Entergy Arkansas, LLC
White Bluff Steam Electric Station
Landfill Cells 1-4

2025 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:

700 Highlander Blvd
Suite 210
Arlington, TX 76015

January 31, 2026

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LIST OF APPENDICES

EXECUTIVE SUMMARY

Entergy Arkansas, LLC (EAL), operates a coal ash disposal landfill (Landfill) for the disposal of coal combustion residuals (CCR) at the White Bluff Steam Electric Station (Plant) located near Redfield, Arkansas. The Landfill receives CCR generated from the combustion of coal at the Plant. Management of the 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 2025 for the Landfill CCR unit groundwater monitoring well network per 40 CFR §257.94. The statistical analyses completed for the second semi-annual 2024, first semi-annual 2025 and second semi-annual 2025 sampling event analytical data identified potential statistically significant increases (SSIs); therefore, alternate source demonstrations (ASDs) were performed for each semi-annual detection monitoring event and are attached to this report. Each of the ASDs performed were successful which resulted in the Landfill continuing to operate under the detection monitoring program. The Landfill CCR unit operated under the detection monitoring program (40 CFR § 257.94) during the duration of 2025.

1. INTRODUCTION

Entergy Arkansas, LLC (EAL), operates the Landfill for the disposal of CCRs at the Plant located near Redfield, Arkansas (Lat: 34.421658 / Long: -92.139455). 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 by the CCR Rule. EAL 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, EAL 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 23 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 2025

EAL did not install any new wells or decommission any existing wells in the certified groundwater monitoring system during 2025.

4. GROUNDWATER MONITORING DATA

In accordance with §257.90(e)(3), all monitoring data obtained under §257.90 through §257.98 during 2025 are provided in Appendix B and C. Monitoring Data includes:

- Groundwater level measurements and groundwater flow characteristics;
- Summary of the number of groundwater samples that were collected for analysis for each background and downgradient well;
- Dates the samples were collected;
- Whether the sample was collected as part of detection or assessment monitoring; and
- Summary of CCR Rule constituent results.

5. STATUS SUMMARY OF THE 2025 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 2025 is provided in the list below:

- In accordance with §257.94(b), semiannual detection monitoring was performed during the first half (April) and second half (September) of 2025 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 EAL's CCR Rule Compliance Data and Information website.

- In 2025, EAL completed a successful alternate source demonstration (ASD) per §257.94(e)(2) in response to potential statistically significant increases (SSIs) identified during the statistical evaluation of the data generated from the second half 2024 semi-annual detection monitoring event. As required by §257.94(e), a copy of the ASD is included in Appendix E. Based on the successful evaluation conducted and results presented in the ASD, EAL continued with detection monitoring in accordance with §257.94.

- The first half 2025 semi-annual detection monitoring sampling was performed during April 2025. Based on statistical evaluation of the data potential SSIs were identified for boron, calcium, sulfate and total dissolved solids (TDS).

- EAL completed a successful ASD per §257.94(e)(2) for the potential SSIs identified during the first half 2025 semi-annual detection monitoring event. As required by §257.94(e), a copy of the ASD is included in Appendix E. EAL continued with detection monitoring in accordance with §257.94.

- The second half 2025 semi-annual detection monitoring sampling was performed during September 2025. Based on statistical evaluation of the data potential SSIs were identified for boron, calcium, sulfate and TDS.

- EAL completed a successful ASD per §257.94(e)(2) for the potential SSIs identified during the second half 2025 semi-annual detection monitoring event. As required by §257.94(e)(2), a copy of the ASD is included in

Appendix E. EAL continued with detection monitoring in accordance with §257.94.

- No problems were encountered during 2025 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 for the duration of 2025.

6. PROJECTED ACTIVITIES FOR 2026

Planned activities for the program during 2026 are listed below:

- Semi-annual detection monitoring is planned for May and September 2026.
- Statistical evaluations of the first-half 2026 and second-half 2026 detection monitoring sampling data will be performed during 2026 to determine if any SSIs are identified.

7. CERTIFICATION

I hereby certify that this Annual Groundwater Monitoring Report for the Entergy White Bluff Plant Coal Ash Disposal Landfill CCR Unit has been prepared in accordance with the requirements of Title 40 CFR §257.94(e) 2 of the Federal CCR Rule. This report is accurate to the best of my knowledge and has been developed using sound engineering practices, including the consideration of applicable industry standards and the requirements of Title 40 CFR §257.94(e) 2.

Name: Wenbo Xie P.E.

Expiration Date: 12/31/2026

Company: TRC Environmental Corporation

Date: 01/31/2026

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 24052
WENBO XIE

APPENDIX A
SITE MAP

LEGEND

- STRATUM I MW
- STRATUM III BACKROUND WELL
- STRATUM III MW
- STRATUM III PIEZOMETER
- APPROX. EXTENT OF CLOSED CADL
- APPROX. EXTENT OF ACTIVE CADL

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
(AERIAL DATE: 10/21/2021)
DATA SOURCES: TRC

N

1:4,800
1" = 400'
0 400 800 FEET

PROJECT:
ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:
CADL EXTENT AND CCR GROUNDWATER MONITORING LOCATIONS

DRAWN BY:	D. STITCHER	PROJ. NO.:	635879
CHECKED BY:	W. XIE	**FIGURE 1**	
APPROVED BY:	E. GAINES		
DATE:	NOVEMBER 2025		

TRC

700 HIGHLANDER BLVD.
SUITE 210
ARLINGTON, TX 76015
T: (817) 522-1000

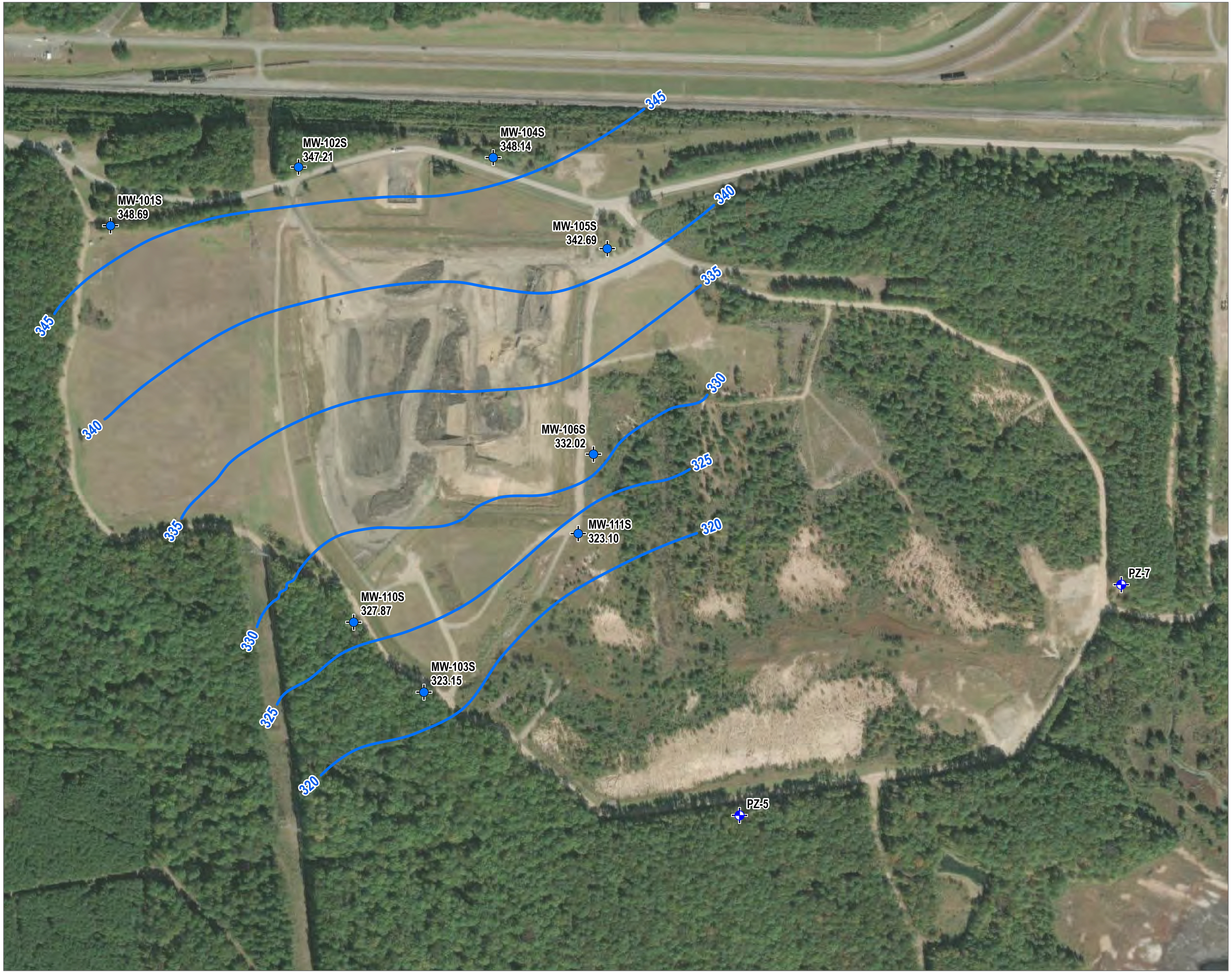
FILE: November_2025_Groundwater_Contour_Maps.aprx

tem: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet; Map Rotation: 0
-- Saved By: DSTITCHER on 11/11/2025, 08:56:37 AM; File Path: T:\arcgispro\1-PROJECTS\ENTERGY\635879_Groundwater_Contour_Maps\2-APRX\November_2025_Groundwater_Contour_Maps.aprx; Layout Name: Figure 1 Well Location Map

APPENDIX B
GROUNDWATER LEVEL DATA

Water Level Measurements 2025

Well ID	TOC Elevation (ft NAVD88)	April 22, 2025		September 15, 2025	
		Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft NAVD88)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft NAVD88)
101S	385.76	37.07	348.69	38.36	347.40
102S	381.17	33.96	347.21	34.06	347.11
103S	339.34	16.19	323.15	20.46	318.88
104S	377.08	28.94	348.14	31.51	345.57
105S	370.54	27.85	342.69	28.27	342.27
106S	341.03	9.01	332.02	14.59	326.44
110S	337.36	9.49	327.87	15.45	321.91
111S	336.53	13.43	323.10	14.74	321.79
101D	387.06	96.68	290.38	96.92	290.14
102D	381.40	91.12	290.28	91.51	289.89
103D	339.18	41.40	297.78	42.20	296.98
104D	376.76	86.47	290.29	86.74	290.02
105D	370.04	79.75	290.29	80.03	290.01
106D	339.39	42.33	297.06	42.77	296.62
107D	322.26	21.08	301.18	20.39	301.87
108D	341.61	45.05	296.56	45.78	295.83
109D	371.31	78.87	292.44	79.18	292.13
110D	338.26	33.58	304.68	34.58	303.68
112D	378.29	87.57	290.72	87.80	290.49
113D	305.46	9.62	295.84	10.57	294.89
114D	350.22	60.24	289.98	60.49	289.73
115D	361.27	74.30	286.97	75.22	286.05
118D	322.81	40.81	282.00	41.03	281.78



LEGEND

- STRATUM I MW
- STRATUM III PIEZOMETER
- GROUNDWATER CONTOUR

EMMA GAINES
No. 3051
1/31/2026

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
(AERIAL DATE: 10/21/2021)
DATA SOURCES: TRC

N

1:4,800
1" = 400'
0 400 800 FEET

PROJECT:
ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:
STRATUM 1 POTENTIOMETRIC MAP, FIRST HALF 2025

DRAWN BY: B. TRACY
PROJ. NO.: 635879
CHECKED BY: D. STITCHER
APPROVED BY: E. GAINES
DATE: NOVEMBER 2025

FIGURE 2.1

TRC

700 HIGHLANDER BLVD.
SUITE 210
ARLINGTON, TX 76015
T: (817) 522-1000

FILE: November_2025_Groundwater_Contour_Maps.aprx

Coordinate System: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet; Map Rotation: 0
-- Saved By: DSTITCHER on 11/11/2025, 08:56:37 AM; File Path: T:\arcgispro\1-PROJECTS\ENTERGY\635879_Groundwater_Contour_Maps\2-APRX\November_2025_Groundwater_Contour_Maps.aprx; Layout Name: Figure 2.1 Stratum 1 PotMap First Half 2025

