Entergy Arkansas, LLC
Independence Steam Electric Station
Landfill Cells 12-15

2022 Annual Groundwater Monitoring and Corrective Action Report

Prepared in Compliance with the EPA Final Rule for the Disposal of Coal Combustion Residuals Title 40 CFR Part 257

Prepared for:

PO Box 551
Little Rock, Arkansas 72203

Prepared by:

8550 United Plaza Blvd. Suite 502
Baton Rouge, LA 70809

January 31, 2023

TABLE OF CONTENTS

LIST OF APPENDICES

EXECUTIVE SUMMARY

Entergy Arkansas, LLC (Entergy), operates a coal ash disposal landfill (Landfill) for the disposal of coal combustion residuals (CCR) at the Independence Steam Electric Station (Plant) located near Newark, Arkansas. The Landfill receives CCR generated from the combustion of coal at the Plant. Management of CCR at the Landfill is performed pursuant to national criteria established in Title 40 of the Code of Federal Regulations (40 CFR), Part 257 (CCR Rule), effective April 19, 2015 and subsequent revisions to the CCR Rule.

The Plant conducted two semi-annual detection monitoring events in 2022 for the Landfill CCR Unit monitoring well network per 40 CFR § 257.94. The statistical analyses completed for the second semi-annual 2021 and the first semi-annual 2022 monitoring events did not identify any statistically significant exceedances. The Landfill CCR unit operated under the detection monitoring program (40 CFR § 257.94) during the duration of 2022.

1. INTRODUCTION

Entergy Arkansas, LLC (Entergy), operates the Landfill for the disposal of CCR at the Plant located near Newark, Arkansas (Lat: 35.67826 / Long: -91.408848). The Landfill receives CCR generated from the combustion of coal at the Plant. The CCR Landfill is managed in accordance with the national criteria established in the CCR Rule. Entergy installed a groundwater monitoring system at the Landfill that is subject to the groundwater monitoring and corrective action requirements provided under §§257.90 through 257.98 of the CCR rule. In accordance with §257.90(e) of the CCR rule, Entergy must prepare an annual report that provides information regarding the groundwater monitoring and corrective action program at the Landfill.

2. GROUNDWATER MONITORING SYSTEM

The Landfill's groundwater monitoring system consists of 11 monitoring wells as shown on Figure 1 included in Appendix A. Pursuant to §257.91(f) of the CCR Rule, a qualified Arkansas-registered professional engineer has certified the groundwater monitoring system, which was designed and constructed to meet the requirements of §257.91.

3. INSTALLED OR DECOMISSIONED WELLS DURING 2022

Entergy did not install any new wells or decommission any existing wells in the certified groundwater monitoring system during 2022.

4. GROUNDWATER MONITORING DATA

In accordance with §257.90(e)(3), all monitoring data obtained under §§257.90 through 257.98 during 2022 are provided in Appendix B. Data include:

- Summary of the number of groundwater samples that were collected for analysis for each background and downgradient well;
- Dates the samples were collected; and
- Whether the sample was collected as part of detection or assessment monitoring.

5. STATUS SUMMARY OF THE 2022 GROUNDWATER MONITORING PROGRAM

Groundwater monitoring was performed in accordance with the detection monitoring requirements of §257.94. A summary of activities related to groundwater detection monitoring performed during 2022 is provided in the list below:

- In accordance with §257.94(b), semiannual detection monitoring was performed during the first half (June) and second half (November and December) of 2022 for analysis of Appendix III parameters (boron, calcium, chloride, fluoride, pH, sulfate and total dissolved solids (TDS)).

- Statistical evaluation of the semiannual detection monitoring data was performed in accordance with the statistical method certified by a qualified Arkansas-registered professional engineer. The certified statistical method has been posted to Entergy's CCR Rule Compliance Data and Information website.

- Statistical evaluation of the second half 2021 semi-annual detection monitoring event was completed in 2022 and no SSIs were identified; therefore, Entergy did not prepare an alternative source demonstration (ASD) per §257.94(e)(2) for the detection monitoring event for the CADL CCR Unit.

- The first-half 2022 detection monitoring sampling was performed during June 2022. Based on statistical evaluation of the data, resampling was not required, and no statistically significant increases (SSIs) were identified.

- The second-half 2022 detection monitoring sampling was performed during November and December 2022. Statistical evaluation of the data will be performed in 2023 to determine if any SSIs are identified in accordance with §257.93(h).

- No problems were encountered during 2022 regarding the detection monitoring and corrective action system. Therefore, no actions were required to modify the system.

- The Landfill CCR unit remained in detection monitoring during the duration of 2022.

6. PROJECTED ACTIVITIES FOR 2023

Planned activities for the program during 2023 are listed below:

- Statistical evaluation of the second half 2022 and first-half 2023 detection monitoring sampling data will be performed during 2023 to determine if any SSIs are identified.
- Semiannual detection monitoring is planned for June and November 2023.

APPENDIX A
SITE MAP

LEGEND

- CADL MONITORING WELLS
- CCR UNIT BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM ESRI/DIGITAL GLOBE, 2016.

0 900 1,800 Feet

1 " = 900 '

1:10,800

PROJECT:
ENTERGY INDEPENDENCE PLANT
555 POINT FERRY ROAD
NEWARK, ARKANSAS

TITLE:
MONITORING WELL LOCATIONS FOR CCR GROUNDWATER MONITORING NETWORK

DRAWN BY:	S. MAJOR	PROJ. NO.:	341479
CHECKED BY:	J. HOUSE		
APPROVED BY:	J. HOUSE		**FIGURE 1**
DATE:	OCTOBER 2020		

TRC
Two United Plaza
8550 United Plaza Blvd., Suite 502
Baton Rouge, LA
Phone: 225.216.7483

FILE NO.: 341479-005IND.mxd

TRC - GIS
Plot Date: 1/5/2021, 15:59:32 PM by SMAJOR -- LAYOUT: ANSI B(11"x17")
Path: S:\1-PROJECTS\Entergy\MadisonLegacyProjects\Arkansas\2018_270853\341479-005IND.mxd
Coordinate System: NAD 1983 StatePlane Arkansas North FIPS 0301 Feet (Foot US)
Map Rotation: 0

APPENDIX B
GROUNDWATER MONITORING DATA

Sampling Schedule, Entergy Independence CADL Network			
	Detection Monitoring Sampling Dates and Wells Sampled		
Well ID	6/7-6/8/2022	11/29-12/1/2022	Number of Samples Collected
MW-1R	X	X	2
MW-3	X	X	2
MW-6	X	X	2
MW-7	X	X	2
MW-8	X	X	2
MW-9	X	X	2
MW-10	X	X	2
MW-11	X	X	2
MW-13	X	[1]	1
MW-17	X	[1]	1
MW-18	X	[1]	1

Notes: All samples collected in 2022 were part of the detection monitoring program. No samples collected in 2022 were part of an assessment monitoring program.

[1] Wells MW-13, MW-17 and MW-18 are background wells collected for comparison purposes only. These wells were not accessible during Q4 2022.

Field pH data collected during 2022, Entergy Independence CADL network		
Well ID	Date Collected	pH (su)
MW-1R	6/7/2022	7.03
	11/30/2022	6.89
MW-3	6/8/2022	7.51
	12/1/2022	6.81
MW-6	6/8/2022	7.09
	12/1/2022	6.75
MW-7	6/7/2022	8.33
	12/1/2022	7.64
MW-8	6/8/2022	7.34
	11/29/2022	7.03
MW-9	6/8/2022	7.31
	11/30/2022	6.48
MW-10	6/8/2022	7.51
	11/30/2022	6.75
MW-11	6/7/2022	7.73
	12/1/2022	7.00
MW-13	6/8/2022	7.64
	Not Sampled	N/A
MW-17	6/7/2022	6.97
	Not Sampled	N/A
MW-18	6/7/2022	7.25
	Not Sampled	N/A

