11/8/2016	<0.1		0.446						
2/7/2017	<0.1		0.399		<0.1		0.459		
5/1/2017	<0.1								
5/2/2017			0.36		0.122		0.585		
7/31/2017	<0.1		0.526		0.116		0.388		
10/2/2017	<0.1		0.488		0.108		0.666		
5/14/2018	<0.1		0.483		0.113		0.727		
6/26/2018							0.568		
11/19/2018	0.111		0.42		<0.1		0.645		
5/21/2019	0.108		0.487		0.132		0.365		
5/21/2020		<0.15		0.462		<0.15		0.642	

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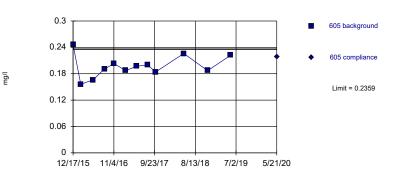
Background Data Summary: Mean=0.4936, Std. Dev.=0.04663, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05123). Report alpha = 0.00188.



Within Limit

Prediction Limit





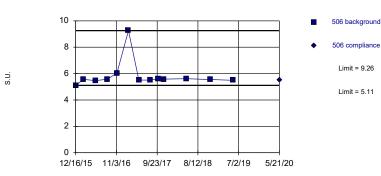
Background Data Summary: Mean=0.1971, Std. Dev.=0.02515, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9677, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Fluoride Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limits

Prediction Limit Intrawell Non-parametric

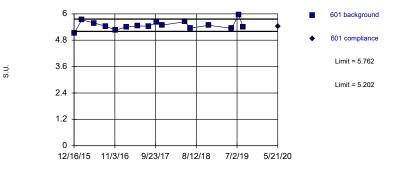


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 13 background values. Well-constituent pair annual alpha = 0.007539. Individual comparison alpha = 0.003773 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

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Prediction Limit Intrawell Parametric

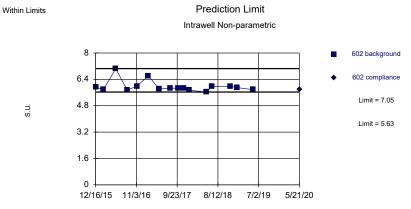


Background Data Summary: Mean=5.482, Std. Dev.=0.1956, n=16. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9558, critical = 0.844. Kappa = 1.43 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

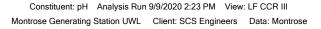
Constituent: Fluoride, pH Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			Montrose Gen	erating Station UWL	Client: SCS Eng	ineers Data: Mont	rose	
	604	604	605	605	506	506	601	601
12/16/2015	0.515				5.11		5.12	
12/17/2015			0.246					
2/16/2016	0.497		0.156		5.56		5.73	
5/23/2016	0.437		0.166		5.47		5.58	
8/22/2016	0.468		0.191		5.57		5.44	
11/7/2016	0.468		0.203					
11/8/2016					6.04		5.26	
2/7/2017	0.467		0.187		9.26		5.41	
5/1/2017					5.51			
5/2/2017	0.45		0.197				5.45	
7/31/2017	0.601		0.2		5.51		5.44	
10/2/2017	0.542		0.184		5.59		5.61	
11/15/2017					5.58		5.49	
5/14/2018	0.506		0.226		5.61		5.64	
6/26/2018							5.35	
11/19/2018	0.453		0.187		5.55		5.48	
5/21/2019	0.519		0.222		5.49		5.34	
7/15/2019							5.96	
8/19/2019							5.41	
5/21/2020		0.489		0.219		5.53		5.42

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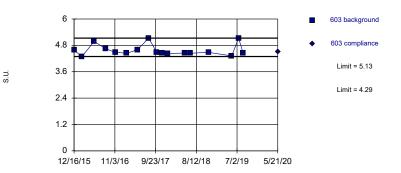
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.004102. Individual comparison alpha = 0.002052 (1 of 3). Insufficient data to test for seasonalized.



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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 17 background values. Well-constituent pair annual alpha = 0.003639. Individual comparison alpha = 0.00182 (1 of 3). Insufficient data to test for seasonality: data were not deseasonalized.