LEGEND

- STRATUM III BACKROUND WELL
- STRATUM III MW
- STRATUM III PIEZOMETER
- GROUNWATER CONTOUR INFERRED

No. 3051
EMMA GAINES
1/31/2026

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
(AERIAL DATE: 10/21/2021)
DATA SOURCES: TRC

N

1:4,800
1" = 400'
0 400 800 FEET

PROJECT:
ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

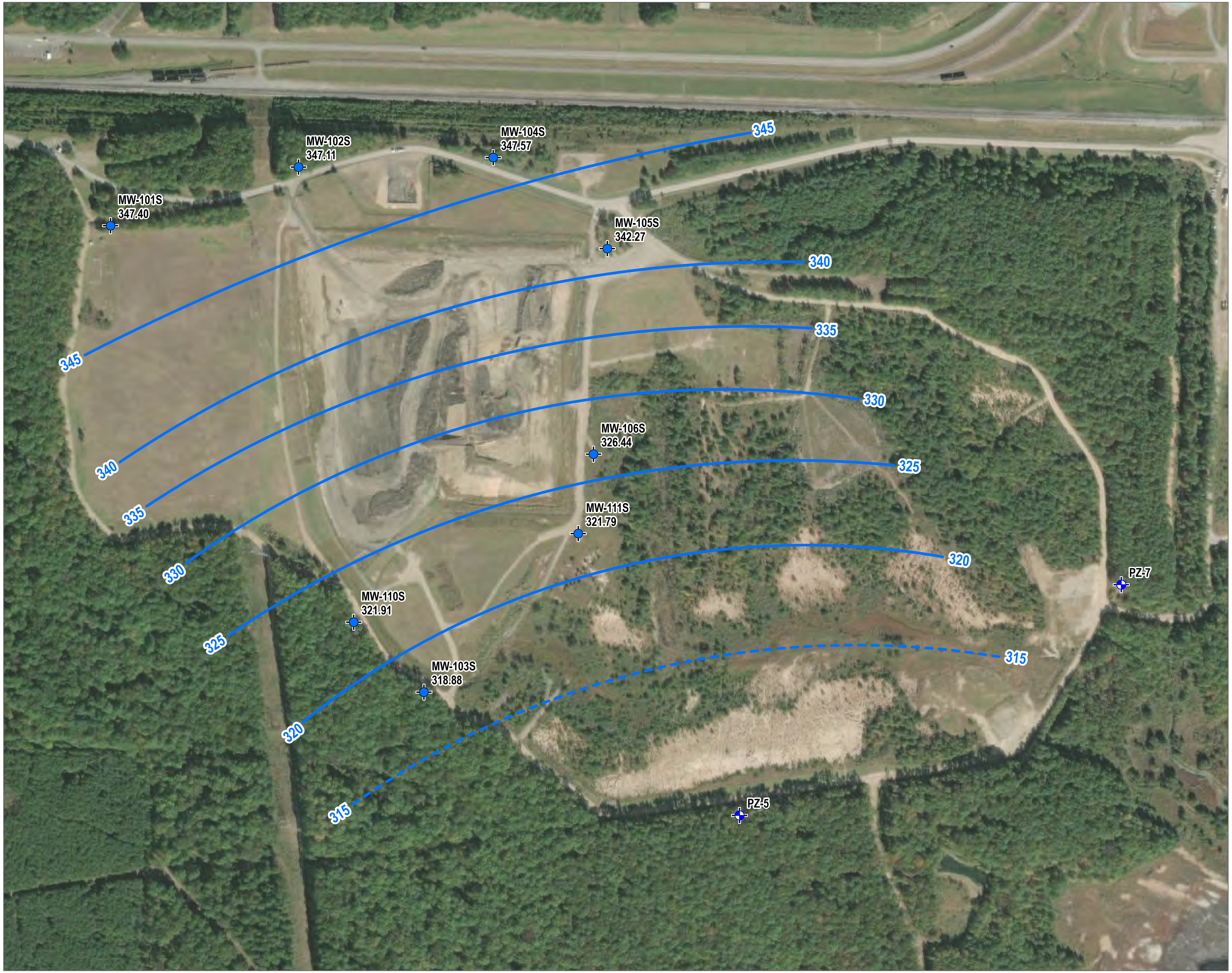
TITLE:
STRATUM 3 POTENTIOMETRIC MAP, FIRST HALF 2025

DRAWN BY:	D. STITCHER	PROJ. NO.:	635879
CHECKED BY:	W. XIE	**FIGURE 2.2**	
APPROVED BY:	E. GAINES		
DATE:	NOVEMBER 2025		

TRC
700 HIGHLANDER BLVD.
SUITE 210
ARLINGTON, TX 76015
T: (817) 522-1000

FILE: November_2025_Groundwater_Contour_Maps.aprx

tem: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet; Map Rotation: 0
-- Saved By: DSTITCHER on 11/11/2025, 08:56:37 AM; File Path: T:\arcgispro\1-PROJECTS\ENTERGY\635879_Groundwater_Contour_Maps\2-APRX\November_2025_Groundwater_Contour_Maps.aprx; Layout Name: Figure 2.2 Stratum 3 PotMap First Half 2025



LEGEND

- ⊕ STRATUM I MW
- ⊕ STRATUM III PIEZOMETER
- — GROUNDWATER CONTOUR
- - - GROUNWATER CONTOUR INFERRED

No. 3051
EMMA GAINES
1/31/2026

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
(AERIAL DATE: 10/21/2021)
DATA SOURCES: TRC

N

1:4,800
1" = 400'
0 400 800 FEET

PROJECT:
ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:
STRATUM 1 POTENTIOMETRIC MAP,
SECOND HALF 2025

DRAWN BY:	D. STITCHER	PROJ. NO.:	635879
CHECKED BY:	W. XIE	**FIGURE 2.3**	
APPROVED BY:	E. GAINES		
DATE:	NOVEMBER 2025		

TRC

700 HIGHLANDER BLVD.
SUITE 210
ARLINGTON, TX 76015
T: (817) 522-1000

FILE: November_2025_Groundwater_Contour_Maps.aprx

tem: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet; Map Rotation: 0
-- Saved By: DSTITCHER on 11/11/2025, 08:56:37 AM; File Path: T:\arcgispro\1-PROJECTS\ENTERGY\635879_Groundwater_Contour_Maps\2-APRX\November_2025_Groundwater_Contour_Maps.aprx; Layout Name: Figure 2.3 Stratum 1 PotMap Second Half 2025

LEGEND

- ● STRATUM III BACKROUND WELL
- ○ STRATUM III MW
- ● STRATUM III PIEZOMETER
- - - GROUNWATER CONTOUR INFERRED

No. 3051
EMMA GAINES
1/31/2026

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
(AERIAL DATE: 10/21/2021)
DATA SOURCES: TRC

N

1:4,900
1" = 408'
0 400 800 FEET

PROJECT:
ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:
STRATUM 3 POTENTIOMETRIC MAP, SECOND HALF 2025

DRAWN BY:	D. STITCHER	PROJ. NO.:	635879
CHECKED BY:	W. XIE	FIGURE 2.4	
APPROVED BY:	E. GAINES		
DATE:	NOVEMBER 2025		

TRC
700 HIGHLANDER BLVD.
SUITE 210
ARLINGTON, TX 76015
T: (817) 522-1000

FILE: November_2025_Groundwater_Contour_Maps.aprx

tem: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet; Map Rotation: 0
-- Saved By: DSTITCHER on 11/11/2025, 08:56:37 AM; File Path: T:\arcgispro\1-PROJECTS\ENTERGY\635879_Groundwater_Contour_Maps\2-APRX\November_2025_Groundwater_Contour_Maps.aprx; Layout Name: Figure 2.4 Stratum 3 PotMap Second Half 2025

APPENDIX C

GROUNDWATER QUALITY DATA

Sampling Schedule, Entergy White Bluff CADL Network			
Well ID	Detection Monitoring Sampling Dates and Wells Sampled		
	4/22-30/2025	9/15-19/2025	Number of Samples Collected
MW-101S	X	X	2
MW-102S	X	X	2
MW-103S	X	X	2
MW-104S	X	X	2
MW-105S	X	X	2
MW-106S	X	X	2
MW-110S	X	X	2
MW-111S	X	X	2
MW-101D	X	X	2
MW-102D	X	X	2
MW-103D	X	X	2
MW-104D	X	X	2
MW-105D	X	X	2
MW-106D	X	X	2
MW-107D	X	X	2
MW-108D	X	X	2
MW-109D	X	X	2
MW-110D	X	X	2
MW-112D	X	X	2
MW-113D	X	X	2
MW-114D	X	X	2
MW-115D	X	X	2
MW-118D	X	X	2

Notes: All samples collected through 2025 were part of the detection monitoring program. No samples collected through 2025 were part of an assessment monitoring program.

Summary of Analytical Results - First Half 2025

Well ID	Date	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	pH (s.u.)
MW-101S	04/29/2025	<0.200	19.5	6.47	<0.150	48.5	219	5.85
MW-102S	04/28/2025	<0.200	13.5	6.59	<0.150	22.9	193	6.25
MW-103S	04/22/2025	<0.200	4.7	5.75	<0.150	43.8	151	4.86
MW-104S	04/28/2025	0.827	14.7	3.75	<0.150	68.2	243	5.07
MW-105S	04/30/2025	<0.200	15.1	3.59	<0.150	21.1	187	5.90
MW-106S	04/22/2025	8.53	38.7	11.4	<0.750	813	1,260	4.03
MW-110S	04/22/2025	2.47	10.5	5.91	0.228	241	483	4.17
MW-111S	04/22/2025	6.95	101	11.1	<1.50	775	1,200	4.01
MW-101D	04/29/2025	<0.200	57.5	5.28	<0.150	<5.00	380	6.85
MW-102D	04/28/2025	0.269	64.9	7.18	<0.150	20.4	397	7.28
MW-103D	04/27/2025	0.283	69.2	6.16	0.152	<5.00	497	7.16
MW-104D	04/28/2025	0.239	56.7	8.42	<0.150	23.8	334	7.24
MW-105D	04/29/2025	0.277	57.8	7.70	<0.150	24.1	358	7.49
MW-106D	04/30/2025	0.307	52.2	4.90	<0.150	9.38	356	7.57
MW-107D	04/30/2025	0.317	80.2	20.1	<0.150	126	532	7.26
MW-108D	04/23/2025	0.349	65.4	12.6	0.151	33.1	472	7.2
MW-109D	04/23/2025	0.319	49.2	<10.0	<1.50	<50.0	372	7.23
MW-110D	04/29/2025	0.311	48.8	7.04	<0.150	42.3	359	7.21
MW-112D	04/23/2025	0.291	43.2	6.43	<0.150	<5.00	326	7.28
MW-113D	04/30/2025	0.503	198	15.6	0.323	736	1,200	6.85
MW-114D	04/23/2025	0.281	54.2	7.49	<0.150	27.1	327	7.36
MW-115D	04/23/2025	0.343	43.7	4.53	0.161	<5.00	334	7.12
MW-118D	04/23/2025	0.289	83.2	<10.0	<1.50	133	502	7.08
DUP-1	04/28/2025	0.263	64.9	7.95	<0.150	22.0	401	7.28
DUP-2	04/30/2025	0.492	199	14.2	<0.150	667	1,210	6.85
FB	04/30/2025	<0.200	<1.00	<1.00	<0.150	<5.00	<10.0	–

Notes:

mg/L – Milligrams per liter

s.u. – Standard Unit

DUP-1 was a duplicate sample of MW-102D; DUP-2 was a duplicate sample of MW-113D.

FB was a field blank.