ANALYTICAL REPORT

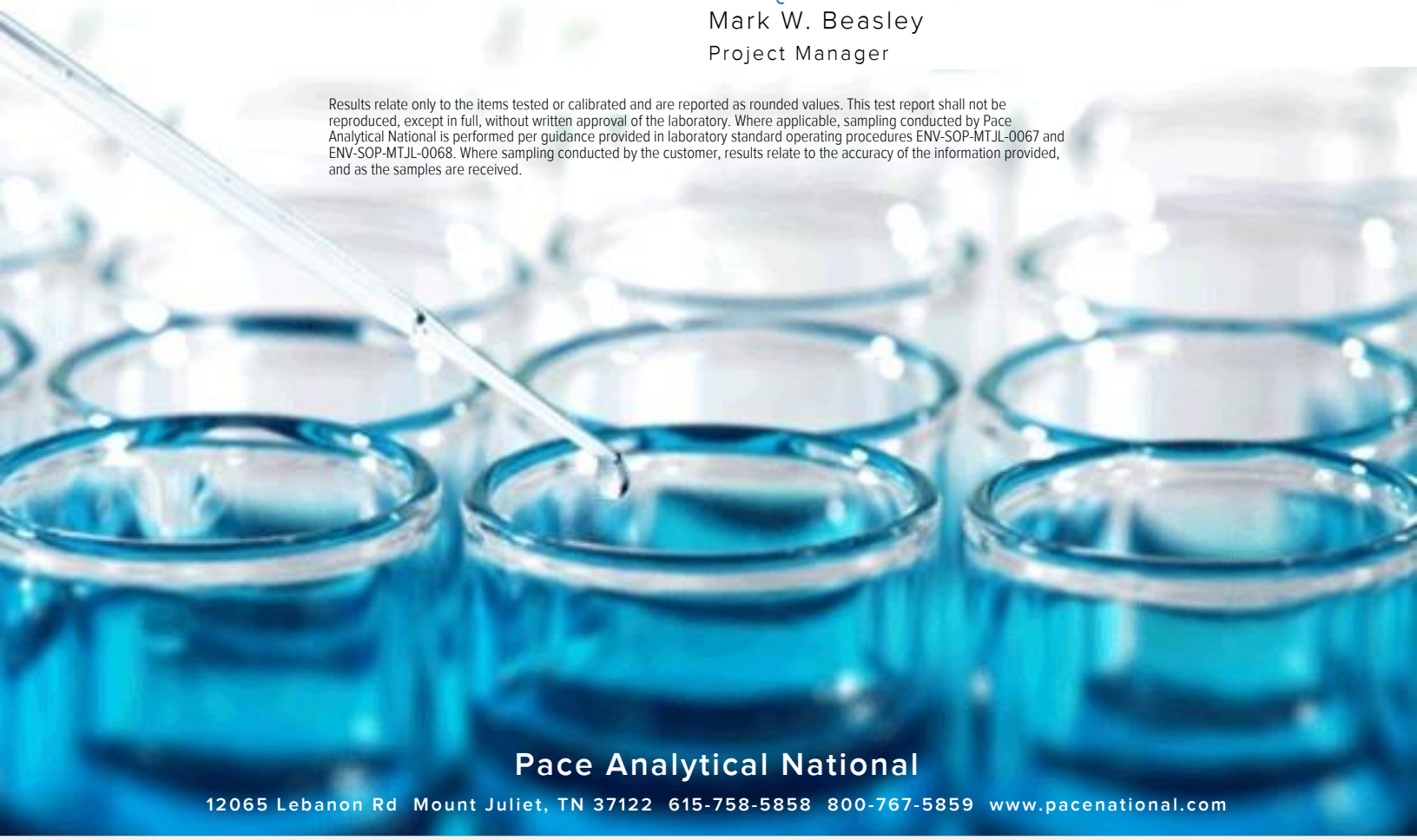
July 11, 2022

GBMc & Associates - Bryant, AR

Sample Delivery Group:	L1503624
Samples Received:	06/09/2022
Project Number:	1145-21-081
Description:	Entergy ISES
Site:	ISES
Report To:	Jonathan Brown 219 Brown Lane Bryant, AR 72022

Entire Report Reviewed By:

Mark W. Beasley
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1R L1503624-01 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 16:00 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 13:48	07/01/22 13:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	5	07/01/22 14:33	07/01/22 14:33	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882587	1	06/23/22 14:03	07/01/22 03:10	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:01	SJM	Mt. Juliet, TN

MW-2 L1503624-02 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 10:25 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 14:48	07/01/22 14:48	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882587	1	06/23/22 14:03	07/01/22 03:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:11	SJM	Mt. Juliet, TN

MW-3 L1503624-03 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 10:40 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1879782	1	06/15/22 15:02	06/15/22 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 15:18	07/01/22 15:18	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882587	1	06/23/22 14:03	07/01/22 03:15	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:14	SJM	Mt. Juliet, TN

MW-6 L1503624-04 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 09:20 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1879782	1	06/15/22 15:02	06/15/22 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 15:33	07/01/22 15:33	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 10:34	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:17	SJM	Mt. Juliet, TN

MW-7 L1503624-05 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 15:10 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 15:48	07/01/22 15:48	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 10:44	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:21	SJM	Mt. Juliet, TN

MW-8 L1503624-06 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 13:50 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1879782	1	06/15/22 15:02	06/15/22 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	1	07/01/22 16:03	07/01/22 16:03	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888329	5	07/01/22 16:28	07/01/22 16:28	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 10:47	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882557	1	06/27/22 03:06	06/28/22 01:24	SJM	Mt. Juliet, TN

MW-9 L1503624-07 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 13:12 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1880039	1	06/15/22 18:14	06/15/22 18:54	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888429	1	07/02/22 05:17	07/02/22 05:17	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 10:50	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:12	LD	Mt. Juliet, TN

MW-10 L1503624-08 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 12:00 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1880039	1	06/15/22 18:14	06/15/22 18:54	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888429	1	07/02/22 05:30	07/02/22 05:30	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 10:52	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:26	LD	Mt. Juliet, TN

MW-11 L1503624-09 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 18:00 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888425	1	07/02/22 18:11	07/02/22 18:11	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:01	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:30	LD	Mt. Juliet, TN

MW-13 L1503624-10 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 14:33 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1880039	1	06/15/22 18:14	06/15/22 18:54	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888429	1	07/02/22 05:44	07/02/22 05:44	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:03	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:33	LD	Mt. Juliet, TN

MW-17 L1503624-11 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 08:27 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888425	1	07/02/22 18:25	07/02/22 18:25	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:06	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:36	LD	Mt. Juliet, TN

MW-18 L1503624-12 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 09:10 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878757	1	06/13/22 16:07	06/13/22 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888425	1	07/02/22 18:40	07/02/22 18:40	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:09	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:46	LD	Mt. Juliet, TN

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

RP-1 L1503624-13 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 18:12 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 12:19	07/01/22 12:19	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:49	LD	Mt. Juliet, TN

RP-2 L1503624-14 GW

Collected by: Danielle Braund | Collected date/time: 06/07/22 08:27 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1879064	1	06/14/22 11:58	06/14/22 13:06	SLP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888425	1	07/02/22 18:54	07/02/22 18:54	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:53	LD	Mt. Juliet, TN

RP-3 L1503624-15 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 17:35 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 12:47	07/01/22 12:47	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:56	LD	Mt. Juliet, TN

RP-4 L1503624-16 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 13:00 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 13:02	07/01/22 13:02	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 15:59	LD	Mt. Juliet, TN

RP-5 L1503624-17 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 12:22 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 13:16	07/01/22 13:16	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:23	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:02	LD	Mt. Juliet, TN

RP-6 L1503624-18 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 13:27 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 13:31	07/01/22 13:31	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:25	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:06	LD	Mt. Juliet, TN

RP-7 L1503624-19 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 16:02 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 14:43	07/01/22 14:43	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:34	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:09	LD	Mt. Juliet, TN

RP-8 L1503624-20 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 14:58 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 14:57	07/01/22 14:57	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:36	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:12	LD	Mt. Juliet, TN

RP-9 L1503624-21 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 14:20 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 15:12	07/01/22 15:12	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:39	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1886539	1	06/28/22 10:09	06/28/22 13:42	SJM	Mt. Juliet, TN

RP-10 L1503624-22 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 13:40 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 15:26	07/01/22 15:26	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:42	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:07	06/28/22 16:15	LD	Mt. Juliet, TN

DUPLICATE 2 RP-9 L1503624-23 GW

Collected by: Danielle Braund | Collected date/time: 06/06/22 14:20 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1878565	1	06/13/22 13:20	06/13/22 14:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888423	1	07/01/22 15:41	07/01/22 15:41	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882588	1	06/26/22 09:28	07/01/22 11:45	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:25	LD	Mt. Juliet, TN

DUPLICATE 4 MW-6 L1503624-24 GW

Collected by: Danielle Braund | Collected date/time: 06/08/22 09:20 | Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1880039	1	06/15/22 18:14	06/15/22 18:54	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1888429	1	07/02/22 05:57	07/02/22 05:57	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882589	1	06/24/22 10:35	06/30/22 20:00	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:29	LD	Mt. Juliet, TN

FIELD BLANK 2 L1503624-25 GW

Collected by: Danielle Braund
Collected date/time: 06/08/22 12:05
Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1879782	1	06/15/22 15:02	06/15/22 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1889341	1	07/03/22 12:48	07/03/22 12:48	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1882589	1	06/24/22 10:35	06/30/22 20:03	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1882558	1	06/26/22 11:02	06/28/22 16:32	LD	Mt. Juliet, TN

TRIP BLANK L1503624-26 GW

Collected by: Danielle Braund
Collected date/time: 06/08/22 12:05
Received date/time: 06/09/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1880034	1	06/15/22 17:25	06/15/22 18:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1889341	1	07/03/22 13:00	07/03/22 13:00	LBR	Mt. Juliet, TN

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.