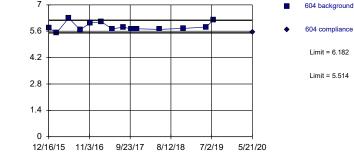
Constituent: pH Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limits

S.U

Prediction Limit Intrawell Parametric

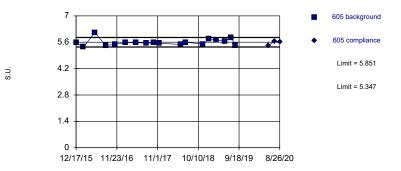


Background Data Summary: Mean=5.848, Std. Dev.=0.2249, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8937, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132. Report alpha = 0.00188.

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Prediction Limit Intrawell Parametric

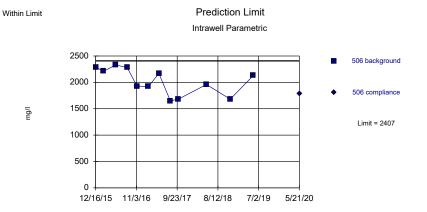


Background Data Summary: Mean=5.599, Std. Dev.=0.1804, n=18. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.858. Kappa = 1.396 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 9/9/2020 2:25 PM View: LF CCR III

			Montro	se Generating Station	on UWL Client: SC	S Engineers Data	a: Montrose		
	602	602	603	603	604	604	605	605	
12/16/2015	5.93		4.58		5.79				
12/17/2015							5.57		
2/16/2016	5.78		4.29		5.51		5.34		
5/23/2016	7.05		4.98		6.3		6.11		
8/22/2016	5.74		4.65		5.67		5.42		
11/7/2016	5.99		4.48		6.04		5.49		
2/7/2017	6.62		4.44		6.1		5.58		
5/2/2017	5.81		4.6		5.72		5.58		
7/31/2017	5.87		5.13		5.82		5.55		
10/2/2017	5.86		4.48		5.72		5.58		
11/15/2017	5.87		4.44		5.73		5.55		
12/29/2017	5.74		4.43						
5/14/2018	5.63		4.45		5.7		5.48		
6/26/2018	5.98		4.44				5.6		
11/19/2018	5.98		4.48		5.75		5.5		
1/10/2019	5.9						5.79		
3/13/2019							5.73		
5/21/2019	5.77		4.32		5.82		5.64		
7/15/2019			5.13		6.2		5.85		
8/19/2019			4.46				5.42		
5/21/2020		5.79		4.5		5.54		5.42	
7/14/2020								5.66 Extra Sample	
8/26/2020								5.62 Extra Sample	

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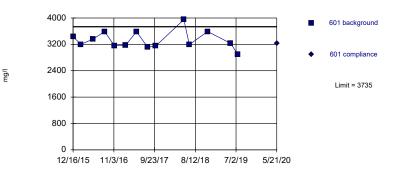


Background Data Summary: Mean=2019, Std. Dev.=251.7, n=12. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8935, critical = 0.805. Kappa = 1.542 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.



Within Limit

Prediction Limit



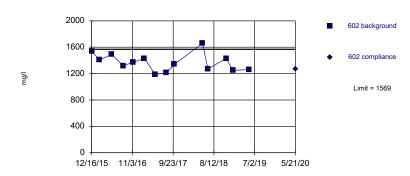
Background Data Summary: Mean=3331, Std. Dev.=272, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9196, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

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Within Limit

Prediction Limit

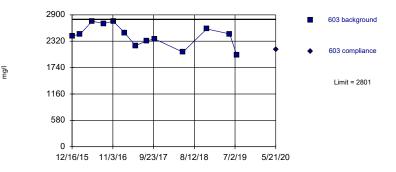


Background Data Summary: Mean=1369, Std. Dev.=134.2, n=14. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.956, critical = 0.825. Kappa = 1.486 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

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Prediction Limit

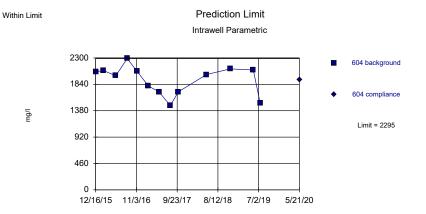


Background Data Summary: Mean=2441, Std. Dev.=237.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9483, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 9/9/2020 2:25 PM View: LF CCR III