Summary of Analytical Results - Second Half 2025								
Well ID	**Date**	**Boron (mg/L)**	**Calcium (mg/L)**	**Chloride (mg/L)**	**Fluoride (mg/L)**	**Sulfate (mg/L)**	**TDS (mg/L)**	**pH (s.u.)**
MW-101S	09/18/2025	<0.200	15.1	7.49	<0.150	50.8	212	4.88
MW-102S	09/16/2025	<0.200	14.1	7.66	<0.150	26.3	202	5.88
MW-103S	09/15/2025	0.537	6.91	5.29	<0.150	85.1	237	5.69
MW-104S	09/16/2025	0.762	14.8	4.39	<0.150	68.4	234	3.48
MW-105S	09/19/2025	<0.200	17.0	5.18	<0.150	30.8	202	5.50
MW-106S	09/17/2025	7.91	34.3	13.6	<1.50	807	1230	3.40
MW-110S	09/15/2025	2.15	6.08	3.70	<0.150	156	368	4.86
MW-111S	09/17/2025	6.50	80.3	11.6	<0.750	721	1150	3.50
MW-101D	09/18/2025	<0.200	54.1	6.20	<0.150	81.4	363	6.00
MW-102D	09/16/2025	0.260	61.1	7.28	<0.150	22.0	378	7.16
MW-103D	09/15/2025	0.263	61.8	6.12	<0.150	72.5	479	8.15
MW-104D	09/16/2025	0.230	55.0	8.62	<0.150	23.7	329	4.86
MW-105D	09/19/2025	0.273	55.1	8.39	<0.150	28.7	346	6.96
MW-106D	09/17/2025	0.250	17.3	5.26	<0.150	12.2	192	9.12
MW-107D	09/19/2025	0.310	74.0	20.7	<0.150	113	514	6.89
MW-108D	09/19/2025	0.334	66.1	12.5	<0.150	47.7	490	6.64
MW-109D	09/17/2025	0.304	47.7	6.28	<0.150	43.8	367	7.11
MW-110D	09/15/2025	0.294	45.6	6.71	<0.150	39.5	347	8.01
MW-112D	09/19/2025	0.277	42.8	6.90	<0.150	5.83	331	7.74
MW-113D	09/19/2025	0.493	191	13.3	<0.750	583	1,200	6.11
MW-114D	09/16/2025	0.258	51.4	7.54	<0.150	32.5	322	7.40
MW-115D	09/17/2025	0.324	43.0	4.60	<0.150	<5.00	333	7.44
MW-118D	09/16/2025	0.272	80.2	8.80	<0.150	113	490	6.69
DUP-1	09/18/2025	<0.200	53.4	6.12	<0.150	80.3	366	6.00
DUP-2	09/18/2025	<0.200	15.2	7.70	<0.150	49.1	210	4.88
FB	09/19/2025	<0.200	<1.00	<1.00	<0.150	<5.00	<10.0	–

Notes:

mg/L – Milligrams per liter
s.u. – Standard Unit
DUP-1 was a duplicate sample of MW-101D; DUP-2 was a duplicate sample of MW-101S.
FB was a field blank.

ANALYTICAL REPORT

May 13, 2025

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1854370
Samples Received:	05/02/2025
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

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

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-101S L1854370-01

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/29/25 11:50	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505844	1	05/03/25 11:22	05/03/25 16:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 04:32	05/08/25 04:32	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:30	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 15:36	JPD	Mt. Juliet, TN

MW-102S L1854370-02

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/28/25 12:50	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505843	1	05/03/25 11:27	05/03/25 15:28	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 04:48	05/08/25 04:48	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:32	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:02	UNP	Mt. Juliet, TN

MW-104S L1854370-03

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/28/25 10:00	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505843	1	05/03/25 11:27	05/03/25 15:28	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 05:04	05/08/25 05:04	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:34	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:05	UNP	Mt. Juliet, TN

MW-105S L1854370-04

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 12:45	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 05:21	05/08/25 05:21	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:36	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:08	UNP	Mt. Juliet, TN

MW-101D L1854370-05

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/29/25 13:10	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505844	1	05/03/25 11:22	05/03/25 16:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 06:10	05/08/25 06:10	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:38	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:11	UNP	Mt. Juliet, TN

MW-102D L1854370-06

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/28/25 13:20	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505843	1	05/03/25 11:27	05/03/25 15:28	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 06:26	05/08/25 06:26	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:40	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:14	UNP	Mt. Juliet, TN

SAMPLE SUMMARY

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

MW-103D L1854370-07

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/29/25 09:25	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505844	1	05/03/25 11:22	05/03/25 16:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 06:43	05/08/25 06:43	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:42	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:18	UNP	Mt. Juliet, TN

MW-104D L1854370-08

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/28/25 10:45	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505843	1	05/03/25 11:27	05/03/25 15:28	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 06:59	05/08/25 06:59	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:44	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:21	UNP	Mt. Juliet, TN

MW-105D L1854370-09

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/29/25 14:20	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505844	1	05/03/25 11:22	05/03/25 16:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 07:15	05/08/25 07:15	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:49	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:24	UNP	Mt. Juliet, TN

MW-106D L1854370-10

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 11:55	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505886	1	05/08/25 07:32	05/08/25 07:32	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:51	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:27	UNP	Mt. Juliet, TN

MW-107D L1854370-11

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 10:00	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 13:59	05/05/25 13:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	5	05/05/25 14:12	05/05/25 14:12	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:53	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:30	UNP	Mt. Juliet, TN

MW-110D L1854370-12

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/29/25 10:30	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505844	1	05/03/25 11:22	05/03/25 16:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 14:26	05/05/25 14:26	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:55	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:40	UNP	Mt. Juliet, TN

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

MW-113D L1854370-13

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 08:25	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 15:19	05/05/25 15:19	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	10	05/05/25 15:33	05/05/25 15:33	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:07	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:43	UNP	Mt. Juliet, TN

FIELD BLANK 1 L1854370-14

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 12:45	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 15:46	05/05/25 15:46	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510360	1	05/09/25 22:07	05/10/25 05:57	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:47	UNP	Mt. Juliet, TN

DUPLICATE 1 (MW-102D) L1854370-15

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 13:20	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 16:27	05/05/25 16:27	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510366	1	05/09/25 23:44	05/10/25 05:08	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:50	UNP	Mt. Juliet, TN

FIELD BLANK 2 L1854370-16

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 12:55	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 16:40	05/05/25 16:40	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510366	1	05/09/25 23:44	05/10/25 05:10	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:53	UNP	Mt. Juliet, TN

DUPLICATE 2 (MW-113D) L1854370-17

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/30/25 09:25	05/02/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2505847	1	05/03/25 15:42	05/04/25 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	1	05/05/25 16:53	05/05/25 16:53	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2505889	10	05/05/25 17:07	05/05/25 17:07	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2510366	1	05/09/25 23:44	05/10/25 05:12	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2510415	1	05/09/25 09:15	05/09/25 16:56	UNP	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.

Brittnie Boyd

Brittnie L Boyd
Project Manager

MW-101S

Collected date/time: 04/29/25 11:50

SAMPLE RESULTS - 01

L1854370

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	219		10.0	1	05/03/2025 16:17	WG2505844

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.47		1.00	1	05/08/2025 04:32	WG2505886
Fluoride	ND		0.150	1	05/08/2025 04:32	WG2505886
Sulfate	48.5		5.00	1	05/08/2025 04:32	WG2505886

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	05/10/2025 05:30	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	19.5		1.00	1	05/09/2025 15:36	WG2510415

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	193		10.0	1	05/03/2025 15:28	WG2505843

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.59		1.00	1	05/08/2025 04:48	WG2505886
Fluoride	ND		0.150	1	05/08/2025 04:48	WG2505886
Sulfate	22.9		5.00	1	05/08/2025 04:48	WG2505886

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	05/10/2025 05:32	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	13.5		1.00	1	05/09/2025 16:02	WG2510415

MW-104S

Collected date/time: 04/28/25 10:00

SAMPLE RESULTS - 03

L1854370

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	243		10.0	1	05/03/2025 15:28	WG2505843

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	3.75		1.00	1	05/08/2025 05:04	WG2505886
Fluoride	ND		0.150	1	05/08/2025 05:04	WG2505886
Sulfate	68.2		5.00	1	05/08/2025 05:04	WG2505886

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.827		0.200	1	05/10/2025 05:34	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	14.7		1.00	1	05/09/2025 16:05	WG2510415

SAMPLE RESULTS - 04

L1854370

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	187		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	3.59		1.00	1	05/08/2025 05:21	WG2505886
Fluoride	ND		0.150	1	05/08/2025 05:21	WG2505886
Sulfate	21.1		5.00	1	05/08/2025 05:21	WG2505886

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	05/10/2025 05:36	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	15.1		1.00	1	05/09/2025 16:08	WG2510415

MW-101D

Collected date/time: 04/29/25 13:10

SAMPLE RESULTS - 05

L1854370

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	380		10.0	1	05/03/2025 16:17	WG2505844

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	5.28		1.00	1	05/08/2025 06:10	WG2505886
Fluoride	ND		0.150	1	05/08/2025 06:10	WG2505886
Sulfate	ND		5.00	1	05/08/2025 06:10	WG2505886

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	05/10/2025 05:38	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	57.5		1.00	1	05/09/2025 16:11	WG2510415

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	397		10.0	1	05/03/2025 15:28	WG2505843

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.18		1.00	1	05/08/2025 06:26	WG2505886
Fluoride	ND		0.150	1	05/08/2025 06:26	WG2505886
Sulfate	20.4		5.00	1	05/08/2025 06:26	WG2505886

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.269		0.200	1	05/10/2025 05:40	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	64.9		1.00	1	05/09/2025 16:14	WG2510415

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	497		10.0	1	05/03/2025 16:17	WG2505844

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.16		1.00	1	05/08/2025 06:43	WG2505886
Fluoride	0.152		0.150	1	05/08/2025 06:43	WG2505886
Sulfate	ND		5.00	1	05/08/2025 06:43	WG2505886

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.283		0.200	1	05/10/2025 05:42	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	69.2		1.00	1	05/09/2025 16:18	WG2510415

MW-104D
Collected date/time: 04/28/25 10:45

SAMPLE RESULTS - 08

L1854370

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	334		10.0	1	05/03/2025 15:28	WG2505843

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	8.42		1.00	1	05/08/2025 06:59	WG2505886
Fluoride	ND		0.150	1	05/08/2025 06:59	WG2505886
Sulfate	23.8		5.00	1	05/08/2025 06:59	WG2505886

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.239		0.200	1	05/10/2025 05:44	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	56.7		1.00	1	05/09/2025 16:21	WG2510415

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	358		10.0	1	05/03/2025 16:17	WG2505844

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.70		1.00	1	05/08/2025 07:15	WG2505886
Fluoride	ND		0.150	1	05/08/2025 07:15	WG2505886
Sulfate	24.1		5.00	1	05/08/2025 07:15	WG2505886

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.277		0.200	1	05/10/2025 05:49	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	57.8		1.00	1	05/09/2025 16:24	WG2510415

MW-106D

Collected date/time: 04/30/25 11:55

SAMPLE RESULTS - 10

L1854370

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	356		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.90		1.00	1	05/08/2025 07:32	WG2505886
Fluoride	ND		0.150	1	05/08/2025 07:32	WG2505886
Sulfate	9.38		5.00	1	05/08/2025 07:32	WG2505886

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.307		0.200	1	05/10/2025 05:51	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	52.2		1.00	1	05/09/2025 16:27	WG2510415

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	532		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	20.1		1.00	1	05/05/2025 13:59	WG2505889
Fluoride	ND		0.150	1	05/05/2025 13:59	WG2505889
Sulfate	126		25.0	5	05/05/2025 14:12	WG2505889

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.317		0.200	1	05/10/2025 05:53	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	80.2		1.00	1	05/09/2025 16:30	WG2510415

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	359		10.0	1	05/03/2025 16:17	WG2505844

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.04		1.00	1	05/05/2025 14:26	WG2505889
Fluoride	ND		0.150	1	05/05/2025 14:26	WG2505889
Sulfate	42.3		5.00	1	05/05/2025 14:26	WG2505889

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.311		0.200	1	05/10/2025 05:55	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	48.8		1.00	1	05/09/2025 16:40	WG2510415

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	1200		20.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	15.6		1.00	1	05/05/2025 15:19	WG2505889
Fluoride	0.323		0.150	1	05/05/2025 15:19	WG2505889
Sulfate	736		50.0	10	05/05/2025 15:33	WG2505889

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.503		0.200	1	05/10/2025 05:07	WG2510360

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	198		1.00	1	05/09/2025 16:43	WG2510415

FIELD BLANK 1

Collected date/time: 04/30/25 12:45

SAMPLE RESULTS - 14

L1854370

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	05/05/2025 15:46	WG2505889
Fluoride	ND		0.150	1	05/05/2025 15:46	WG2505889
Sulfate	ND	P1	5.00	1	05/05/2025 15:46	WG2505889

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	05/10/2025 05:57	WG2510360

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	05/09/2025 16:47	WG2510415

DUPLICATE 1 (MW-102D)

Collected date/time: 04/30/25 13:20

SAMPLE RESULTS - 15

L1854370

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	401		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.95		1.00	1	05/05/2025 16:27	WG2505889
Fluoride	ND		0.150	1	05/05/2025 16:27	WG2505889
Sulfate	22.0		5.00	1	05/05/2025 16:27	WG2505889