Mark W. Beasley
Project Manager

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.03	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	639		13.3	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	100		1.00	1	07/01/2022 13:48	WG1888329
Fluoride	ND		0.150	1	07/01/2022 13:48	WG1888329
Sulfate	170		25.0	5	07/01/2022 14:33	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 03:10	WG1882587

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	85.9		1.00	1	06/28/2022 01:01	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.83	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	767		13.3	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	16.5		1.00	1	07/01/2022 14:48	WG1888329
Fluoride	0.169		0.150	1	07/01/2022 14:48	WG1888329
Sulfate	284	E	5.00	1	07/01/2022 14:48	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 03:12	WG1882587

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	127		1.00	1	06/28/2022 01:11	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.51	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	483		10.0	1	06/15/2022 15:42	WG1879782

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	39.2		1.00	1	07/01/2022 15:18	WG1888329
Fluoride	0.182		0.150	1	07/01/2022 15:18	WG1888329
Sulfate	93.9		5.00	1	07/01/2022 15:18	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.275		0.200	1	07/01/2022 03:15	WG1882587

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	62.7		1.00	1	06/28/2022 01:14	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.09	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	388		10.0	1	06/15/2022 15:42	WG1879782

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	30.0		1.00	1	07/01/2022 15:33	WG1888329
Fluoride	ND		0.150	1	07/01/2022 15:33	WG1888329
Sulfate	105	E	5.00	1	07/01/2022 15:33	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 10:34	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	61.9		1.00	1	06/28/2022 01:17	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	8.33	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	510		10.0	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	29.8		1.00	1	07/01/2022 15:48	WG1888329
Fluoride	0.666		0.150	1	07/01/2022 15:48	WG1888329
Sulfate	51.3		5.00	1	07/01/2022 15:48	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 10:44	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	47.5		1.00	1	06/28/2022 01:21	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	8.33	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	839		13.3	1	06/15/2022 15:42	WG1879782

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	141		5.00	5	07/01/2022 16:28	WG1888329
Fluoride	0.160		0.150	1	07/01/2022 16:03	WG1888329
Sulfate	268		25.0	5	07/01/2022 16:28	WG1888329

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 10:47	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	115		1.00	1	06/28/2022 01:24	WG1882557

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.31	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	789		13.3	1	06/15/2022 18:54	WG1880039

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	52.5		1.00	1	07/02/2022 05:17	WG1888429
Fluoride	ND		0.150	1	07/02/2022 05:17	WG1888429
Sulfate	311	E	5.00	1	07/02/2022 05:17	WG1888429

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.593		0.200	1	07/01/2022 10:50	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	102		1.00	1	06/28/2022 15:12	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.52	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	604		13.3	1	06/15/2022 18:54	WG1880039

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	47.5		1.00	1	07/02/2022 05:30	WG1888429
Fluoride	0.186		0.150	1	07/02/2022 05:30	WG1888429
Sulfate	178		5.00	1	07/02/2022 05:30	WG1888429

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	1.21		0.200	1	07/01/2022 10:52	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	81.2		1.00	1	06/28/2022 15:26	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.73	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	360		10.0	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	39.7		1.00	1	07/02/2022 18:11	WG1888425
Fluoride	0.217		0.150	1	07/02/2022 18:11	WG1888425
Sulfate	35.3		5.00	1	07/02/2022 18:11	WG1888425

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:01	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	62.0		1.00	1	06/28/2022 15:30	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.64	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	397		10.0	1	06/15/2022 18:54	WG1880039

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	20.4		1.00	1	07/02/2022 05:44	WG1888429
Fluoride	0.166		0.150	1	07/02/2022 05:44	WG1888429
Sulfate	72.7		5.00	1	07/02/2022 05:44	WG1888429

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:03	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	72.9		1.00	1	06/28/2022 15:33	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.97	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	209		10.0	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	5.48		1.00	1	07/02/2022 18:25	WG1888425
Fluoride	ND		0.150	1	07/02/2022 18:25	WG1888425
Sulfate	18.4		5.00	1	07/02/2022 18:25	WG1888425

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:06	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	41.6		1.00	1	06/28/2022 15:36	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.25	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	260		10.0	1	06/13/2022 17:17	WG1878757

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	5.12		1.00	1	07/02/2022 18:40	WG1888425
Fluoride	ND		0.150	1	07/02/2022 18:40	WG1888425
Sulfate	29.7		5.00	1	07/02/2022 18:40	WG1888425

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:09	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	57.3		1.00	1	06/28/2022 15:46	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.11	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	204		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	7.62		1.00	1	07/01/2022 12:19	WG1888423
Fluoride	ND		0.150	1	07/01/2022 12:19	WG1888423
Sulfate	14.8		5.00	1	07/01/2022 12:19	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:12	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	46.1		1.00	1	06/28/2022 15:49	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.97	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	207		10.0	1	06/14/2022 13:06	WG1879064

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	5.69		1.00	1	07/02/2022 18:54	WG1888425
Fluoride	ND		0.150	1	07/02/2022 18:54	WG1888425
Sulfate	18.2		5.00	1	07/02/2022 18:54	WG1888425

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:14	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	43.9		1.00	1	06/28/2022 15:53	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.08	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	173		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	4.91		1.00	1	07/01/2022 12:47	WG1888423
Fluoride	ND		0.150	1	07/01/2022 12:47	WG1888423
Sulfate	8.70		5.00	1	07/01/2022 12:47	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:17	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	43.5		1.00	1	06/28/2022 15:56	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.91	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	291		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	7.58		1.00	1	07/01/2022 13:02	WG1888423
Fluoride	0.213		0.150	1	07/01/2022 13:02	WG1888423
Sulfate	80.1		5.00	1	07/01/2022 13:02	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.270		0.200	1	07/01/2022 11:20	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	58.3		1.00	1	06/28/2022 15:59	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.08	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	533		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	12.2		1.00	1	07/01/2022 13:16	WG1888423
Fluoride	0.419		0.150	1	07/01/2022 13:16	WG1888423
Sulfate	284	E	5.00	1	07/01/2022 13:16	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	1.23		0.200	1	07/01/2022 11:23	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	70.7		1.00	1	06/28/2022 16:02	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.72	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	645		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	12.1		1.00	1	07/01/2022 13:31	WG1888423
Fluoride	0.389		0.150	1	07/01/2022 13:31	WG1888423
Sulfate	269	E	5.00	1	07/01/2022 13:31	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.264		0.200	1	07/01/2022 11:25	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	105		1.00	1	06/28/2022 16:06	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.23	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	275		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	7.16		1.00	1	07/01/2022 14:43	WG1888423
Fluoride	0.153		0.150	1	07/01/2022 14:43	WG1888423
Sulfate	57.7		5.00	1	07/01/2022 14:43	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:34	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	56.8		1.00	1	06/28/2022 16:09	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	362		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	9.27		1.00	1	07/01/2022 14:57	WG1888423
Fluoride	ND		0.150	1	07/01/2022 14:57	WG1888423
Sulfate	54.9		5.00	1	07/01/2022 14:57	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:36	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	67.4		1.00	1	06/28/2022 16:12	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	200		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	6.14		1.00	1	07/01/2022 15:12	WG1888423
Fluoride	ND		0.150	1	07/01/2022 15:12	WG1888423
Sulfate	13.6		5.00	1	07/01/2022 15:12	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:39	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	47.2		1.00	1	06/28/2022 13:42	WG1886539

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.44	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	400		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	9.29		1.00	1	07/01/2022 15:26	WG1888423
Fluoride	ND		0.150	1	07/01/2022 15:26	WG1888423
Sulfate	97.9		5.00	1	07/01/2022 15:26	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.442		0.200	1	07/01/2022 11:42	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	72.9		1.00	1	06/28/2022 16:15	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.08	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	201		10.0	1	06/13/2022 14:24	WG1878565

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	6.25		1.00	1	07/01/2022 15:41	WG1888423
Fluoride	ND		0.150	1	07/01/2022 15:41	WG1888423
Sulfate	13.6		5.00	1	07/01/2022 15:41	WG1888423

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	07/01/2022 11:45	WG1882588

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	47.2		1.00	1	06/28/2022 16:25	WG1882558

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.09	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	393		10.0	1	06/15/2022 18:54	WG1880039

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	29.1		1.00	1	07/02/2022 05:57	WG1888429
Fluoride	ND		0.150	1	07/02/2022 05:57	WG1888429
Sulfate	103		5.00	1	07/02/2022 05:57	WG1888429

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	06/30/2022 20:00	WG1882589

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	61.6		1.00	1	06/28/2022 16:29	WG1882558

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	ND		10.0	1	06/15/2022 15:42	WG1879782

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	ND		1.00	1	07/03/2022 12:48	WG1889341
Fluoride	ND		0.150	1	07/03/2022 12:48	WG1889341
Sulfate	ND		5.00	1	07/03/2022 12:48	WG1889341