	506	506	601	601	602	602	603	603	
12/16/2015	2290		3430		1540		2440		
2/16/2016	2210		3200		1410		2470		
5/23/2016	2330		3360		1490		2760		
8/22/2016	2280		3590		1320		2710		
11/7/2016					1370		2760		
11/8/2016	1930		3160						
2/7/2017	1920		3180		1430		2500		
5/1/2017	2170								
5/2/2017			3590		1190		2220		
7/31/2017	1650		3110		1210		2330		
10/2/2017	1680		3150		1340		2370		
5/14/2018	1960		3950		1660		2080		
6/26/2018			3190		1270				
11/19/2018	1680		3590		1430		2590		
1/10/2019					1250				
5/21/2019	2130		3230		1260		2480		
7/15/2019			2900				2020		
5/21/2020		1780		3230		1270		2140	

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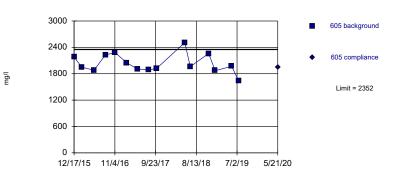


Background Data Summary: Mean=1916, Std. Dev.=250.6, n=13. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.814. Kappa = 1.514 (c=7, w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.00188.

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Prediction Limit Intrawell Parametric



Background Data Summary: Mean=2033, Std. Dev.=218.7, n=15. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.835. Kappa = 1.458 (c=7), w=4, 1 of 3, event alpha = 0.05132). Report alpha = 0.0188.

Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Constituent: Sulfate Analysis Run 9/9/2020 2:23 PM View: LF CCR III Montrose Generating Station UWL Client: SCS Engineers Data: Montrose

Constituent: Sulfate Analysis Run 9/9/2020 2:25 PM View: LF CCR III

	604	604	605	605
12/16/2015	2060			
12/17/2015			2180	
2/16/2016	2080		1950	
5/23/2016	1990		1880	
8/22/2016	2290		2230	
11/7/2016	2070		2280	
2/7/2017	1810		2050	
5/2/2017	1710		1910	
7/31/2017	1470		1890	
10/2/2017	1710		1920	
5/14/2018	2010		2510	
6/26/2018			1960	
11/19/2018	2110		2260	
1/10/2019			1870	
5/21/2019	2090		1970	
7/15/2019	1510		1640	
5/21/2020		1920		1940