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.263		0.200	1	05/10/2025 05:08	WG2510366

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	64.9		1.00	1	05/09/2025 16:50	WG2510415

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	05/05/2025 16:40	WG2505889
Fluoride	ND		0.150	1	05/05/2025 16:40	WG2505889
Sulfate	ND		5.00	1	05/05/2025 16:40	WG2505889

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	05/10/2025 05:10	WG2510366

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	05/09/2025 16:53	WG2510415

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1210		20.0	1	05/04/2025 15:42	WG2505847

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	14.2		1.00	1	05/05/2025 16:53	WG2505889
Fluoride	ND		0.150	1	05/05/2025 16:53	WG2505889
Sulfate	667		50.0	10	05/05/2025 17:07	WG2505889

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.492		0.200	1	05/10/2025 05:12	WG2510366

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	199		1.00	1	05/09/2025 16:56	WG2510415

Method Blank (MB)

(MB) R4209867-1 05/03/25 15:28

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

L1853028-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1853028-03 05/03/25 15:28 • (DUP) R4209867-3 05/03/25 15:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	323	322	1	0.310		10

L1854370-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1854370-08 05/03/25 15:28 • (DUP) R4209867-4 05/03/25 15:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	334	337	1	0.894		10

Laboratory Control Sample (LCS)

(LCS) R4209867-2 05/03/25 15:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8650	98.3	90.0-110	

Method Blank (MB)

(MB) R4209950-1 05/03/25 16:17

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

L1853862-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1853862-01 05/03/25 16:17 • (DUP) R4209950-3 05/03/25 16:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3830	3630	1	5.50		10

L1854370-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1854370-12 05/03/25 16:17 • (DUP) R4209950-4 05/03/25 16:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	359	358	1	0.279		10

Laboratory Control Sample (LCS)

(LCS) R4209950-2 05/03/25 16:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8460	96.1	90.0-110	

QUALITY CONTROL SUMMARY

L1854370-04,10,11,13,14,15,16,17

Method Blank (MB)

(MB) R4210594-1 05/04/25 15:42

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

L1854317-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1854317-20 05/04/25 15:42 • (DUP) R4210594-3 05/04/25 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	577	579	1	0.346		10

L1854370-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1854370-17 05/04/25 15:42 • (DUP) R4210594-4 05/04/25 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1210	1220	1	0.329		10

Laboratory Control Sample (LCS)

(LCS) R4210594-2 05/04/25 15:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	90.0-110	

Method Blank (MB)

(MB) R4211521-1 05/07/25 21:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1854317-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1854317-27 05/07/25 21:59 • (DUP) R4211521-3 05/07/25 22:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	17.1	16.6	1	2.94		15
Fluoride	0.458	0.397	1	14.2		15
Sulfate	46.9	46.3	1	1.36		15

L1854318-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1854318-01 05/07/25 23:05 • (DUP) R4211521-6 05/07/25 23:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	ND	ND	1	3.05		15

Laboratory Control Sample (LCS)

(LCS) R4211521-2 05/07/25 21:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	35.2	88.1	80.0-120	
Fluoride	8.00	7.49	93.6	80.0-120	
Sulfate	40.0	35.2	88.0	80.0-120	

L1854317-27 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1854317-27 05/07/25 21:59 • (MS) R4211521-4 05/07/25 22:32 • (MSD) R4211521-5 05/07/25 22:48

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	40.0	17.1	52.5	52.7	88.5	88.8	1	80.0-120			0.256	15
Fluoride	8.00	0.458	8.47	8.54	100	101	1	80.0-120			0.750	15
Sulfate	40.0	46.9	76.6	76.9	74.3	75.1	1	80.0-120	J6	J6	0.369	15

L1854318-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1854318-01 05/07/25 23:05 • (MS) R4211521-7 05/07/25 23:37

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Fluoride	8.00	ND	7.42	91.4	1	80.0-120	

WG2505889

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

L1854370-11,12,13,14,15,16,17

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

Method Blank (MB)

(MB) R4210308-1 05/05/25 13:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1854370-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1854370-12 05/05/25 14:26 • (DUP) R4210308-3 05/05/25 14:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.04	6.71	1	4.82		15
Fluoride	ND	ND	1	9.96		15
Sulfate	42.3	40.0	1	5.56		15

L1854370-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1854370-14 05/05/25 15:46 • (DUP) R4210308-6 05/05/25 16:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	ND	ND	1	0.000		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	200	P1	15

Laboratory Control Sample (LCS)

(LCS) R4210308-2 05/05/25 13:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.9	97.1	80.0-120	
Fluoride	8.00	8.32	104	80.0-120	
Sulfate	40.0	39.7	99.2	80.0-120	

L1854370-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1854370-12 05/05/25 14:26 • (MS) R4210308-4 05/05/25 14:53 • (MSD) R4210308-5 05/05/25 15:06

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	40.0	7.04	48.3	48.5	103	104	1	80.0-120			0.422	15
Fluoride	8.00	ND	9.52	9.46	117	117	1	80.0-120			0.604	15
Sulfate	40.0	42.3	76.9	77.0	86.5	86.6	1	80.0-120			0.0474	15

L1854370-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1854370-14 05/05/25 15:46 • (MS) R4210308-7 05/05/25 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	ND	42.9	107	1	80.0-120	
Fluoride	8.00	ND	9.53	119	1	80.0-120	
Sulfate	40.0	ND	44.5	105	1	80.0-120	

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

Method Blank (MB)

(MB) R4212755-1 05/10/25 05:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0233	0.200

Laboratory Control Sample (LCS)

(LCS) R4212755-2 05/10/25 05:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.974	97.4	80.0-120	

L1854370-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1854370-13 05/10/25 05:07 • (MS) R4212755-4 05/10/25 05:11 • (MSD) R4212755-5 05/10/25 05:13

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	0.503	1.49	1.49	98.4	99.0	1	75.0-125			0.360	20

Method Blank (MB)

(MB) R4212804-1 05/10/25 04:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0233	0.200

Laboratory Control Sample (LCS)

(LCS) R4212804-2 05/10/25 04:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.964	96.4	80.0-120	

L1854376-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1854376-04 05/10/25 05:01 • (MS) R4212804-4 05/10/25 05:04 • (MSD) R4212804-5 05/10/25 05:06

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	1.00	1.00	96.2	96.2	1	75.0-125			0.0305	20

Method Blank (MB)

(MB) R4212445-1 05/09/25 15:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4212445-2 05/09/25 15:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.14	103	80.0-120	

L1854370-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1854370-01 05/09/25 15:36 • (MS) R4212445-4 05/09/25 15:39 • (MSD) R4212445-5 05/09/25 15:42

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 %
Calcium	5.00	19.5	24.0	23.9	89.7	87.9	1	75.0-125			0.386	20

GLOSSARY OF TERMS

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

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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	LAO00356
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.

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1854370
A128

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1141577**
PM: **829 - Brittnie L Boyd**
PB: 3/26/24 mw
Shipped Via: **FedEX Priority**

Collected by (print): Jacob Colbert

Site/Facility ID #
CADL - CCR

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ [✓ Y]

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
																	pH	
MW-101S	G	GW		4-29-25	1150	3	X	X	X								5.85	-01
MW-102S	G	GW		4-28-25	1250	3	X	X	X								6.25	-02
MW-103S		GW																
MW-104S	G	GW		4-28-25	1000	3	X	X	X								5.07	-03
MW-105S	G	GW		4-30-25	1245	3	X	X	X								5.85	-04
MW-106S		GW																
MW-110S		GW																
MW-111S		GW																
MW-101D	G	GW		4-29-25	1310	3	X	X	X								6.85	-05
MW-102D	G	GW		4-28-25	1720	3	X	X	X								7.28	-06

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

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

Relinquished by : (Signature) Jacob Colbert
Date: 5-1-25
Time: 1005
Received by: (Signature)

Trip Blank Received: Yes [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C
Bottles Received: 51

If ... Date/Time
pH - 1080H2631
TRC - 2227A33

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature) Deyanh

Date: 5-2-25
Time: 0900

Hold:

Condition: NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Jonathan Brown 501-847-7077

Email To: Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description: Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # 1145-21-080

Lab Project # GBMCBAR-ENTERGYWB

SDG # L1854370

Table #

Collected by (print): Jacob Colbert

Site/Facility ID # CADL - CCR

P.O. #

Acctnum: GBMCBAR
Template: T198831
Prelogin: P1141577
PM: 829 - Brittnie L Boyd
PB: 3/26/25 MV
Shipped Via: FedEX Priority

Collected by (signature):

Immediately Packed on Ice N ___ [✓ Y]

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks pH	Sample # (lab only)
MW-103D	G	GW		4-27-25	0925	3	X	X	X	7.16	-07
MW-104D	G	GW		4-28-25	1045	3	X	X	X	7.24	-08
MW-105D	G	GW		4-29-25	1420	3	X	X	X	7.49	-09
MW-106D	G	GW		4-30-25	1155	3	X	X	X	7.57	-10
MW-107D	G	GW		4-30-25	1000	3	X	X	X	7.26	-11
MW-108D		GW									
MW-109D		GW									
MW-110D	G	GW		4-24-25	1030	3	X	X	X	7.21	-12
MW-112D		GW									
MW-113D	G	GW		4-30-25	0925	~~2~~ 3	X	X	X	6.85	-13

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: ✓ 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

Samples returned via:
___ UPS ___ FedEx ___ Courier ________

Tracking #

Relinquished by : (Signature) Jacob Colbert
Date: 5-1-25
Time: 1005
Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C
Bottles Received: 51

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)
Date: 5.2.25
Time: 0900

Hold:

Condition: NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1854370

Table #

Collected by (print): Jacob Colbert

Site/Facility ID #
CADL - CCR

P.O. #

Acctnum: GBMCBAR
Template: T198831
Prelogin: P1141577
PM: 829 - Brittnie L Boyd
PB: 3/26/25 MV
Shipped Via: FedEX Priority

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks pH	Sample # (lab only)
MW-114D		GW																
MW-115D		GW																
MW-118D		GW																
FIELD BLANK 1	G	GW		4-30-25	1245	3	X	X	X									-14
DUPLICATE 1 (MW-102D)	G	GW		[illegible]	1320	3	X	X	X								7.28	-15
FIELD BLANK 2	G	GW		4-30-25	1255	3	X	X	X									-16
DUPLICATE 2 (MW-113D)	G	GW		4-30-25	0925	3	X	X	X								6.85	-17
		GW																
		GW																
		GW																

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

Remarks:
Duplicate 1 (MW-102D) Date - 4/28/25

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) Jacob Colbert
Date: 5-1-25
Time: 1005
Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
—
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C
Bottles Received: 51

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature) Deyon [illegible]
Date: 5-2-25
Time: 0900

Hold:

Condition: NCF / [✓ OK]

DC#_Title: Excel Form Template
Effective Date:

Multiple Parcel Form

L# L1854370

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
443924475119	TLA9	2.8	0.4	3.2	Yes / No / [✓ Not Present]
443924475093	TLA9	4.0	0.4	4.4	Yes / No / [✓ Not Present]
443924475108	TLA9	2.9	0.4	3.3	Yes / No / [✓ Not Present]
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Name

5.2.25
Date

ANALYTICAL REPORT

May 07, 2025

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1852275
Samples Received:	04/26/2025
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

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

TABLE OF CONTENTS

SAMPLE SUMMARY

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

MW-103S L1852275-01 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 12:05	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2500767	1	05/01/25 06:59	05/01/25 06:59	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 12:54	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 18:42	UNP	Mt. Juliet, TN

MW-106S L1852275-02 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 16:10	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2500767	10	05/01/25 08:04	05/01/25 08:04	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2500767	5	05/01/25 07:51	05/01/25 07:51	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 12:55	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 17:37	UNP	Mt. Juliet, TN

MW-110S L1852275-03 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 13:35	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2500767	1	05/01/25 08:17	05/01/25 08:17	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2500767	10	05/01/25 08:30	05/01/25 08:30	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:01	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 18:45	UNP	Mt. Juliet, TN

MW-111S L1852275-04 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 15:00	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	10	05/01/25 00:44	05/01/25 00:44	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:02	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 18:55	UNP	Mt. Juliet, TN

MW-108D L1852275-05 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 12:40	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	1	05/01/25 01:11	05/01/25 01:11	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:04	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 18:59	UNP	Mt. Juliet, TN

MW-109D L1852275-06 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 11:25	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	10	05/01/25 02:05	05/01/25 02:05	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:06	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 19:02	UNP	Mt. Juliet, TN

SAMPLE SUMMARY

MW-112D L1852275-07 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 13:45	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	1	05/01/25 02:18	05/01/25 02:18	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:07	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506671	1	05/05/25 10:32	05/05/25 19:05	UNP	Mt. Juliet, TN

MW-114D L1852275-08 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 14:50	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	1	05/01/25 02:32	05/01/25 02:32	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:09	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506672	1	05/05/25 08:28	05/06/25 00:05	UNP	Mt. Juliet, TN

MW-115D L1852275-09 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 10:20	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	1	05/01/25 02:59	05/01/25 02:59	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:11	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506672	1	05/05/25 08:28	05/06/25 00:19	UNP	Mt. Juliet, TN

MW-118D L1852275-10 GW

Collected by	Collected date/time	Received date/time
Jacob Colbert	04/22/25 16:05	04/26/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2501806	1	04/28/25 23:00	04/29/25 11:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2501035	10	05/01/25 03:26	05/01/25 03:26	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2506603	1	05/06/25 09:23	05/06/25 13:13	RLS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2506672	1	05/05/25 08:28	05/06/25 00:22	UNP	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.