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	06/30/2022 20:03	WG1882589

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	ND		1.00	1	06/28/2022 16:32	WG1882558

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	ND		10.0	1	06/15/2022 18:05	WG1880034

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	ND		1.00	1	07/03/2022 13:00	WG1889341
Fluoride	ND		0.150	1	07/03/2022 13:00	WG1889341
Sulfate	ND		5.00	1	07/03/2022 13:00	WG1889341

Method Blank (MB)

(MB) R3803508-1 06/13/22 14:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1501792-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1501792-03 06/13/22 14:24 • (DUP) R3803508-3 06/13/22 14:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1630	1710	1	4.50		5

L1502376-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1502376-02 06/13/22 14:24 • (DUP) R3803508-4 06/13/22 14:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1690	1770	1	4.34		5

Laboratory Control Sample (LCS)

(LCS) R3803508-2 06/13/22 14:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2530	104	81.5-118	

Method Blank (MB)

(MB) R3803516-1 06/13/22 17:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1502144-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1502144-01 06/13/22 17:17 • (DUP) R3803516-3 06/13/22 17:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	513	533	1	3.82		5

L1502241-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1502241-01 06/13/22 17:17 • (DUP) R3803516-4 06/13/22 17:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	588	605	1	2.90		5

Laboratory Control Sample (LCS)

(LCS) R3803516-2 06/13/22 17:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2560	105	81.5-118	

Method Blank (MB)

(MB) R3804220-1 06/14/22 13:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1502184-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1502184-03 06/14/22 13:06 • (DUP) R3804220-3 06/14/22 13:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1100	1150	1	4.67		5

L1502292-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1502292-02 06/14/22 13:06 • (DUP) R3804220-4 06/14/22 13:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	756	817	1	7.80	J3	5

Sample Narrative:

OS: Achieving a constant weight is not possible due to sample matrix

Laboratory Control Sample (LCS)

(LCS) R3804220-2 06/14/22 13:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2430	99.6	81.5-118	

Method Blank (MB)

(MB) R3805936-1 06/15/22 15:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1503326-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1503326-01 06/15/22 15:42 • (DUP) R3805936-3 06/15/22 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1660	1730	1	4.13		5

L1503505-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1503505-01 06/15/22 15:42 • (DUP) R3805936-4 06/15/22 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1370	1470	1	6.77	J3	5

Laboratory Control Sample (LCS)

(LCS) R3805936-2 06/15/22 15:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2390	98.0	81.5-118	

Method Blank (MB)

(MB) R3805602-1 06/15/22 18:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1502298-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1502298-02 06/15/22 18:05 • (DUP) R3805602-3 06/15/22 18:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2390	2770	1	14.9	J3	5

L1502850-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1502850-03 06/15/22 18:05 • (DUP) R3805602-4 06/15/22 18:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	773	796	1	2.89		5

Laboratory Control Sample (LCS)

(LCS) R3805602-2 06/15/22 18:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2350	96.3	81.5-118	

Method Blank (MB)

(MB) R3804645-1 06/15/22 18:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1502860-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1502860-01 06/15/22 18:54 • (DUP) R3804645-3 06/15/22 18:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1730	2090	1	19.1	J3	5

L1502920-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1502920-02 06/15/22 18:54 • (DUP) R3804645-4 06/15/22 18:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	593	611	1	2.88		5

Laboratory Control Sample (LCS)

(LCS) R3804645-2 06/15/22 18:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2380	97.5	81.5-118	

Method Blank (MB)

(MB) R3810374-1 07/01/22 08:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1503316-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1503316-07 07/01/22 09:06 • (DUP) R3810374-3 07/01/22 09:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	ND	ND	1	0.000		15

L1503624-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1503624-02 07/01/22 14:48 • (DUP) R3810374-6 07/01/22 15:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	16.5	16.5	1	0.0583		15
Fluoride	0.169	0.173	1	2.69		15
Sulfate	284	283	1	0.0122	E	15

Laboratory Control Sample (LCS)

(LCS) R3810374-2 07/01/22 08:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.3	101	80.0-120	
Fluoride	8.00	8.22	103	80.0-120	
Sulfate	40.0	40.0	99.9	80.0-120	

L1503594-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503594-02 07/01/22 10:49 • (MS) R3810374-4 07/01/22 11:34 • (MSD) R3810374-5 07/01/22 11:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	11.8	63.6	63.8	104	104	1	80.0-120			0.221	15
Fluoride	5.00	ND	5.21	5.25	104	105	1	80.0-120			0.772	15
Sulfate	50.0	ND	51.2	51.3	102	103	1	80.0-120			0.314	15

L1503624-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1503624-06 07/01/22 16:03 • (MS) R3810374-7 07/01/22 16:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	141	186	91.3	1	80.0-120	E
Fluoride	5.00	0.160	5.31	103	1	80.0-120	
Sulfate	50.0	269	283	28.5	1	80.0-120	E V

Method Blank (MB)

(MB) R3811380-1 07/01/22 11:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1503624-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1503624-13 07/01/22 12:19 • (DUP) R3811380-3 07/01/22 12:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.62	7.57	1	0.665		15
Fluoride	ND	ND	1	0.760		15
Sulfate	14.8	14.8	1	0.279		15

L1503624-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1503624-23 07/01/22 15:41 • (DUP) R3811380-6 07/01/22 15:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6.25	6.11	1	2.39		15
Fluoride	ND	ND	1	3.08		15
Sulfate	13.6	13.6	1	0.194		15

Laboratory Control Sample (LCS)

(LCS) R3811380-2 07/01/22 11:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.9	102	80.0-120	
Fluoride	8.00	8.58	107	80.0-120	
Sulfate	40.0	42.0	105	80.0-120	

L1503624-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503624-18 07/01/22 13:31 • (MS) R3811380-4 07/01/22 13:45 • (MSD) R3811380-5 07/01/22 14:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	12.1	65.7	64.7	107	105	1	80.0-120			1.48	15
Fluoride	5.00	0.389	5.61	5.52	104	103	1	80.0-120			1.67	15
Sulfate	50.0	269	317	320	95.7	102	1	80.0-120	E	E	0.938	15

L1503658-38 Original Sample (OS) • Matrix Spike (MS)

(OS) L1503658-38 07/01/22 17:36 • (MS) R3811380-7 07/01/22 17:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	11.9	64.4	105	1	80.0-120	
Fluoride	5.00	0.382	5.48	102	1	80.0-120	
Sulfate	50.0	266	309	85.7	1	80.0-120	E

Method Blank (MB)

(MB) R3811634-1 07/02/22 10:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1502176-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1502176-01 07/02/22 12:24 • (DUP) R3811634-3 07/02/22 12:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6.37	6.38	1	0.232		15
Fluoride	0.315	0.313	1	0.732		15
Sulfate	17.1	17.0	1	0.258		15

L1502408-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1502408-01 07/02/22 16:15 • (DUP) R3811634-6 07/02/22 16:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	8.79	8.80	1	0.0671		15
Fluoride	ND	ND	1	3.02		15
Sulfate	5.06	5.04	1	0.533		15

Laboratory Control Sample (LCS)

(LCS) R3811634-2 07/02/22 10:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	41.0	103	80.0-120	
Fluoride	8.00	8.48	106	80.0-120	
Sulfate	40.0	41.5	104	80.0-120	

L1502176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1502176-01 07/02/22 12:24 • (MS) R3811634-4 07/02/22 12:53 • (MSD) R3811634-5 07/02/22 13:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	6.37	58.7	58.9	105	105	1	80.0-120			0.455	15
Fluoride	5.00	0.315	5.54	5.57	105	105	1	80.0-120			0.439	15
Sulfate	50.0	17.1	70.5	70.8	107	107	1	80.0-120			0.446	15

L1502408-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1502408-01 07/02/22 16:15 • (MS) R3811634-7 07/02/22 16:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	8.79	62.1	107	1	80.0-120	
Fluoride	5.00	ND	5.34	105	1	80.0-120	
Sulfate	50.0	5.06	59.2	108	1	80.0-120	

Method Blank (MB)

(MB) R3813110-1 07/01/22 23:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1502374-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1502374-02 07/02/22 00:36 • (DUP) R3813110-3 07/02/22 00:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	57.1	58.4	1	2.25		15
Fluoride	2.05	2.11	1	2.85		15
Sulfate	90.3	92.8	1	2.78		15

L1503523-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1503523-07 07/02/22 04:10 • (DUP) R3813110-6 07/02/22 04:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3.49	3.07	1	12.7		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	17.7	P1	15

Laboratory Control Sample (LCS)

(LCS) R3813110-2 07/01/22 23:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.0	100	80.0-120	
Fluoride	8.00	8.11	101	80.0-120	
Sulfate	40.0	41.4	103	80.0-120	