Montrose Generating Station UWL Client: SCS Engineers Data: Montrose Printed 9/9/2020, 2:25 PM Constituent Well Upper Lim. Lower Lim. Date <u>Bg N</u> %NDs Transform Alpha Method Observ. <u>Sig.</u> Boron (mg/l) 506 0.2 n/a 5/21/2020 0.1ND No 12 100 n/a 0.002173 NP Intra (NDs) 1 of 3 601 0.203 5/21/2020 0.1ND No 12 91.67 0.002173 NP Intra (NDs) 1 of 3 Boron (mg/l) n/a n/a 602 12 Boron (mg/l) 5.168 5/21/2020 4.27 No 0 No 0.00188 Param Intra 1 of 3 n/a 603 Boron (mg/l) 7.275 n/a 5/21/2020 5.37 No 13 0 No 0.00188 Param Intra 1 of 3 604 5.376 Boron (mg/l) 5/21/2020 3.76 12 0 No 0.00188 n/a No Param Intra 1 of 3 Boron (mg/l) 605 2.045 5/21/2020 1.45 No 12 0 No 0.00188 Param Intra 1 of 3 n/a 506 442.8 5/21/2020 343 13 0 0.00188 Param Intra 1 of 3 Calcium (mg/l) No No n/a 601 507.3 478 0 Calcium (mg/l) n/a 5/21/2020 No 14 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 602 379.5 n/a 5/21/2020 313 No 14 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 603 466 n/a 5/21/2020 397 No 15 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 604 478 n/a 5/21/2020 440 No 14 0 No 0.00188 Param Intra 1 of 3 Calcium (mg/l) 605 445.2 n/a 5/21/2020 411 No 15 0 No 0.00188 Param Intra 1 of 3 Chloride (mg/l) 506 91.58 n/a 5/21/2020 69.3 No 13 0 No 0.00188 Param Intra 1 of 3 56.49 Chloride (mg/l) 601 n/a 5/21/2020 53.8 No 15 0 No 0.00188 Param Intra 1 of 3 5/21/2020 602 5.212 3.99 15 0 0.00188 Chloride (mg/l) n/a No sqrt(x) Param Intra 1 of 3 Chloride (mg/l) 603 8.511 5/21/2020 5.93 15 0 0.00188 Param Intra 1 of 3 n/a No No Chloride (mg/l) 604 5/21/2020 0 15.28 n/a 13.3 No 14 No 0.00188 Param Intra 1 of 3 Chloride (mg/l) 605 55.57 8/26/2020 61.6 Yes 17 0 No 0.00188 Param Intra 1 of 3 n/a 506 12 Dissolved Solids (mg/l) 3374 n/a 5/21/2020 2800 No 0 No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 601 4871 4680 12 0 n/a 5/21/2020 No No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 602 4900 5/21/2020 1800 13 0.001886 NP Intra (normality) ... n/a No 0 n/a Dissolved Solids (mg/l) 603 3310 5/21/2020 2840 No 12 0 No 0.00188 Param Intra 1 of 3 n/a Dissolved Solids (mg/l) 604 3150 n/a 5/21/2020 2780 No 13 0 No 0.00188 Param Intra 1 of 3 Dissolved Solids (mg/l) 605 3020 n/a 5/21/2020 2740 No 12 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 506 0.12 5/21/2020 0.075ND 12 75 0.002173 NP Intra (NDs) 1 of 3 n/a No n/a Fluoride (mg/l) 601 0.5348 n/a 5/21/2020 0.462 No 12 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 602 0.1691 n/a 5/21/2020 0.075ND No 12 41.67 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 603 0.7176 n/a 5/21/2020 0.642 No 13 0 No 0.00188 Param Intra 1 of 3 Fluoride (mg/l) 604 0.5655 n/a 5/21/2020 0.489 No 12 0 No 0.00188 Param Intra 1 of 3 605 12 Fluoride (mg/l) 0.2359 n/a 5/21/2020 0.219 No 0 No 0.00188 Param Intra 1 of 3 506 pH (S.U.) 9.26 5.11 5/21/2020 5.53 No 13 0 n/a 0.003773 NP Intra (normality) ... pH (S.U.) 601 5.762 5.202 5/21/2020 5.42 16 0 No 0.000... Param Intra 1 of 3 No pH (S.U.) 602 7.05 5.63 5/21/2020 5.79 No 16 0 n/a 0.002052 NP Intra (normality) ... 603 5.13 4.29 5/21/2020 4.5 17 0 0.00182 NP Intra (normality) ... pH (S.U.) No n/a pH (S.U.) 604 6.182 5.514 5/21/2020 5.54 14 0 No 0.000... Param Intra 1 of 3 No pH (S.U.) 605 5.851 5.347 8/26/2020 5.62 No 18 0 No 0.000... Param Intra 1 of 3 506 Sulfate (mg/l) 2407 n/a 5/21/2020 1780 No 12 0 No 0.00188 Param Intra 1 of 3 Sulfate (mg/l) 601 3735 n/a 5/21/2020 3230 No 14 0 No 0.00188 Param Intra 1 of 3 Sulfate (mg/l) 602 1569 5/21/2020 1270 0 0.00188 n/a No 14 No Param Intra 1 of 3 603 0 Sulfate (mg/l) 2801 5/21/2020 2140 No 13 0.00188 Param Intra 1 of 3 n/a No 604 5/21/2020 Sulfate (mg/l) 2295 n/a 1920 No 13 0 No 0.00188 Param Intra 1 of 3

5/21/2020

1940

No

15 0

No

0.00188

Param Intra 1 of 3

Sulfate (mg/l)

605

2352

n/a

Montrose Generating Station Determination of Statistically Significant Increases CCR Landfill September 28, 2020