Brittnie Boyd

Brittnie L Boyd
Project Manager

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

Analyte	Result	Units
pH (On Site)	4.86	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	151		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.75		1.00	1	05/01/2025 06:59	WG2500767
Fluoride	ND		0.150	1	05/01/2025 06:59	WG2500767
Sulfate	43.8		5.00	1	05/01/2025 06:59	WG2500767

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	05/06/2025 12:54	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	4.70		1.00	1	05/05/2025 18:42	WG2506671

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

Analyte	Result	Units
pH (On Site)	4.03	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1260		20.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	11.4		5.00	5	05/01/2025 07:51	WG2500767
Fluoride	ND		0.750	5	05/01/2025 07:51	WG2500767
Sulfate	813		50.0	10	05/01/2025 08:04	WG2500767

Sample Narrative:

L1852275-02 WG2500767: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	8.53		0.200	1	05/06/2025 12:55	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	38.7		1.00	1	05/05/2025 17:37	WG2506671

MW-110S

Collected date/time: 04/22/25 13:35

SAMPLE RESULTS - 03

L1852275

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

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

Analyte	Result	Units
pH (On Site)	4.17	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	483		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.91		1.00	1	05/01/2025 08:17	WG2500767
Fluoride	0.228		0.150	1	05/01/2025 08:17	WG2500767
Sulfate	241		50.0	10	05/01/2025 08:30	WG2500767

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	2.47		0.200	1	05/06/2025 13:01	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	10.5		1.00	1	05/05/2025 18:45	WG2506671

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

Analyte	Result	Units
pH (On Site)	4.86	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1200		20.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	11.1		10.0	10	05/01/2025 00:44	WG2501035
Fluoride	ND		1.50	10	05/01/2025 00:44	WG2501035
Sulfate	775		50.0	10	05/01/2025 00:44	WG2501035

Sample Narrative:

L1852275-04 WG2501035: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	6.95		0.200	1	05/06/2025 13:02	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	101		1.00	1	05/05/2025 18:55	WG2506671

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

	Result	Units
Analyte		
pH (On Site)	7.2	su

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	472		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	12.6		1.00	1	05/01/2025 01:11	WG2501035
Fluoride	0.151	B	0.150	1	05/01/2025 01:11	WG2501035
Sulfate	33.1		5.00	1	05/01/2025 01:11	WG2501035

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.349		0.200	1	05/06/2025 13:04	WG2506603

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	65.4		1.00	1	05/05/2025 18:59	WG2506671

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 mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	372		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	10	05/01/2025 02:05	WG2501035
Fluoride	ND		1.50	10	05/01/2025 02:05	WG2501035
Sulfate	ND		50.0	10	05/01/2025 02:05	WG2501035

Sample Narrative:

L1852275-06 WG2501035: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.319		0.200	1	05/06/2025 13:06	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	49.2		1.00	1	05/05/2025 19:02	WG2506671

MW-112D
Collected date/time: 04/22/25 13:45

SAMPLE RESULTS - 07

L1852275

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

	Result	Units
Analyte		
pH (On Site)	7.28	su

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	326		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.43		1.00	1	05/01/2025 02:18	WG2501035
Fluoride	ND		0.150	1	05/01/2025 02:18	WG2501035
Sulfate	ND		5.00	1	05/01/2025 02:18	WG2501035

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.291		0.200	1	05/06/2025 13:07	WG2506603

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	43.2		1.00	1	05/05/2025 19:05	WG2506671

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

Analyte	Result	Units
pH (On Site)	7.36	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	327		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.49		1.00	1	05/01/2025 02:32	WG2501035
Fluoride	ND		0.150	1	05/01/2025 02:32	WG2501035
Sulfate	27.1		5.00	1	05/01/2025 02:32	WG2501035

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.281		0.200	1	05/06/2025 13:09	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	54.2		1.00	1	05/06/2025 00:05	WG2506672

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

Analyte	Result	Units
pH (On Site)	7.12	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	334		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.53		1.00	1	05/01/2025 02:59	WG2501035
Fluoride	0.161	B	0.150	1	05/01/2025 02:59	WG2501035
Sulfate	ND		5.00	1	05/01/2025 02:59	WG2501035

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.343		0.200	1	05/06/2025 13:11	WG2506603

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	43.7		1.00	1	05/06/2025 00:19	WG2506672

MW-118D

Collected date/time: 04/22/25 16:05

SAMPLE RESULTS - 10

L1852275

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

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

	Result	Units
Analyte		
pH (On Site)	7.08	su

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	502		10.0	1	04/29/2025 11:37	WG2501806

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	ND		10.0	10	05/01/2025 03:26	WG2501035
Fluoride	ND		1.50	10	05/01/2025 03:26	WG2501035
Sulfate	133		50.0	10	05/01/2025 03:26	WG2501035

Sample Narrative:

L1852275-10 WG2501035: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.289		0.200	1	05/06/2025 13:13	WG2506603

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	83.2		1.00	1	05/06/2025 00:22	WG2506672

QUALITY CONTROL SUMMARY

L1852275-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4208348-1 04/29/25 11:37

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

L1852256-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852256-01 04/29/25 11:37 • (DUP) R4208348-3 04/29/25 11:37

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	147	151	1	2.68		10

L1852256-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1852256-16 04/29/25 11:37 • (DUP) R4208348-4 04/29/25 11:37

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	ND	ND	1	200	P1	10

Laboratory Control Sample (LCS)

(LCS) R4208348-2 04/29/25 11:37

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8790	99.9	90.0-110	

WG2500767

Wet Chemistry by Method 9056A

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

Method Blank (MB)

(MB) R4208275-1 05/01/25 00:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1852256-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1852256-11 05/01/25 04:25 • (DUP) R4208275-3 05/01/25 04:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.38	1.39	1	0.801		15
Fluoride		ND	1	0.000		15
Sulfate	25.3	26.6	1	5.10		15

L1852256-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1852256-12 05/01/25 05:16 • (DUP) R4208275-6 05/01/25 05:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19.0	18.9	1	0.543		15
Fluoride		ND	1	200	P1	15
Sulfate	60.8	60.9	1	0.160		15

Laboratory Control Sample (LCS)

(LCS) R4208275-2 05/01/25 01:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.5	96.3	80.0-120	
Fluoride	8.00	7.63	95.4	80.0-120	
Sulfate	40.0	39.2	98.1	80.0-120	

L1852256-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852256-11 05/01/25 04:25 • (MS) R4208275-4 05/01/25 04:51 • (MSD) R4208275-5 05/01/25 05:03

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	1.38	38.3	38.4	92.2	92.5	1	80.0-120			0.298	15
Fluoride	8.00		7.47	7.50	93.4	93.7	1	80.0-120			0.355	15
Sulfate	40.0	25.3	58.2	58.4	82.3	82.6	1	80.0-120			0.245	15

L1852256-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1852256-12 05/01/25 05:16 • (MS) R4208275-7 05/01/25 05:42

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	19.0	52.3	83.2	1	80.0-120	
Fluoride	8.00		7.42	91.8	1	80.0-120	
Sulfate	40.0	60.8	85.4	61.3	1	80.0-120	J6

QUALITY CONTROL SUMMARY

L1852275-04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4209287-1 05/01/25 00:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	0.0783	J	0.0761	0.150
Sulfate	U		0.637	5.00

L1852275-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1852275-05 05/01/25 01:11 • (DUP) R4209287-3 05/01/25 01:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	12.6	12.1	1	4.33		15
Fluoride	0.151	ND	1	2.41		15
Sulfate	33.1	31.8	1	4.02		15

L1852278-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1852278-07 05/01/25 06:48 • (DUP) R4209287-6 05/01/25 07:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6.43	6.55	1	1.82		15
Fluoride	0.161	0.151	1	6.99		15
Sulfate	ND	ND	1	1.10		15

Laboratory Control Sample (LCS)

(LCS) R4209287-2 05/01/25 00:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.7	96.8	80.0-120	
Fluoride	8.00	7.90	98.8	80.0-120	
Sulfate	40.0	39.8	99.6	80.0-120	

L1852275-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852275-05 05/01/25 01:11 • (MS) R4209287-4 05/01/25 01:38 • (MSD) R4209287-5 05/01/25 01:51

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 %
Chloride	40.0	12.6	49.2	49.1	91.6	91.2	1	80.0-120			0.323	15
Fluoride	8.00	0.151	8.16	8.23	100	101	1	80.0-120			0.800	15
Sulfate	40.0	33.1	65.9	66.0	81.9	82.2	1	80.0-120			0.164	15

L1852278-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1852278-07 05/01/25 06:48 • (MS) R4209287-7 05/01/25 07:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	6.43	45.3	97.2	1	80.0-120	
Fluoride	8.00	0.161	8.49	104	1	80.0-120	
Sulfate	40.0	ND	45.4	101	1	80.0-120	

Method Blank (MB)

(MB) R4210542-1 05/06/25 12:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0233	0.200

Laboratory Control Sample (LCS)

(LCS) R4210542-2 05/06/25 12:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.978	97.8	80.0-120	

L1852262-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852262-29 05/06/25 12:43 • (MS) R4210542-4 05/06/25 12:47 • (MSD) R4210542-5 05/06/25 12:48

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	1.11	1.09	96.2	94.3	1	75.0-125			1.73	20

Method Blank (MB)

(MB) R4210055-1 05/05/25 17:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4210055-2 05/05/25 17:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.15	103	80.0-120	

L1852275-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852275-02 05/05/25 17:37 • (MS) R4210055-4 05/05/25 17:44 • (MSD) R4210055-5 05/05/25 17:47

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	38.7	43.2	43.1	90.1	89.4	1	75.0-125			0.0789	20

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R4210174-1 05/05/25 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4210174-2 05/06/25 00:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.02	100	80.0-120	

L1852275-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852275-08 05/06/25 00:05 • (MS) R4210174-4 05/06/25 00:12 • (MSD) R4210174-5 05/06/25 00:15

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	54.2	59.3	58.1	101	77.8	1	75.0-125			2.00	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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

ACCREDITATIONS & LOCATIONS

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

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	LAO00356
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.