L1503145-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503145-02 07/02/22 02:23 • (MS) R3813110-4 07/02/22 02:36 • (MSD) R3813110-5 07/02/22 02:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	25.7	75.4	75.2	99.5	99.0	1	80.0-120			0.284	15
Fluoride	5.00	ND	5.11	5.02	102	100	1	80.0-120			1.75	15
Sulfate	50.0	132	178	182	91.3	100	1	80.0-120			2.44	15

L1506380-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1506380-05 07/02/22 06:11 • (MS) R3813110-7 07/02/22 06:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	22.5	69.1	93.2	1	80.0-120	
Fluoride	5.00	ND	4.97	97.3	1	80.0-120	
Sulfate	50.0	ND	50.9	96.2	1	80.0-120	

Method Blank (MB)

(MB) R3811476-1 07/03/22 10:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1503502-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1503502-09 07/03/22 11:33 • (DUP) R3811476-3 07/03/22 11:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10.5	10.4	1	1.52		15
Fluoride	0.257	0.229	1	11.7		15
Sulfate	ND	ND	1	0.000		15

L1503640-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1503640-21 07/03/22 15:17 • (DUP) R3811476-6 07/03/22 15:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	66.9	66.5	10	0.645		15
Fluoride	ND	ND	10	0.000		15
Sulfate	729	732	10	0.314		15

Laboratory Control Sample (LCS)

(LCS) R3811476-2 07/03/22 10:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.6	102	80.0-120	
Fluoride	8.00	8.34	104	80.0-120	
Sulfate	40.0	41.0	103	80.0-120	

L1503502-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503502-09 07/03/22 11:33 • (MS) R3811476-4 07/03/22 11:58 • (MSD) R3811476-5 07/03/22 12:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	10.5	61.3	61.8	101	103	1	80.0-120			0.886	15
Fluoride	5.00	0.257	5.26	5.29	100	101	1	80.0-120			0.518	15
Sulfate	50.0	ND	49.6	50.1	99.3	100	1	80.0-120			0.907	15

L1503640-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503640-21 07/03/22 15:17 • (MS) R3811476-7 07/03/22 16:07 • (MSD) R3811476-8 07/03/22 16:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	66.9	114	114	95.1	94.2	10	80.0-120			0.369	15
Fluoride	5.00	ND	6.11	5.98	122	120	10	80.0-120	J5		2.08	15
Sulfate	50.0	729	730	728	0.977	0.000	10	80.0-120	V	V	0.222	15

Method Blank (MB)

(MB) R3809786-1 07/01/22 02:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3809786-2 07/01/22 02:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	1.00	100	80.0-120	

L1503148-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503148-05 07/01/22 02:05 • (MS) R3809786-4 07/01/22 02:10 • (MSD) R3809786-5 07/01/22 02:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	ND	1.15	1.17	103	105	1	75.0-125			2.19	20

Method Blank (MB)

(MB) R3810113-1 07/01/22 10:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3810113-2 07/01/22 10:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.973	97.3	80.0-120	

L1503624-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503624-04 07/01/22 10:34 • (MS) R3810113-4 07/01/22 10:39 • (MSD) R3810113-5 07/01/22 10:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	ND	1.06	1.02	99.6	96.2	1	75.0-125			3.30	20

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

Method Blank (MB)

(MB) R3809770-1 06/30/22 19:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0200	0.200

Laboratory Control Sample (LCS)

(LCS) R3809770-2 06/30/22 19:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	1.01	101	80.0-120	

L1502373-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1502373-02 06/30/22 19:12 • (MS) R3809770-4 06/30/22 19:17 • (MSD) R3809770-5 06/30/22 19:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	2.62	3.50	3.49	87.3	86.1	1	75.0-125			0.350	20

QUALITY CONTROL SUMMARY

L1503624-01,02,03,04,05,06

Method Blank (MB)

(MB) R3808196-1 06/27/22 23:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0936	1.00

Laboratory Control Sample (LCS)

(LCS) R3808196-2 06/27/22 23:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	4.58	91.7	80.0-120	

L1503203-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503203-01 06/27/22 23:57 • (MS) R3808196-4 06/28/22 00:04 • (MSD) R3808196-5 06/28/22 00:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	5.00	34.2	39.0	38.7	95.5	89.9	1	75.0-125			0.720	20

Method Blank (MB)

(MB) R3808596-1 06/28/22 15:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0936	1.00

Laboratory Control Sample (LCS)

(LCS) R3808596-2 06/28/22 15:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.05	101	80.0-120	

L1503624-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1503624-07 06/28/22 15:12 • (MS) R3808596-4 06/28/22 15:19 • (MSD) R3808596-5 06/28/22 15:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	5.00	102	106	105	89.3	79.5	1	75.0-125			0.462	20

Method Blank (MB)

(MB) R3808377-1 06/28/22 13:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0936	1.00

Laboratory Control Sample (LCS)

(LCS) R3808377-2 06/28/22 13:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	4.88	97.5	80.0-120	

L1506071-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1506071-07 06/28/22 13:13 • (MS) R3808377-4 06/28/22 13:20 • (MSD) R3808377-5 06/28/22 13:23

Analyte	Spike Amount mg/l	Original Result	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	5.00		104	104	63.8	59.6	1	75.0-125	V	V	0.199	20

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

GLOSSARY OF TERMS

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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

COC 1

GBMc & Associates - Bryant, AR

219 Brown Lane
Bryant, AR 72022

Billing Information:
Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Report to: **Jonathan Brown**

Email To: **jbrown@gbmcassoc.com;**

Project Description: Entergy ISES

City/State Collected: **Newark, AR**

Please Circle: PT MT (CT) ET

Phone: **501-847-7077**

Client Project # **1145-21-081**

Lab Project # **GBMCBAR-ENTERGYISES**

Collected by (print): **Danielle Braund**

Site/Facility ID # **ISES**

P.O. #

Collected by (signature): Danielle Braund

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

Pace Analytical® National Center for Testing & Innovation

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

SDG # L503624
A204

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4, TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-1R	Grab	GW	24.9	6/7/22	1600	2	X	X	7.03	-01
MW-2	Grab	GW	23.5	6/7/22	1025	2	X	X	7.83	-02
MW-3	Grab	GW	24.5	6/8/22	1040	2	X	X	7.51	-03
MW-6	Grab	GW	22.1	6/8/22	0920	2	X	X	7.09	-04
MW-7	Grab	GW	22.1	6/7/22	1510	2	X	X	8.33	-05
MW-8	Grab	GW	23.1	6/8/22	1350	2	X	X	7.34	-06
MW-9	Grab	GW	21.9	6/8/22	1312	2	X	X	7.31	-07
MW-10	Grab	GW	24.8	6/8/22	1200	2	X	X	7.52	-08
MW-11	Grab	GW	24.3	6/7/22	1800	2	X	X	7.73	-09
MW-13	Grab	GW	19.2	6/8/22	1433	2	X	X	7.64	-10

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

Remarks:
Final pH in remarks

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
Danielle Braund	6/9/22	1300		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 52
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/10/22 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 2 of 3

GBMc & Associates - Bryant, AR

219 Brown Lane
Bryant, AR 72022

Billing Information:
Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Analysis / Container / Preservative

Pace Analytical®
National Center for Testing & Innovation

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

Report to: **Jonathan Brown**

Email To: **jbrown@gbmcassoc.com;**

Project Description: Entergy ISES

City/State Collected: **Newark, AR**

Please Circle: PT MT (CT) ET

Phone: **501-847-7077**

Client Project # **1145-21-081**

Lab Project # **GBMCBAR-ENTERGYISES**

SDG # L503624

Table #

Collected by (print): **Danielle Braund**

Site/Facility ID # **ISES**

P.O. #

Acctnum:

Template:

Prelogin:

PM:

PB:

Collected by (signature): Danielle Braund

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4, TDS 250mlHDPE-NoPres								Remarks	Sample # (lab only)
MW-17	Grab	GW	19.3	6/7/22	0827	2	X	X								6.97	-11
MW-18	Grab	GW	21.2	6/7/22	0910	2	X	X								7.25	-12
RP-1	Grab	GW	20.8	6/6/22	1812	2	X	X								7.11	-13
RP-2	Grab	GW	19.3	6/7/22	0827	2	X	X								6.97	-14
RP-3	Grab	GW	16.9	6/6/22	1735	2	X	X								7.08	-15
RP-4	Grab	GW	21.2	6/6/22	1300	2	X	X								6.91	-16
RP-5	Grab	GW	24.6	6/6/22	1222	2	X	X								7.08	-17
RP-6	Grab	GW	24.0	6/6/22	1327	2	X	X								7.72	-18
RP-7	Grab	GW	23.8	6/6/22	1602	2	X	X								7.23	-19
RP-8	Grab	GW	23.1	6/6/22	1458	2	X	X								7.00	-20

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

Remarks:
Final pH in remarks

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Danielle Braund	6/9/22	1300		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 52
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/10/22 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