ATTACHMENT 2

Sanitas[™] Configuration Settings

Data	Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests
Exclud	le data flag	s: i							
Data	Reading O	ptions							
🔘 In	ndividual Ob	oservations							
\bigcirc M	lean of Eac	:h:	O Month						
\bigcirc M	ledian of Ea	ach:	Seasor	n					
Setup	Seasons	ace Handling. Process Resa							

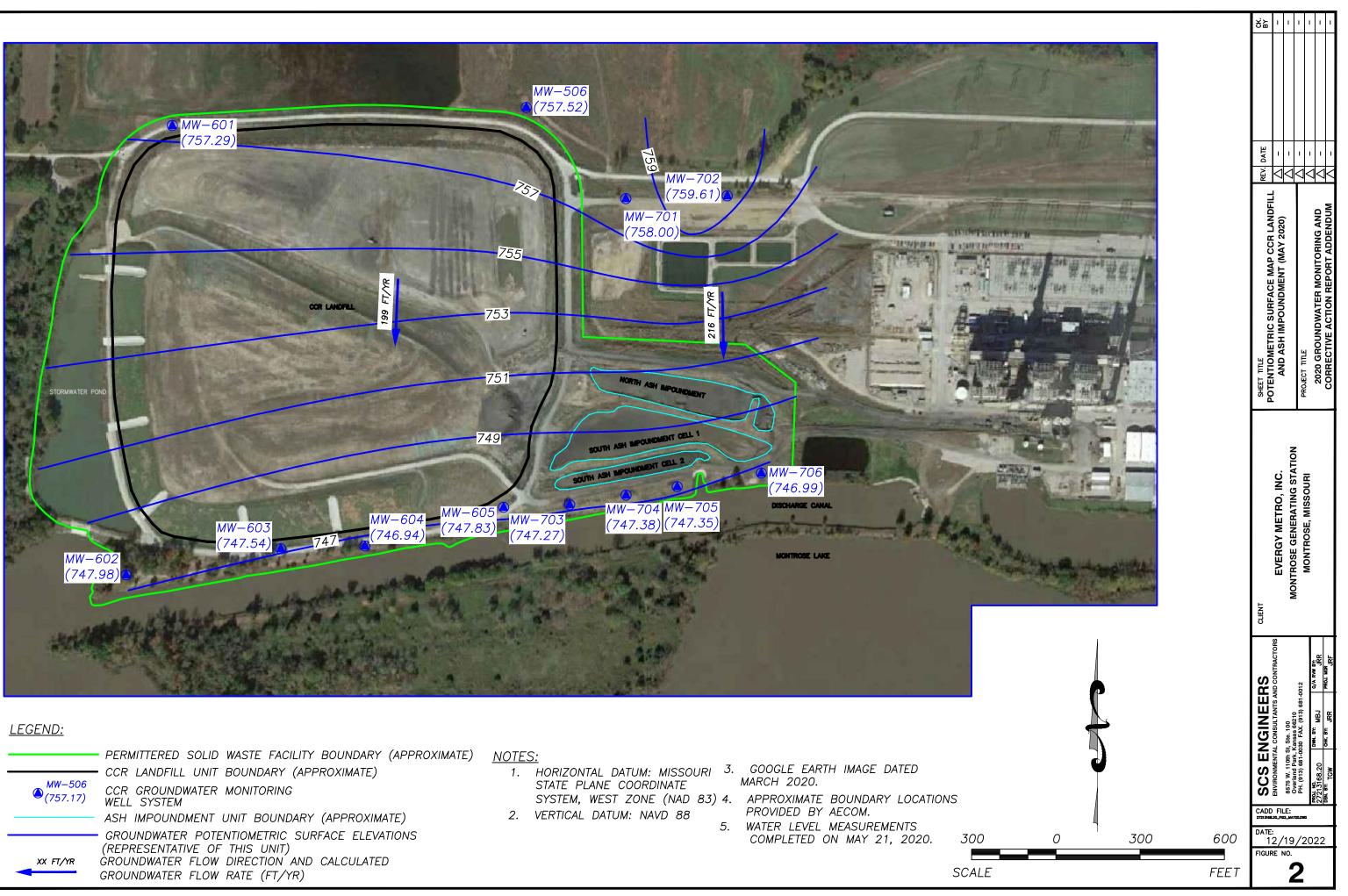
Data Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests		
Use Modified Alpha										
✓ Test Residua	ls For Normalit	y (Parametric f	est only) using	Shapiro-Wilk/Fra	ancia 🗸 🗸	at Alpha	= 0.01	\sim		
Continue	Parametric if l	Inable to Nom	nalize							
Transformation (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 > 75 Include 95. % 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.										