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Chain of Custody Page ___ of ___

Pace® PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1852275
I072

Collected by (print): Jacob Colbert

Site/Facility ID #
CADL - CCR

P.O. #

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1141577**
PM: **829 - Brittnie L Boyd**
PB:
Shipped Via: **FedEX Priority**

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks pH	Sample # (lab only)
MW-101S		GW																
MW-102S		GW																
MW-103S	G	GW		4-22-25	1705	3	x	x	x								4.86	-01
MW-104S		GW																
MW-105S		GW																
MW-106S	G	GW		4-22-25	1610	3	x	x	x								4.03	02
MW-110S	G	GW		4-22-25	1335	3	x	x	x								4.17	03
MW-111S	G	GW		4-22-25	1500	3	x	x	x								4.86	04
MW-101D		GW																
MW-102D		GW																

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: X 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
Jacob Colbert	4-25-25	1325		TZA9

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	If preservation required by Login: Date/Time
				mnHi	30	

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition:
				4-26-25	0845		NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT ~~CT~~ ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1852275

Collected by (print): Jacob Colbert

Site/Facility ID #
CADL - CCR

P.O. #

Table #

Acctnum: **GBMCBAR**
Template:**T198831**
Prelogin: **P1141577**
PM: **829 - Brittnie L Boyd**
PB:
Shipped Via: **FedEX Priority**

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks pH	Sample # (lab only)
MW-103D		GW																
MW-104D		GW																
MW-105D		GW																
MW-106D		GW																
MW-107D		GW																
MW-108D	G	GW		4-23-25	1240	3	X	X	X								7.20	-05
MW-109D	G	GW		4-23-25	1125	3	X	X	X								7.23	06
MW-110D		GW																
MW-112D	G	GW		4-23-25	1345	3	X	X	X								7.28	07
MW-113D		GW																

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

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

Relinquished by : (Signature) Jacob Colbert	Date: 4-25-25	Time: 1325	Received by: (Signature)	Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR TZA9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C multi Bottles Received: 30
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-26-25 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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MT JULIET, TN

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
										pH	
MW-114D	G	GW		4-23-25	1450	3	X	X	X	7.36	08
MW-115D	G	GW		4-23-25	1020	3	X	X	X	7.12	09
MW-118D	G	GW		4-23-25	1605	3	X	X	X	7.08	10
FIELD BLANK 1		GW									
DUPLICATE 1		GW									
FIELD BLANK 2		GW									
DUPLICATE 2		GW									
		GW									
		GW									
		GW									

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

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

Relinquished by : (Signature) Jacob Colbert	Date: 4-25-25	Time: 1325	Received by: (Signature)	Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR TLA9
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C mnAi Bottles Received: 30
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-26-25 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / [✓ OK]

Multiple Parcel Form

L# L1852275

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
4439 2447 ~~5183~~ DM 5163	TLA9	1.0	0.4	1.4	Yes / No / [✓ Not Present]
4439 2447 5152	TLA9	3.4	0.4	3.8	Yes / No / [✓ Not Present]
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Name

4-26-25
Date

ANALYTICAL REPORT

October 13, 2025

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1900019
Samples Received:	09/19/2025
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

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

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7 Gl
8 Al
9 Sc

MW-103S L1900019-01

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/15/25 14:00	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604562	1	09/20/25 09:59	09/20/25 14:10	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 01:39	09/24/25 01:39	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 18:55	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:01	TMT	Mt. Juliet, TN

MW-104S L1900019-02

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 09:55	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604970	1	09/20/25 20:50	09/21/25 14:41	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 02:07	09/24/25 02:07	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 18:56	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:05	TMT	Mt. Juliet, TN

MW-110S L1900019-03

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/15/25 11:20	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604562	1	09/20/25 09:59	09/20/25 14:10	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 03:01	09/24/25 03:01	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	5	09/24/25 03:15	09/24/25 03:15	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 18:58	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:08	TMT	Mt. Juliet, TN

MW-102D L1900019-04

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 12:40	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604970	1	09/20/25 20:50	09/21/25 14:41	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 03:28	09/24/25 03:28	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:03	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:19	TMT	Mt. Juliet, TN

MW-103D L1900019-05

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/15/25 13:00	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604562	1	09/20/25 09:59	09/20/25 14:10	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 03:42	09/24/25 03:42	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:05	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:22	TMT	Mt. Juliet, TN

MW-104D L1900019-06

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 10:50	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604970	1	09/20/25 20:50	09/21/25 14:41	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604711	1	09/24/25 03:56	09/24/25 03:56	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:07	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:26	TMT	Mt. Juliet, TN

SAMPLE SUMMARY

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

MW-110D L1900019-07

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/15/25 12:00	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604562	1	09/20/25 09:59	09/20/25 14:10	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604712	1	09/23/25 22:01	09/23/25 22:01	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:08	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:29	TMT	Mt. Juliet, TN

MW-114D L1900019-08

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 13:55	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604970	1	09/20/25 20:50	09/21/25 14:41	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604712	1	09/23/25 22:13	09/23/25 22:13	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:10	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:32	TMT	Mt. Juliet, TN

MW-118D L1900019-09

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 14:35	09/19/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2604970	1	09/20/25 20:50	09/21/25 14:41	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604712	1	09/23/25 22:26	09/23/25 22:26	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604712	10	09/23/25 22:38	09/23/25 22:38	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:12	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:35	TMT	Mt. Juliet, TN

MW-102S L1900019-11

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/16/25 11:50	09/20/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2605964	1	09/22/25 23:22	09/23/25 14:26	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	1	09/25/25 21:54	09/25/25 21:54	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:13	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:38	TMT	Mt. Juliet, TN

MW-106S L1900019-12

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/17/25 09:30	09/20/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606457	1	09/23/25 08:22	09/24/25 09:15	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	10	09/25/25 22:35	09/25/25 22:35	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 18:46	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:42	TMT	Mt. Juliet, TN

MW-111S L1900019-13

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/17/25 11:25	09/20/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2605924	1	09/22/25 20:30	09/23/25 11:12	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	5	09/25/25 22:55	09/25/25 22:55	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	50	09/25/25 23:05	09/25/25 23:05	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:15	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:45	TMT	Mt. Juliet, TN

SAMPLE SUMMARY

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

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/17/25 10:10	09/20/25 09:30

MW-106D L1900019-14

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2605921	1	09/22/25 20:22	09/23/25 14:16	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	1	09/25/25 23:15	09/25/25 23:15	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:17	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:55	TMT	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/17/25 14:00	09/20/25 09:30

MW-109D L1900019-15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606457	1	09/23/25 08:22	09/24/25 09:15	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	1	09/25/25 23:45	09/25/25 23:45	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:19	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 15:58	TMT	Mt. Juliet, TN

Collected by	Collected date/time	Received date/time
Jacob Colbert	09/17/25 12:50	09/20/25 09:30

MW-115D L1900019-16

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606457	1	09/23/25 08:22	09/24/25 09:15	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2604857	1	09/25/25 23:55	09/25/25 23:55	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2605448	1	09/23/25 14:09	09/23/25 19:24	BAG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2605462	1	09/23/25 23:29	10/11/25 16:01	TMT	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.

Brittnie Boyd

Brittnie L Boyd
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	237		10.0	1	09/20/2025 14:10	WG2604562

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.29		1.00	1	09/24/2025 01:39	WG2604711
Fluoride	ND		0.150	1	09/24/2025 01:39	WG2604711
Sulfate	85.1		5.00	1	09/24/2025 01:39	WG2604711

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.537		0.200	1	09/23/2025 18:55	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	6.91		1.00	1	10/11/2025 15:01	WG2605462

MW-104S

Collected date/time: 09/16/25 09:55

SAMPLE RESULTS - 02

L1900019

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	234		10.0	1	09/21/2025 14:41	WG2604970

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	4.39		1.00	1	09/24/2025 02:07	WG2604711
Fluoride	ND		0.150	1	09/24/2025 02:07	WG2604711
Sulfate	68.4		5.00	1	09/24/2025 02:07	WG2604711

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.762		0.200	1	09/23/2025 18:56	WG2605448

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	14.8		1.00	1	10/11/2025 15:05	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	368		10.0	1	09/20/2025 14:10	WG2604562

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	3.70		1.00	1	09/24/2025 03:01	WG2604711
Fluoride	ND		0.150	1	09/24/2025 03:01	WG2604711
Sulfate	156		25.0	5	09/24/2025 03:15	WG2604711

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	2.15		0.200	1	09/23/2025 18:58	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	6.08		1.00	1	10/11/2025 15:08	WG2605462

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

MW-102D

Collected date/time: 09/16/25 12:40

SAMPLE RESULTS - 04

L1900019

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	378		10.0	1	09/21/2025 14:41	WG2604970

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.28		1.00	1	09/24/2025 03:28	WG2604711
Fluoride	ND		0.150	1	09/24/2025 03:28	WG2604711
Sulfate	22.0		5.00	1	09/24/2025 03:28	WG2604711

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.260		0.200	1	09/23/2025 19:03	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	61.1		1.00	1	10/11/2025 15:19	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	479		10.0	1	09/20/2025 14:10	WG2604562

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.12		1.00	1	09/24/2025 03:42	WG2604711
Fluoride	ND		0.150	1	09/24/2025 03:42	WG2604711
Sulfate	72.5		5.00	1	09/24/2025 03:42	WG2604711

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.263		0.200	1	09/23/2025 19:05	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	61.8		1.00	1	10/11/2025 15:22	WG2605462

MW-104D

Collected date/time: 09/16/25 10:50

SAMPLE RESULTS - 06

L1900019

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	329		10.0	1	09/21/2025 14:41	WG2604970

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.62		1.00	1	09/24/2025 03:56	WG2604711
Fluoride	ND		0.150	1	09/24/2025 03:56	WG2604711
Sulfate	23.7		5.00	1	09/24/2025 03:56	WG2604711

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.230		0.200	1	09/23/2025 19:07	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	55.0		1.00	1	10/11/2025 15:26	WG2605462

MW-110D

Collected date/time: 09/15/25 12:00

SAMPLE RESULTS - 07

L1900019

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	347		10.0	1	09/20/2025 14:10	WG2604562

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.71		1.00	1	09/23/2025 22:01	WG2604712
Fluoride	ND		0.150	1	09/23/2025 22:01	WG2604712
Sulfate	39.5		5.00	1	09/23/2025 22:01	WG2604712

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.294		0.200	1	09/23/2025 19:08	WG2605448

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	45.6		1.00	1	10/11/2025 15:29	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	322		10.0	1	09/21/2025 14:41	WG2604970

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.54		1.00	1	09/23/2025 22:13	WG2604712
Fluoride	ND		0.150	1	09/23/2025 22:13	WG2604712
Sulfate	32.5		5.00	1	09/23/2025 22:13	WG2604712

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.258		0.200	1	09/23/2025 19:10	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	51.4		1.00	1	10/11/2025 15:32	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	490		10.0	1	09/21/2025 14:41	WG2604970

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.80		1.00	1	09/23/2025 22:26	WG2604712
Fluoride	ND		0.150	1	09/23/2025 22:26	WG2604712
Sulfate	113		50.0	10	09/23/2025 22:38	WG2604712

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.272		0.200	1	09/23/2025 19:12	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	80.2		1.00	1	10/11/2025 15:35	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	202		10.0	1	09/23/2025 14:26	WG2605964

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.66		1.00	1	09/25/2025 21:54	WG2604857
Fluoride	ND		0.150	1	09/25/2025 21:54	WG2604857
Sulfate	26.3		5.00	1	09/25/2025 21:54	WG2604857

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/23/2025 19:13	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	14.1		1.00	1	10/11/2025 15:38	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1230		20.0	1	09/24/2025 09:15	WG2606457

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	13.6		10.0	10	09/25/2025 22:35	WG2604857
Fluoride	ND		1.50	10	09/25/2025 22:35	WG2604857
Sulfate	807		50.0	10	09/25/2025 22:35	WG2604857

Sample Narrative:

L1900019-12 WG2604857: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	7.91		0.200	1	09/23/2025 18:46	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	34.3		1.00	1	10/11/2025 15:42	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1150		20.0	1	09/23/2025 11:12	WG2605924

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	11.6		5.00	5	09/25/2025 22:55	WG2604857
Fluoride	ND		0.750	5	09/25/2025 22:55	WG2604857
Sulfate	721		250	50	09/25/2025 23:05	WG2604857

Sample Narrative:

L1900019-13 WG2604857: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	6.50		0.200	1	09/23/2025 19:15	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	80.3		1.00	1	10/11/2025 15:45	WG2605462

MW-106D

Collected date/time: 09/17/25 10:10

SAMPLE RESULTS - 14

L1900019

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	192		10.0	1	09/23/2025 14:16	WG2605921

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	5.26		1.00	1	09/25/2025 23:15	WG2604857
Fluoride	ND		0.150	1	09/25/2025 23:15	WG2604857
Sulfate	12.2		5.00	1	09/25/2025 23:15	WG2604857

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.250		0.200	1	09/23/2025 19:17	WG2605448

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	17.3		1.00	1	10/11/2025 15:55	WG2605462

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	367		10.0	1	09/24/2025 09:15	WG2606457

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.28		1.00	1	09/25/2025 23:45	WG2604857
Fluoride	ND		0.150	1	09/25/2025 23:45	WG2604857
Sulfate	43.8		5.00	1	09/25/2025 23:45	WG2604857

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.304		0.200	1	09/23/2025 19:19	WG2605448

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	47.7		1.00	1	10/11/2025 15:58	WG2605462

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	333		10.0	1	09/24/2025 09:15	WG2606457

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	4.60		1.00	1	09/25/2025 23:55	WG2604857
Fluoride	ND		0.150	1	09/25/2025 23:55	WG2604857
Sulfate	ND		5.00	1	09/25/2025 23:55	WG2604857