GBMc & Associates - Bryant, AR

219 Brown Lane
Bryant, AR 72022

Billing Information:
Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

Pace Analytical®
National Center for Testing & Innovation

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

Report to: **Jonathan Brown**

Email To: **jbrown@gbmcassoc.com;**

Project Description: Entergy ISES

City/State Collected: **Newark, AR**

Please Circle: PT MT (CT) ET

Phone: **501-847-7077**

Client Project # **1145-21-081**

Lab Project # **GBMCBAR-ENTERGYISES**

SDG # L1503624

Table #

Collected by (print): **Danielle Braund**

Site/Facility ID # **ISES**

P.O. #

Acctnum:

Template:

Prelogin:

PM:

PB:

Collected by (signature): Danielle Braund

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4, TDS 250mlHDPE-NoPres								Remarks	Sample # (lab only)
RP-9	Grab	GW	20.7	6/6/22	1420	2	X	X								7.08	-21
RP-10	Grab	GW	25.6	6/6/22	1340	2	X	X								7.44	-22
Duplicate 2 RP-9	Grab	GW	20.7	6/6/22	1420	2	X	X								7.08	-23
Duplicate 4 MW-6	Grab	GW	22.1	6/8/22	0920	2	X	X								7.09	-24
Field Blank 2				6/8/22	1205	2	X	X								DI H2O	-25

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

Remarks:
Final pH in remarks

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Danielle Braund	6/9/22	1300		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 52
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/10/22 Time: 900
				Hold: Condition: NCF / OK

U503624

Tracking Numbers	Temperature
5719 6189 6928	JAA6 3.0 to=3.0
5719 6189 7306	DRAT 2.6 to=2.6
5719 6189 6880	DRAT 3.1 to=3.1
5719 6189 6939	DRAT 3.7 to=3.7
5719 ~~6189~~ 6189 6917	DRAT 2.5 to=2.5
5719 ~~6189~~ 6906	DRAT 2.8 to=2.8
5719 6189 6891	DRAT 2.1 to=2.1

ANALYTICAL REPORT

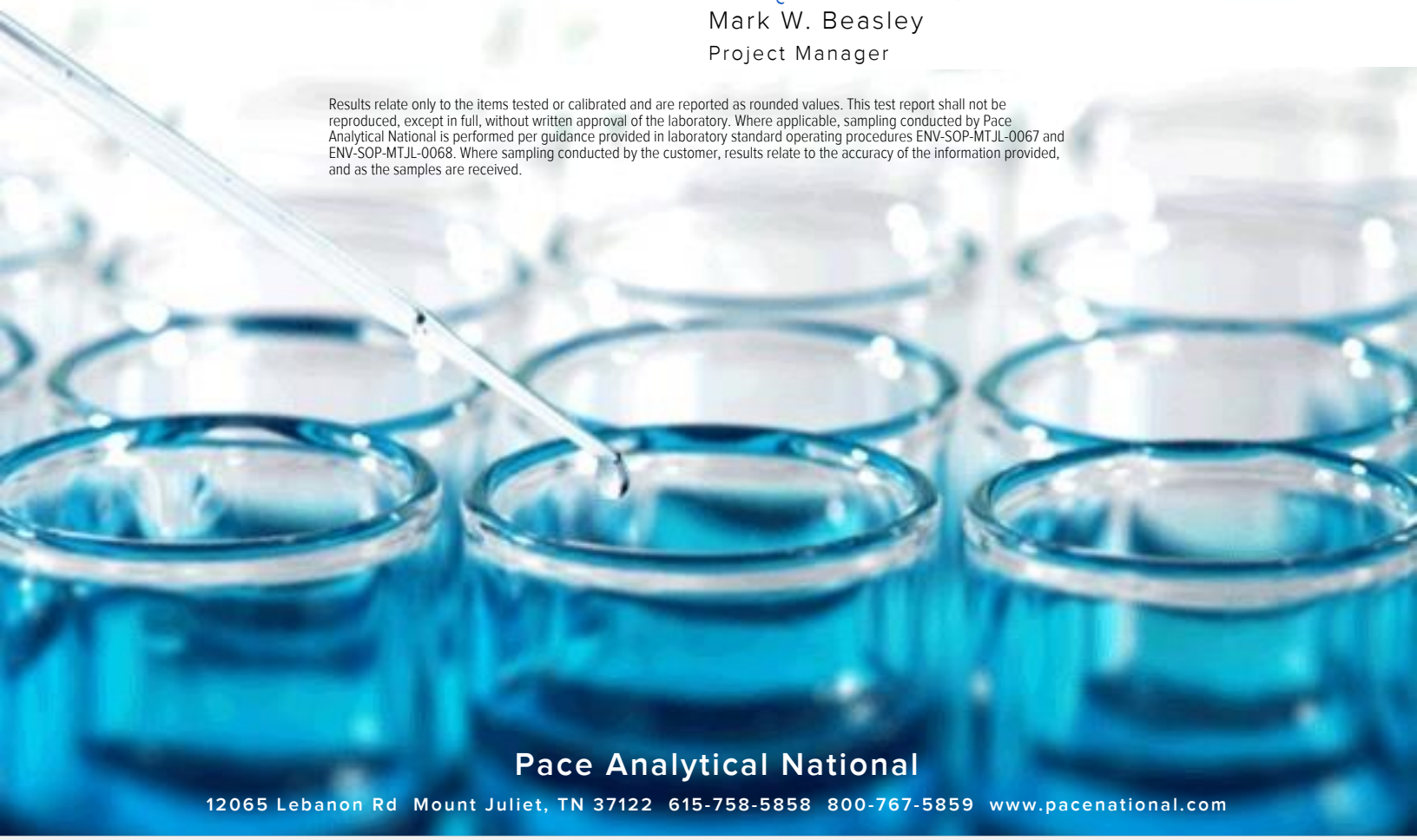
December 16, 2022

GBMc & Associates - Bryant, AR

Sample Delivery Group:	L1563700
Samples Received:	12/03/2022
Project Number:	1145-21-081
Description:	Entergy ISES
Site:	ISES
Report To:	Jonathan Brown 219 Brown Lane Bryant, AR 72022

Entire Report Reviewed By:

Mark W. Beasley
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1 L1563700-01 GW

Collected by: Danielle Braund | Collected date/time: 11/30/22 13:51 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969770	1	12/06/22 08:13	12/06/22 08:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 16:07	12/06/22 16:07	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1971533	5	12/09/22 05:32	12/09/22 05:32	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971330	1	12/14/22 11:06	12/16/22 08:48	ABL	Mt. Juliet, TN

MW-2 L1563700-02 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 16:54 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970642	1	12/07/22 13:10	12/07/22 16:44	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 16:22	12/06/22 16:22	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1971533	5	12/09/22 05:46	12/09/22 05:46	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:28	ABL	Mt. Juliet, TN

MW-3 L1563700-03 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 18:02 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970658	1	12/07/22 13:07	12/07/22 16:49	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 16:37	12/06/22 16:37	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:17	ABL	Mt. Juliet, TN

MW-6 L1563700-04 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 15:02 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970642	1	12/07/22 13:10	12/07/22 16:44	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 16:53	12/06/22 16:53	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:30	ABL	Mt. Juliet, TN

MW-7 L1563700-05 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 14:05 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970658	1	12/07/22 13:07	12/07/22 16:49	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 17:39	12/06/22 17:39	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:33	ABL	Mt. Juliet, TN

MW-8 L1563700-06 GW

Collected by: Danielle Braund | Collected date/time: 11/29/22 16:02 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969449	1	12/05/22 12:52	12/05/22 15:50	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 18:25	12/06/22 18:25	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1971533	5	12/09/22 06:15	12/09/22 06:15	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:36	ABL	Mt. Juliet, TN

MW-10 L1563700-07 GW

Collected by: Danielle Braund | Collected date/time: 11/30/22 15:10 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1969765	1	12/06/22 08:40	12/06/22 09:36	DTM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 18:41	12/06/22 18:41	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:44	ABL	Mt. Juliet, TN

MW-11 L1563700-08 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 13:17 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970658	1	12/07/22 13:07	12/07/22 16:49	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 18:56	12/06/22 18:56	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:47	ABL	Mt. Juliet, TN

CCR FIELD BLANK 1 L1563700-09 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 14:40 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970658	1	12/07/22 13:07	12/07/22 16:49	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 19:12	12/06/22 19:12	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:49	ABL	Mt. Juliet, TN

CCR DUPLICATE MW-11 L1563700-10 GW

Collected by: Danielle Braund | Collected date/time: 12/01/22 13:17 | Received date/time: 12/03/22 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970658	1	12/07/22 13:07	12/07/22 16:49	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969866	1	12/06/22 19:27	12/06/22 19:27	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:52	ABL	Mt. Juliet, TN

MW-9 L1563700-11 GW

Collected by: Danielle Braund | Collected date/time: 11/30/22 10:20 | Received date/time: 12/05/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1970642	1	12/07/22 13:10	12/07/22 16:44	AS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1969959	1	12/06/22 16:28	12/06/22 16:28	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1971331	1	12/14/22 19:22	12/16/22 01:55	ABL	Mt. Juliet, TN

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.