Data	Output	Trend Test	Control Cht	Prediction Lim	Tolerance Lim	Conf/Tol Int	ANOVA	Welchs	Other Tests		
⊡ Use		netric Test wh	apiro-Wilk/Fra nen Non-Dete	cts Percent > 5	at Alpha = 0.01 Image: Constraint of the second						
_			Use Aitchise	etects Percent > on's v w		Natural Log V					
Use	Poisson Pr	ediction Limit	when Non-De	etects Percent >	90		Plot Transfo	ormed Value	es		
If If If A Facility Statist Constri Down Sampli	Seasonality Seasonality Iways (Whe Iways Use / α ical Evalua tuents Anal gradient (Co ing Plan	en Sufficient E Non-Parametr tions per Year yzed: ompliance) Wo	Or Insufficient Data) O ic r: ells:	to Test Never	Plot Ba Override St Override D Automa 2-Taileo Show D Non-Paramo	Background Tr ckground Data andard Deviati F:(tically Remove d Test Mode Deselected Dat etric Limit =	a ion: Ovenide Kap Backgroun Backgroun a Lighter Highest Bac	ppa:			
01	of 1 C	ividual Obsen) 1 of 2 (ified California	1 of 3	✓ 1 of 4	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)						

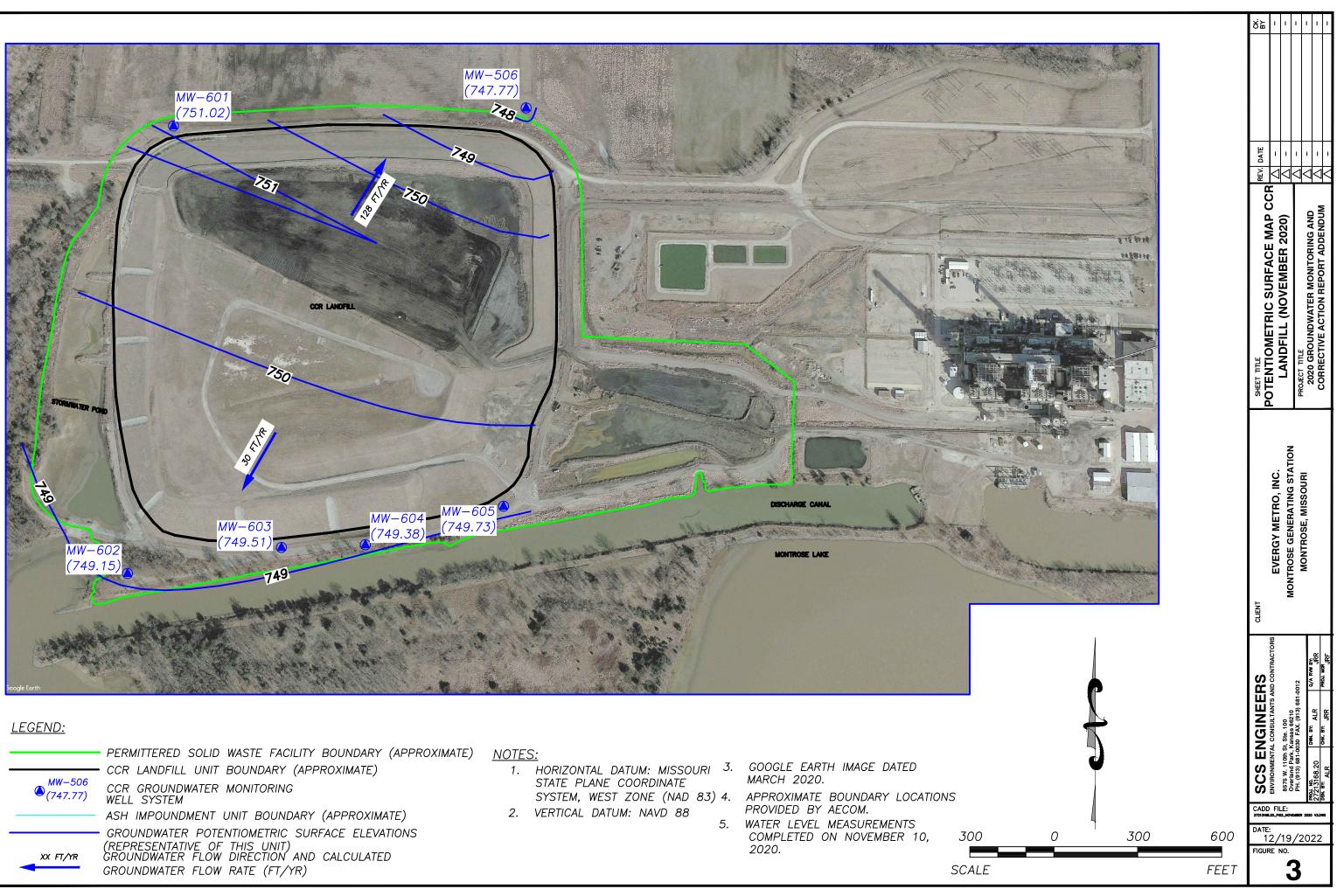
Rank Von Neumann, Wilcoxon Rank Sum / Mann-Whitney								
Use Modified Alpha 2-Tailed Test Mode Combine Background Wells on Mann-Whitney								
Outlier Tests								
EPA 1989 Outlier Screening (fixed alpha of 0.05)								
• Dixon's at $\alpha = 0.05 \lor$ or if n > 22 \lor Rosner's at $\alpha = 0.01 \lor$ Use EPA Screening to establish Suspected Outliers								
O Tukey's Outlier Screening, with IQR Multiplier = 3.0 Use Ladder of Powers to achieve Best W Stat								
Test For Normality using Shapiro-Wilk/Francia V at Alpha = 0.1 V								
Stop if Non-Normal								
O Continue with Parametric Test if Non-Normal								
○ Tukey's if Non-Normal, with IQR Multiplier = 3.0								
No Outlier If Less Than 3.0 Times Median								
Apply Rules found in Ohio Guidance Document 0715								
Combine Background Wells on the Outlier Report								
Piper, Stiff Diagram								
Combine Wells								
Combine Dates Label Axes								
Use Default Constituent Names Note Cation-Anion Balance (Piper only)								
O Use Constituent Definition File Edit								