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.324		0.200	1	09/23/2025 19:24	WG2605448

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	43.0		1.00	1	10/11/2025 16:01	WG2605462

Method Blank (MB)

(MB) R4276737-1 09/20/25 14:10

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

L1898950-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1898950-10 09/20/25 14:10 • (DUP) R4276737-3 09/20/25 14:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	425	421	1	0.946		10

L1900019-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1900019-07 09/20/25 14:10 • (DUP) R4276737-4 09/20/25 14:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	347	354	1	2.00		10

Laboratory Control Sample (LCS)

(LCS) R4276737-2 09/20/25 14:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8800	100	90.0-110	

Method Blank (MB)

(MB) R4277214-1 09/21/25 14:41

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

L1899360-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1899360-04 09/21/25 14:41 • (DUP) R4277214-3 09/21/25 14:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	505	496	1	1.80		10

L1900223-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1900223-02 09/21/25 14:41 • (DUP) R4277214-4 09/21/25 14:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	212	210	1	0.948		10

Laboratory Control Sample (LCS)

(LCS) R4277214-2 09/21/25 14:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8630	98.1	90.0-110	

QUALITY CONTROL SUMMARY

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

Method Blank (MB)

(MB) R4277881-1 09/23/25 14:16

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

L1899911-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1899911-11 09/23/25 14:16 • (DUP) R4277881-3 09/23/25 14:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4270	4320	1	1.17		10

L1900420-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1900420-03 09/23/25 14:16 • (DUP) R4277881-4 09/23/25 14:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	ND	ND	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R4277881-2 09/23/25 14:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8880	101	90.0-110	

Method Blank (MB)

(MB) R4277842-1 09/23/25 11:12

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

L1899911-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1899911-01 09/23/25 11:12 • (DUP) R4277842-3 09/23/25 11:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2010	2060	1	2.46		10

L1900359-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1900359-18 09/23/25 11:12 • (DUP) R4277842-4 09/23/25 11:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	ND	ND	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R4277842-2 09/23/25 11:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8890	101	90.0-110	

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

Method Blank (MB)

(MB) R4278211-1 09/23/25 14:26

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

L1899983-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1899983-01 09/23/25 14:26 • (DUP) R4278211-3 09/23/25 14:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	137	141	1	2.88		10

L1900412-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1900412-03 09/23/25 14:26 • (DUP) R4278211-4 09/23/25 14:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	230	232	1	0.866		10

Laboratory Control Sample (LCS)

(LCS) R4278211-2 09/23/25 14:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8670	98.5	90.0-110	

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R4278334-1 09/24/25 09:15

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

L1900019-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1900019-12 09/24/25 09:15 • (DUP) R4278334-3 09/24/25 09:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1230	1210	1	1.48		10

L1900332-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1900332-04 09/24/25 09:15 • (DUP) R4278334-4 09/24/25 09:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1100	1090	1	1.09		10

Laboratory Control Sample (LCS)

(LCS) R4278334-2 09/24/25 09:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8570	97.4	90.0-110	

Method Blank (MB)

(MB) R4278226-1 09/23/25 19:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1899991-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1899991-03 09/23/25 19:29 • (DUP) R4278226-3 09/23/25 19:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.75	1.78	1	1.70		15
Sulfate	59.6	60.7	1	1.90		15

L1899991-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1899991-03 09/23/25 20:23 • (DUP) R4278226-6 09/23/25 20:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	213	209	5	1.84		15

L1899991-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1899991-04 09/23/25 20:50 • (DUP) R4278226-7 09/23/25 21:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.54	0.426	1	113	J3	15
Sulfate	24.2	24.5	1	0.964		15

L1899991-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1899991-04 09/23/25 21:31 • (DUP) R4278226-9 09/23/25 21:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	203	202	5	0.303		15

Laboratory Control Sample (LCS)

(LCS) R4278226-2 09/23/25 19:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	36.7	91.6	80.0-120	
Fluoride	8.00	7.42	92.8	80.0-120	
Sulfate	40.0	36.6	91.4	80.0-120	

L1899991-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1899991-03 09/23/25 19:29 • (MS) R4278226-4 09/23/25 19:56 • (MSD) R4278226-5 09/23/25 20:10

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	40.0	209	210	206	4.31	0.000	1	80.0-120	E V	E V	2.03	15
Fluoride	8.00	1.75	9.18	9.00	92.8	90.6	1	80.0-120			1.97	15
Sulfate	40.0	59.6	87.6	85.7	70.2	65.5	1	80.0-120	J6	J6	2.16	15

L1899991-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1899991-04 09/23/25 20:50 • (MS) R4278226-8 09/23/25 21:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	205	204	0.000	1	80.0-120	E V
Fluoride	8.00	1.54	6.89	67.0	1	80.0-120	J6
Sulfate	40.0	24.2	58.1	84.7	1	80.0-120	

Method Blank (MB)

(MB) R4278333-1 09/23/25 20:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1899979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1899979-01 09/23/25 21:24 • (DUP) R4278333-3 09/23/25 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2.74	2.72	1	0.557		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.573		15

L1900111-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1900111-02 09/24/25 00:43 • (DUP) R4278333-5 09/24/25 00:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	323	326	50	0.950		15
Fluoride	ND	ND	50	0.203		15
Sulfate	687	685	50	0.329		15

Laboratory Control Sample (LCS)

(LCS) R4278333-2 09/23/25 21:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	35.9	89.8	80.0-120	
Fluoride	8.00	7.44	93.0	80.0-120	
Sulfate	40.0	36.2	90.5	80.0-120	

L1899979-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1899979-01 09/23/25 21:24 • (MS) R4278333-4 09/23/25 21:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	2.74	42.0	98.1	1	80.0-120	
Fluoride	8.00	ND	8.28	104	1	80.0-120	
Sulfate	40.0	ND	39.9	97.6	1	80.0-120	

L1900111-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900111-02 09/24/25 00:43 • (MS) R4278333-6 09/24/25 01:08 • (MSD) R4278333-7 09/24/25 01:21

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	40.0	323	295	291	0.000	0.000	50	80.0-120	V	V	1.10	15
Fluoride	8.00	ND	ND	ND	40.3	38.9	50	80.0-120	J6	J6	1.52	15
Sulfate	40.0	687	578	575	0.000	0.000	50	80.0-120	V	V	0.486	15

Method Blank (MB)

(MB) R4279197-1 09/25/25 21:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1900019-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1900019-11 09/25/25 21:54 • (DUP) R4279197-3 09/25/25 22:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.66	7.67	1	0.0287		15
Fluoride	ND	ND	1	0.000		15
Sulfate	26.3	26.5	1	0.655		15

L1900019-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1900019-14 09/25/25 23:15 • (DUP) R4279197-6 09/25/25 23:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5.26	5.22	1	0.889		15
Fluoride	ND	ND	1	0.000		15
Sulfate	12.2	12.2	1	0.0516		15

Laboratory Control Sample (LCS)

(LCS) R4279197-2 09/25/25 21:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.3	98.4	80.0-120	
Fluoride	8.00	7.90	98.7	80.0-120	
Sulfate	40.0	39.9	99.7	80.0-120	

L1900019-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900019-11 09/25/25 21:54 • (MS) R4279197-4 09/25/25 22:14 • (MSD) R4279197-5 09/25/25 22:24

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	40.0	7.66	45.6	45.7	94.9	95.1	1	80.0-120			0.144	15
Fluoride	8.00	ND	7.97	7.98	99.7	99.8	1	80.0-120			0.0740	15
Sulfate	40.0	26.3	61.0	61.1	86.8	87.0	1	80.0-120			0.156	15

L1900019-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1900019-14 09/25/25 23:15 • (MS) R4279197-7 09/25/25 23:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	5.26	44.0	97.0	1	80.0-120	
Fluoride	8.00	ND	8.03	100	1	80.0-120	
Sulfate	40.0	12.2	49.9	94.2	1	80.0-120	

Method Blank (MB)

(MB) R4277547-1 09/23/25 18:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0233	0.200

Laboratory Control Sample (LCS)

(LCS) R4277547-2 09/23/25 18:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.925	92.5	80.0-120	

L1900019-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900019-12 09/23/25 18:46 • (MS) R4277547-4 09/23/25 18:49 • (MSD) R4277547-5 09/23/25 18:51

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	7.91	8.68	8.68	77.6	76.9	1	75.0-125			0.0903	20

Method Blank (MB)

(MB) R4285702-1 10/11/25 14:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4285702-2 10/11/25 14:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.42	108	80.0-120	

L1900176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900176-01 10/11/25 14:46 • (MS) R4285702-4 10/11/25 14:52 • (MSD) R4285702-5 10/11/25 14:55

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	100	106	105	107	103	1	75.0-125			0.203	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.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
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	LAO00356
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.

Company Name/Add

Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

Billing Information:

Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace®
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Jonathan Brown 501-847-7077

Email To: Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description: Entergy - White Bluff

City/State Collected:

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # 1145-21-080

Lab Project # GBMCBAR-ENTERGYWB

SDG # 1900019

F229

Acctnum: GBMCBAR

Template: T198831

Prelogin: P1175847

PM: 829 - Brittnie L Boyd

PB:

Shipped Via: FedEX Priority

Collected by (print): Jacob Colbert

Site/Facility ID # CADL - CCR

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
MW-101S		GW								pH	
MW-102S	G	GW	–	9/16/25	1150	3	✓	✓	✓	5.88	-11
MW-103S	G	GW	–	9/15/25	1400	3	✓	✓	✓	5.69	-01
MW-104S	G	GW	–	9/16/25	0955	3	✓	✓	✓	4.94	-02
MW-105S		GW									
MW-106S	G	GW	–	9/17/25	0930	3	✓	✓	✓	3.38	-12
MW-110S	G	GW	–	9/15/25	1120	3	✓	✓	✓	4.86	-03
MW-111S	G	GW	–	9/17/25	1125	3	✓	✓	✓	3.48	-13
MW-101D		GW									
MW-102D	G	GW	–	9/16/25	1240	3	✓	✓	✓	7.16	-04

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 4746 8276 1971

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) Mariela Duran
Date: 9/18/25
Time: 1038
Received by: (Signature) FedEx

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C TC19 5.0-0.1=4.9
Bottles Received: 18

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)

Date: 9/20/25
Time: 9:30

Hold:

Condition: NCF / [✓ OK]

Company Name/Address

Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

Billing Information:

Accounts Payable
219 Brown Ln.
Bryant, AR 72022

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Email To: Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description: **Entergy - White Bluff**

City/State Collected:

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

SDG # 1900019

Table #

Collected by (print): Jacob Colbert

Site/Facility ID # **CADL - CCR**

P.O. #

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1175847**
PM: **829 - Brittnie L Boyd**
PB:

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Shipped Via: **FedEX Priority**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
MW-103D	G	GW	–	9/15/25	1300	3	✓	✓	✓								8.15	-05
MW-104D	G	GW	–	9/16/25	1050	3	✓	✓	✓								7.22	-06
MW-105D		GW																
MW-106D	G	GW	–	9/17/25	1010	3	✓	✓	✓								9.12	-14
MW-107D		GW																
MW-108D		GW																
MW-109D	G	GW	–	9/17/25	1400	3	✓	✓	✓								7.11	-15
MW-110D	G	GW	–	9/15/25	1200	3	✓	✓	✓								8.01	-07
MW-112D		GW																
MW-113D		GW																

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

Remarks:

pH _______ Temp _______
Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier __________

Tracking # 4746 8276 1971

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) Maniela Duran
Date: 1038
Time: 9/18/25
Received by: (Signature) Fedex

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C TLA95.0-0.1=4.9
Bottles Received: 18

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)

Date: 9/20/25
Time: 9:30

Hold:

Condition: NCF / [✓ OK]

Company Name/Address:

Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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Chain of Custody Page ___ of ___

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Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

SDG # 1900019

Table #

Collected by (print): Jacob Colbert

Site/Facility ID # **CADL - CCR**

P.O. #

Acctnum: **GBMCBAR**

Template: **T198831**

Prelogin: **P1175847**

PM: **829 - Brittnie L Boyd**

PB:

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Shipped Via: **FedEX Priority**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
MW-114D	G	GW	–	9/16/25	1355	3	✓	✓	✓	7.40	-08
MW-115D	G	GW	–	9/17/25	1250	3	✓	✓	✓	7.44	-16
MW-118D	G	GW	–	9/16/25	1435	3	✓	✓	✓	6.69	-09
FIELD BLANK 1		GW									
DUPLICATE 1		GW									
FIELD BLANK 2		GW									
DUPLICATE 2		GW									
		GW									
		GW									
		GW									