Mark W. Beasley
Project Manager

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.89	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	918		20.0	1	12/06/2022 08:38	WG1969770

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	177		1.00	1	12/06/2022 16:07	WG1969866
Fluoride	0.195		0.150	1	12/06/2022 16:07	WG1969866
Sulfate	281		25.0	5	12/09/2022 05:32	WG1971533

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 08:48	WG1971330
Calcium	128		1.00	1	12/16/2022 08:48	WG1971330

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.32	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	657		13.3	1	12/07/2022 16:44	WG1970642

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	9.37		1.00	1	12/06/2022 16:22	WG1969866
Fluoride	0.222		0.150	1	12/06/2022 16:22	WG1969866
Sulfate	238		25.0	5	12/09/2022 05:46	WG1971533

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:28	WG1971331
Calcium	107		1.00	1	12/16/2022 01:28	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.81	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	443		10.0	1	12/07/2022 16:49	WG1970658

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	46.8		1.00	1	12/06/2022 16:37	WG1969866
Fluoride	0.164		0.150	1	12/06/2022 16:37	WG1969866
Sulfate	83.3		5.00	1	12/06/2022 16:37	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:17	WG1971331
Calcium	61.9	V	1.00	1	12/16/2022 01:17	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.75	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	416		10.0	1	12/07/2022 16:44	WG1970642

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	31.5		1.00	1	12/06/2022 16:53	WG1969866
Fluoride	0.153		0.150	1	12/06/2022 16:53	WG1969866
Sulfate	116		5.00	1	12/06/2022 16:53	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:30	WG1971331
Calcium	62.9		1.00	1	12/16/2022 01:30	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
Res. Chlorine (On Site)	7.64	mg/l

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	495		10.0	1	12/07/2022 16:49	WG1970658

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	18.3		1.00	1	12/06/2022 17:39	WG1969866
Fluoride	0.660		0.150	1	12/06/2022 17:39	WG1969866
Sulfate	49.7		5.00	1	12/06/2022 17:39	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:33	WG1971331
Calcium	41.3		1.00	1	12/16/2022 01:33	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7.03	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	764		13.3	1	12/05/2022 15:50	WG1969449

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	117		1.00	1	12/06/2022 18:25	WG1969866
Fluoride	0.209		0.150	1	12/06/2022 18:25	WG1969866
Sulfate	215		25.0	5	12/09/2022 06:15	WG1971533

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.211		0.200	1	12/16/2022 01:36	WG1971331
Calcium	104		1.00	1	12/16/2022 01:36	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	6.75	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	458		10.0	1	12/06/2022 09:36	WG1969765

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	61.0		1.00	1	12/06/2022 18:41	WG1969866
Fluoride	0.183		0.150	1	12/06/2022 18:41	WG1969866
Sulfate	83.4		5.00	1	12/06/2022 18:41	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:44	WG1971331
Calcium	65.7		1.00	1	12/16/2022 01:44	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	442		10.0	1	12/07/2022 16:49	WG1970658

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	45.1		1.00	1	12/06/2022 18:56	WG1969866
Fluoride	0.241		0.150	1	12/06/2022 18:56	WG1969866
Sulfate	110		5.00	1	12/06/2022 18:56	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.381		0.200	1	12/16/2022 01:47	WG1971331
Calcium	68.7		1.00	1	12/16/2022 01:47	WG1971331

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	ND		10.0	1	12/07/2022 16:49	WG1970658

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	ND		1.00	1	12/06/2022 19:12	WG1969866
Fluoride	ND		0.150	1	12/06/2022 19:12	WG1969866
Sulfate	ND		5.00	1	12/06/2022 19:12	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/16/2022 01:49	WG1971331
Calcium	ND		1.00	1	12/16/2022 01:49	WG1971331

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (On Site)	7	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	450		10.0	1	12/07/2022 16:49	WG1970658

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	43.7		1.00	1	12/06/2022 19:27	WG1969866
Fluoride	0.220		0.150	1	12/06/2022 19:27	WG1969866
Sulfate	103		5.00	1	12/06/2022 19:27	WG1969866

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.379		0.200	1	12/16/2022 01:52	WG1971331
Calcium	69.6		1.00	1	12/16/2022 01:52	WG1971331

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	795		13.3	1	12/07/2022 16:44	WG1970642

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	34.6		1.00	1	12/06/2022 16:28	WG1969959
Fluoride	ND		0.150	1	12/06/2022 16:28	WG1969959
Sulfate	193		5.00	1	12/06/2022 16:28	WG1969959

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Boron	0.728		0.200	1	12/16/2022 01:55	WG1971331
Calcium	101		1.00	1	12/16/2022 01:55	WG1971331

Method Blank (MB)

(MB) R3869475-1 12/05/22 15:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1563700-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1563700-06 12/05/22 15:50 • (DUP) R3869475-3 12/05/22 15:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	764	779	1	1.90		5

L1563709-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1563709-06 12/05/22 15:50 • (DUP) R3869475-4 12/05/22 15:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	743	789	1	6.09	J3	5

Laboratory Control Sample (LCS)

(LCS) R3869475-2 12/05/22 15:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8370	95.1	77.3-123	

Method Blank (MB)

(MB) R3869901-1 12/06/22 09:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1563044-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1563044-05 12/06/22 09:36 • (DUP) R3869901-3 12/06/22 09:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1010	1010	1	0.198		5

L1563709-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1563709-01 12/06/22 09:36 • (DUP) R3869901-4 12/06/22 09:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	938	974	1	3.77		5

Laboratory Control Sample (LCS)

(LCS) R3869901-2 12/06/22 09:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8510	96.7	77.3-123	

Method Blank (MB)

(MB) R3869822-1 12/06/22 08:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1562710-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1562710-01 12/06/22 08:38 • (DUP) R3869822-3 12/06/22 08:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1220	1220	1	0.164		5

Laboratory Control Sample (LCS)

(LCS) R3869822-2 12/06/22 08:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7710	87.6	77.3-123	

Method Blank (MB)

(MB) R3869961-1 12/07/22 16:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U	J	10.0	10.0

L1563595-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1563595-01 12/07/22 16:44 • (DUP) R3869961-3 12/07/22 16:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	293	312	1	6.28	J3	5

L1563595-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1563595-02 12/07/22 16:44 • (DUP) R3869961-4 12/07/22 16:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	282	295	1	4.51		5

Laboratory Control Sample (LCS)

(LCS) R3869961-2 12/07/22 16:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8520	96.8	77.3-123	

QUALITY CONTROL SUMMARY

L1563700-03,05,08,09,10

Method Blank (MB)

(MB) R3869953-1 12/07/22 16:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1563667-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1563667-02 12/07/22 16:49 • (DUP) R3869953-3 12/07/22 16:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	272	282	1	3.61		5

L1563667-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1563667-03 12/07/22 16:49 • (DUP) R3869953-4 12/07/22 16:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	275	284	1	3.22		5

Laboratory Control Sample (LCS)

(LCS) R3869953-2 12/07/22 16:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8510	96.7	77.3-123	

Method Blank (MB)

(MB) R3869608-1 12/06/22 10:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1563693-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1563693-01 12/06/22 12:16 • (DUP) R3869608-3 12/06/22 12:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	175	177	1	1.25		15
Fluoride	0.194	0.212	1	8.97		15

L1563700-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1563700-05 12/06/22 17:39 • (DUP) R3869608-6 12/06/22 17:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	18.3	18.4	1	0.496		15
Fluoride	0.660	0.673	1	1.98		15
Sulfate	49.7	49.5	1	0.415		15

Laboratory Control Sample (LCS)

(LCS) R3869608-2 12/06/22 10:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.3	98.2	80.0-120	
Fluoride	8.00	8.35	104	80.0-120	
Sulfate	40.0	39.4	98.5	80.0-120	

L1563693-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563693-01 12/06/22 12:16 • (MS) R3869608-4 12/06/22 12:46 • (MSD) R3869608-5 12/06/22 13:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	175	221	225	91.4	99.5	1	80.0-120	E	E	1.83	15
Fluoride	5.00	0.194	5.21	5.13	100	98.7	1	80.0-120			1.57	15

L1563693-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563693-01 12/06/22 12:16 • (MS) R3869608-4 12/06/22 12:46 • (MSD) R3869608-5 12/06/22 13:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50.0	308	349	342	82.5	68.4	1	80.0-120	E	E V	2.04	15

L1563700-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1563700-05 12/06/22 17:39 • (MS) R3869608-7 12/06/22 18:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	18.3	70.2	104	1	80.0-120	
Fluoride	5.00	0.660	6.03	107	1	80.0-120	
Sulfate	50.0	49.7	102	106	1	80.0-120	