Jared Morrison December 20, 2022

ATTACHMENT 3 Groundwater Potentiometric Surface Maps



₩₩-506 (757.17)	 PERMITTERED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE) CCR LANDFILL UNIT BOUNDARY (APPROXIMATE) CCR GROUNDWATER MONITORING WELL SYSTEM ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE) GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS 	<u>NOTE</u> 1. 2.	HORIZONTAL DATUM: MISSOURI ³ . STATE PLANE COORDINATE	MARCH 2020. APPROXIMATE BOUNDARY LOCATIONS PROVIDED BY AECOM. WATER LEVEL MEASUREMENTS
XX FT/YR	(REPRESENTATIVE OF THIS UNIT) GROUNDWATER FLOW DIRECTION AND CALCULATED			COMPLETED ON MAY 21, 2020.
	GROUNDWATER FLOW RATE (FT/YR)			S



₩₩-506 (747.77)	 PERMITTERED SOLID WASTE FACILITY BOUNDARY (APPROXIMATE) CCR LANDFILL UNIT BOUNDARY (APPROXIMATE) CCR GROUNDWATER MONITORING WELL SYSTEM ASH IMPOUNDMENT UNIT BOUNDARY (APPROXIMATE) CROUNDWATER DOTENTIONETRIC SUBSACE ELEVATIONS 	<u>NOTE</u> 1. 2.	4.	PROVIDED BY AECOM. WATER LEVEL MEASUREMENTS
XX FT/YR	- GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS (REPRESENTATIVE OF THIS UNIT) GROUNDWATER FLOW DIRECTION AND CALCULATED GROUNDWATER FLOW RATE (FT/YR)			COMPLETED ON NOVEMBER 1 2020.