Method Blank (MB)

(MB) R3869078-1 12/06/22 10:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1563872-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1563872-01 12/06/22 18:21 • (DUP) R3869078-3 12/06/22 18:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	ND	ND	1	17.1	P1	15
Fluoride	ND	ND	1	20.5	P1	15
Sulfate	ND	ND	1	0.260		15

L1564151-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1564151-07 12/06/22 21:15 • (DUP) R3869078-6 12/06/22 21:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3.88	3.77	1	2.90		15
Fluoride	ND	ND	1	10.9		15
Sulfate	24.4	24.4	1	0.00164		15

Laboratory Control Sample (LCS)

(LCS) R3869078-2 12/06/22 10:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	41.1	103	80.0-120	
Fluoride	8.00	8.54	107	80.0-120	
Sulfate	40.0	41.4	103	80.0-120	

L1563872-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563872-01 12/06/22 18:21 • (MS) R3869078-4 12/06/22 18:45 • (MSD) R3869078-5 12/06/22 18:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	ND	52.7	53.9	104	107	1	80.0-120			2.36	15
Fluoride	5.00	ND	5.49	5.64	108	111	1	80.0-120			2.63	15
Sulfate	50.0	ND	52.8	54.2	104	106	1	80.0-120			2.51	15

L1564151-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1564151-07 12/06/22 21:15 • (MS) R3869078-7 12/06/22 21:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	3.88	55.6	104	1	80.0-120	
Fluoride	5.00	ND	5.48	107	1	80.0-120	
Sulfate	50.0	24.4	74.9	101	1	80.0-120	

Method Blank (MB)

(MB) R3870411-1 12/09/22 04:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1563700-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1563700-02 12/09/22 05:46 • (DUP) R3870411-3 12/09/22 06:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	238	242	5	1.47		15

L1564414-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1564414-01 12/09/22 11:33 • (DUP) R3870411-6 12/09/22 11:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	7.55	7.51	1	0.574		15

Laboratory Control Sample (LCS)

(LCS) R3870411-2 12/09/22 04:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.7	102	80.0-120	

L1564250-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1564250-01 12/09/22 07:13 • (MS) R3870411-4 12/09/22 07:27 • (MSD) R3870411-5 12/09/22 07:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	50.0	681	663	664	0.000	0.000	10	80.0-120	V	V	0.140	15

L1564414-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1564414-01 12/09/22 11:33 • (MS) R3870411-7 12/09/22 12:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50.0	7.55	57.5	99.8	1	80.0-120	

Method Blank (MB)

(MB) R3872667-1 12/16/22 07:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0200	0.200
Calcium	U		0.0793	1.00

Laboratory Control Sample (LCS)

(LCS) R3872667-2 12/16/22 07:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.986	98.6	80.0-120	
Calcium	10.0	9.71	97.1	80.0-120	

L1563653-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563653-08 12/16/22 07:43 • (MS) R3872667-4 12/16/22 07:48 • (MSD) R3872667-5 12/16/22 07:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.251	1.24	1.22	98.7	97.3	1	75.0-125			1.13	20
Calcium	10.0	69.2	76.8	76.3	76.1	71.6	1	75.0-125		V	0.582	20

Method Blank (MB)

(MB) R3872485-1 12/16/22 01:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0200	0.200
Calcium	U		0.0793	1.00

Laboratory Control Sample (LCS)

(LCS) R3872485-2 12/16/22 01:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.929	92.9	80.0-120	
Calcium	10.0	9.36	93.6	80.0-120	

L1563700-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1563700-03 12/16/22 01:17 • (MS) R3872485-4 12/16/22 01:22 • (MSD) R3872485-5 12/16/22 01:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	ND	1.03	1.03	92.0	92.2	1	75.0-125			0.161	20
Calcium	10.0	61.9	69.3	69.3	74.3	74.6	1	75.0-125	V	V	0.0528	20

GLOSSARY OF TERMS

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.
J3	The associated batch QC was outside the established quality control range for precision.
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.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

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

GBMc & Associates

219 Brown Lane
Bryant, AR 72022

Billing Information:
Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

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

Report to: **Jonathan Brown**

Email To: **jbrown@gbmcassoc.com;**

Project Description: **Entergy ISES**

City/State Collected: **Newark, AR**

Please Circle: PT MT CT ET

Phone: **501-847-7077**

Client Project # **1145-21-081**

Lab Project # **GBMCBAR-ENTERGYISES**

SDG # L1563795

C076

Collected by (print): **Danielle Braund**

Site/Facility ID # **ISES**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Acctnum: **GMBCBAR**
Template: **T194012**
Prelogin: **p936519**
PM: **Mark W. Beasley**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	B, Ca 205mlHDPE-HNO3	Cl, F, SO4, TDS 205mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-1	Grab	GW	33.5	11/30/22	1351	2	X	X	6.89	-01
MW-2	Grab	GW	32.0	12/1/22	1654	2	X	X	7.32	-02
MW-3	Grab	GW	33.2	12/1/22	1802	2	X	X	6.81	-03
MW-6	Grab	GW	30.85	12/1/22	1502	2	X	X	6.75	-04
MW-7	Grab	GW	30.6	12/1/22	1405	2	X	X	7.64	-05
MW-8	Grab	GW	31.2	11/29/22	1602	2	X	X	7.03	-06
MW-9	Grab	GW	30.65	11/30/22	1020	2	X	X	6.78	
MW-10	Grab	GW	33.5	11/30/22	1510	2	X	X	6.75	-07
MW-11	Grab	GW	34.3	12/1/22	1317	2	X	X	7.00	-08
CCR FIELD BLANK 1			-	12/1/22	1440	2	X	X	DI H2O	-09

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

Remarks:
Final pH in remarks **(internal COC1)**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	12/2/22	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: °C Bottles Received: 20 ~~18~~

Date: 12.03.22 Time: 0915

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

GBMc & Associates

219 Brown Lane
Bryant, AR 72022

Billing Information:
Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Report to: **Jonathan Brown**

Email To: **jbrown@gbmcassoc.com;**

Project Description: Entergy ISES

City/State Collected: **Newark, AR**

Please Circle: PT MT CT ET

Phone: **501-847-7077**

Client Project # **1145-21-081**

Lab Project # **GBMCBAR-ENTERGYISES**

Collected by (print): **Danielle Braund**

Site/Facility ID # **ISES**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	B, Ca 205mlHDPE-HNO3	Cl, F, SO4, TDS 205mlHDPE-NoPres	Remarks	Sample # (lab only)
CCR DUPLICATE MW-11	Grab	GW	34.3	12/1/22	1317	2	X	X	7.00	-11
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		
						2	X	X		

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

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

SDG # L1563693

Table # L1563700

Acctnum: **GMBCBAR**

Template: **T194012**

Prelogin: **p936519**

PM: **Mark W. Beasley**

PB:

Shipped Via:

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

Remarks:
Final pH in remarks **(internal COC1)**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	12/2/22	1500			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 20	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12.03.22 Time: 0915	Hold: Condition: NCF / OK

L1563700
~~L1563693~~ HM

Tracking Numbers	Temperature
6126 6537 7518	GBA6 0.2+0= 0.2
6126 6537 7529	GBA6 0.2+0= 0.2
6126 6537 7507	GBA6 3.1+0= 3.1
6126 6537 7437	GBA6 0.8+0= 0.8
6126 6537 7180	GBA6 3.4+0= 3.4
6126 6537 7426	GBA6 1.6+0= 1.6
6126 6537 7190	GBA6 2.5+0= 2.5

12/3-NCF-L1563693 GBMCBAR

R5

Time estimate: oh **Time spent:** oh **Grouping date:** 6 December 2022

Members

HM Hailey Melson (responsible) MB Mark Beasley

~~Due on *7 December 2022 8:00 AM* for target *Done*~~ (Was done by Hailey Melson at 6 December 2022 11:10 AM)

- [x] Login Clarification needed
- [ ] Chain of custody is incomplete
- [ ] Please specify Metals requested
- [ ] Please specify TCLP requested
- [ ] Received additional samples not listed on COC
- [ ] Sample IDs on containers do not match IDs on COC
- [ ] Client did not "X" analysis
- [ ] Chain of Custody is missing
- [ ] If no COC: Received by:_____
- [ ] If no COC: Date/Time:_____
- [ ] If no COC: Temp./Cont.Rec./pH:_____
- [ ] If no COC: Carrier:_____
- [ ] If no COC: Tracking #:_____
- [ ] Client informed by call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

Comments

Hailey Melson *3 December 2022 3:29 PM*

Missing ID: MW-9

Hailey Melson *3 December 2022 3:38 PM*

Also missing MW-9 for L1563700

Hailey Melson *6 December 2022 11:10 AM*

Samples received 12/5 and added to SDGs on 12/6