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 4746 8276 1971

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) Mariela Duran
Date: 9/18/25
Time: 1038
Received by: (Signature) Fedex

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: °C TL19 5.0-0.1=4.9
Bottles Received: 18

If preservation required by Login: Date/Time

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)

Date: 9/20/25
Time: 9:30

Hold:

Condition: NCF / [✓ OK]

ANALYTICAL REPORT

September 29, 2025

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

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1900762
Samples Received:	09/23/2025
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

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

TABLE OF CONTENTS

SAMPLE SUMMARY

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

MW-101S L1900762-01

Collected by	Collected date/time	Received date/time
Jacob C	09/18/25 11:40	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 00:05	09/26/25 00:05	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:32	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:18	LD	Mt. Juliet, TN

MW-105S L1900762-02

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 13:40	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 00:59	09/26/25 00:59	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:39	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 20:58	LD	Mt. Juliet, TN

MW-101D L1900762-03

Collected by	Collected date/time	Received date/time
Jacob C	09/18/25 10:20	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 01:40	09/26/25 01:40	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:40	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:21	LD	Mt. Juliet, TN

MW-105D L1900762-04

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 12:50	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 02:07	09/26/25 02:07	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:42	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:32	LD	Mt. Juliet, TN

MW-107D L1900762-05

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 11:50	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 02:21	09/26/25 02:21	AJC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	10	09/26/25 02:34	09/26/25 02:34	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:44	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:36	LD	Mt. Juliet, TN

MW-108D L1900762-06

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 09:45	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 02:48	09/26/25 02:48	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:49	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:39	LD	Mt. Juliet, TN

SAMPLE SUMMARY

MW-112D L1900762-07

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 10:45	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 03:02	09/26/25 03:02	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:50	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:42	LD	Mt. Juliet, TN

MW-113D L1900762-08

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 08:45	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	5	09/26/25 03:15	09/26/25 03:15	AJC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	50	09/26/25 03:56	09/26/25 03:56	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:52	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:46	LD	Mt. Juliet, TN

FIELD BLANK 1 L1900762-09

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 13:10	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 04:09	09/26/25 04:09	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:54	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:49	LD	Mt. Juliet, TN

DUPLICATE 1 L1900762-10

Collected by	Collected date/time	Received date/time
Jacob C	09/18/25 10:20	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606639	1	09/23/25 17:47	09/24/25 14:14	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 04:23	09/26/25 04:23	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:55	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:52	LD	Mt. Juliet, TN

FIELD BLANK 2 L1900762-11

Collected by	Collected date/time	Received date/time
Jacob C	09/19/25 13:10	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606475	1	09/23/25 21:41	09/24/25 10:42	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 04:50	09/26/25 04:50	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:57	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:56	LD	Mt. Juliet, TN

DUPLICATE 2 L1900762-12

Collected by	Collected date/time	Received date/time
Jacob C	09/18/25 11:40	09/23/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2606475	1	09/23/25 21:41	09/24/25 10:42	AMG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2606936	1	09/26/25 05:04	09/26/25 05:04	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2606869	1	09/24/25 09:03	09/24/25 14:59	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2607284	1	09/25/25 00:52	09/28/25 21:59	LD	Mt. Juliet, TN

CASE NARRATIVE

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

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

Brittnie Boyd

Brittnie L Boyd
Project Manager

MW-101S
Collected date/time: 09/18/25 11:40

SAMPLE RESULTS - 01
L1900762

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	212		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.49		1.00	1	09/26/2025 00:05	WG2606936
Fluoride	ND		0.150	1	09/26/2025 00:05	WG2606936
Sulfate	50.8	J6	5.00	1	09/26/2025 00:05	WG2606936

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	09/24/2025 14:32	WG2606869

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	15.1		1.00	1	09/28/2025 21:18	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	202		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.18		1.00	1	09/26/2025 00:59	WG2606936
Fluoride	ND		0.150	1	09/26/2025 00:59	WG2606936
Sulfate	30.8		5.00	1	09/26/2025 00:59	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/24/2025 14:39	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	17.0		1.00	1	09/28/2025 20:58	WG2607284

MW-101D

Collected date/time: 09/18/25 10:20

SAMPLE RESULTS - 03

L1900762

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	363		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.20		1.00	1	09/26/2025 01:40	WG2606936
Fluoride	ND		0.150	1	09/26/2025 01:40	WG2606936
Sulfate	81.4		5.00	1	09/26/2025 01:40	WG2606936

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	09/24/2025 14:40	WG2606869

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	54.1		1.00	1	09/28/2025 21:21	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	346		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.39		1.00	1	09/26/2025 02:07	WG2606936
Fluoride	ND		0.150	1	09/26/2025 02:07	WG2606936
Sulfate	28.7		5.00	1	09/26/2025 02:07	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.273		0.200	1	09/24/2025 14:42	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	55.1		1.00	1	09/28/2025 21:32	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	514		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	20.7		1.00	1	09/26/2025 02:21	WG2606936
Fluoride	ND		0.150	1	09/26/2025 02:21	WG2606936
Sulfate	113		50.0	10	09/26/2025 02:34	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.310		0.200	1	09/24/2025 14:44	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	74.0		1.00	1	09/28/2025 21:36	WG2607284

SAMPLE RESULTS - 06

L1900762

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	490		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	12.5		1.00	1	09/26/2025 02:48	WG2606936
Fluoride	ND		0.150	1	09/26/2025 02:48	WG2606936
Sulfate	47.7		5.00	1	09/26/2025 02:48	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.334		0.200	1	09/24/2025 14:49	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	66.1		1.00	1	09/28/2025 21:39	WG2607284

MW-112D

Collected date/time: 09/19/25 10:45

SAMPLE RESULTS - 07

L1900762

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	331		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	6.90		1.00	1	09/26/2025 03:02	WG2606936
Fluoride	ND		0.150	1	09/26/2025 03:02	WG2606936
Sulfate	5.83		5.00	1	09/26/2025 03:02	WG2606936

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.277		0.200	1	09/24/2025 14:50	WG2606869

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	42.8		1.00	1	09/28/2025 21:42	WG2607284

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	1200		20.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	13.3		5.00	5	09/26/2025 03:15	WG2606936
Fluoride	ND		0.750	5	09/26/2025 03:15	WG2606936
Sulfate	583		250	50	09/26/2025 03:56	WG2606936

Sample Narrative:

L1900762-08 WG2606936: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010D

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.493		0.200	1	09/24/2025 14:52	WG2606869

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	191		1.00	1	09/28/2025 21:46	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	09/26/2025 04:09	WG2606936
Fluoride	ND		0.150	1	09/26/2025 04:09	WG2606936
Sulfate	ND		5.00	1	09/26/2025 04:09	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/24/2025 14:54	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	09/28/2025 21:49	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	366		10.0	1	09/24/2025 14:14	WG2606639

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.12		1.00	1	09/26/2025 04:23	WG2606936
Fluoride	ND		0.150	1	09/26/2025 04:23	WG2606936
Sulfate	80.3		5.00	1	09/26/2025 04:23	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/24/2025 14:55	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	53.4		1.00	1	09/28/2025 21:52	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	09/24/2025 10:42	WG2606475

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	09/26/2025 04:50	WG2606936
Fluoride	ND		0.150	1	09/26/2025 04:50	WG2606936
Sulfate	ND		5.00	1	09/26/2025 04:50	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/24/2025 14:57	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	09/28/2025 21:56	WG2607284

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	210		10.0	1	09/24/2025 10:42	WG2606475

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.70		1.00	1	09/26/2025 05:04	WG2606936
Fluoride	ND		0.150	1	09/26/2025 05:04	WG2606936
Sulfate	49.1		5.00	1	09/26/2025 05:04	WG2606936

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	09/24/2025 14:59	WG2606869

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	15.2		1.00	1	09/28/2025 21:59	WG2607284

Method Blank (MB)

(MB) R4278437-1 09/24/25 10:42

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

L1900257-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1900257-01 09/24/25 10:42 • (DUP) R4278437-3 09/24/25 10:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1960	1980	1	0.762		10

L1900762-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1900762-12 09/24/25 10:42 • (DUP) R4278437-4 09/24/25 10:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	210	214	1	1.89		10

Laboratory Control Sample (LCS)

(LCS) R4278437-2 09/24/25 10:42

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8730	99.2	90.0-110	

Method Blank (MB)

(MB) R4278412-1 09/24/25 14:14

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

L1900661-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1900661-01 09/24/25 14:14 • (DUP) R4278412-3 09/24/25 14:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1970	1980	1	0.507		10

L1900762-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1900762-10 09/24/25 14:14 • (DUP) R4278412-4 09/24/25 14:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	366	373	1	1.89		10

Laboratory Control Sample (LCS)

(LCS) R4278412-2 09/24/25 14:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8610	97.8	90.0-110	

Method Blank (MB)

(MB) R4279715-1 09/25/25 23:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1900762-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1900762-01 09/26/25 00:05 • (DUP) R4279715-3 09/26/25 00:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.49	7.49	1	0.0334		15
Fluoride	ND	ND	1	0.000		15
Sulfate	50.8	51.3	1	1.12		15

L1900762-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1900762-02 09/26/25 00:59 • (DUP) R4279715-6 09/26/25 01:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5.18	5.21	1	0.489		15
Fluoride	ND	ND	1	0.000		15
Sulfate	30.8	29.3	1	4.74		15

Laboratory Control Sample (LCS)

(LCS) R4279715-2 09/25/25 23:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.9	97.2	80.0-120	
Fluoride	8.00	7.99	99.9	80.0-120	
Sulfate	40.0	39.7	99.2	80.0-120	

L1900762-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900762-01 09/26/25 00:05 • (MS) R4279715-4 09/26/25 00:32 • (MSD) R4279715-5 09/26/25 00:46

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	7.49	45.7	46.2	95.4	96.8	1	80.0-120			1.23	15
Fluoride	8.00	ND	8.16	8.26	102	103	1	80.0-120			1.15	15
Sulfate	40.0	50.8	81.0	81.9	75.7	78.0	1	80.0-120	J6	J6	1.12	15

L1900762-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1900762-02 09/26/25 00:59 • (MS) R4279715-7 09/26/25 01:26

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	5.18	44.8	99.0	1	80.0-120	
Fluoride	8.00	ND	8.22	103	1	80.0-120	
Sulfate	40.0	30.8	64.4	84.2	1	80.0-120	

Method Blank (MB)

(MB) R4278112-1 09/24/25 14:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0233	0.200

Laboratory Control Sample (LCS)

(LCS) R4278112-2 09/24/25 14:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.960	96.0	80.0-120	

L1900762-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900762-01 09/24/25 14:32 • (MS) R4278112-4 09/24/25 14:35 • (MSD) R4278112-5 09/24/25 14:37

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	0.961	0.963	93.0	93.2	1	75.0-125			0.223	20

Method Blank (MB)

(MB) R4279532-1 09/28/25 20:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4279532-2 09/28/25 20:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.19	104	80.0-120	

L1900762-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900762-02 09/28/25 20:58 • (MS) R4279532-4 09/28/25 21:05 • (MSD) R4279532-5 09/28/25 21:08

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	17.0	22.5	21.4	110	88.1	1	75.0-125			5.05	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.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
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
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

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

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	LAO00356
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.

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk: 47

Chain of Custody Page ___ of ___

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

L1906362

SDG #

E040

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1175847**
PM: **829 - Brittnie L Boyd**
PB: 09/03/25 lu
Shipped Via: **FedEX Priority**

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

Collected by (print): Jacob Calbert

Site/Facility ID #
CADL - CCR

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
MW-101S	G	GW		9-18-25	1140	3	X	X	X	pH 4.88	01
MW-102S		GW									
MW-103S		GW									
MW-104S		GW									
MW-105S	G	GW		9-19-25	1340	3	X	X	X	5.47	02
MW-106S		GW									
MW-110S		GW									
MW-111S		GW									
MW-101D	G	GW		9-18-25	1020	3	X	X	X	6.00	03
MW-102D		GW									

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 4718 7717 3526

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)	
Jacob Calbert	9-22-25	0940		Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: multi °C Bottles Received: 36
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9-23-25 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1906762

Table #

Acctnum: **GBMCBAR**
Template:**T198831**
Prelogin: **P1175847**
PM: **829 - Brittnie L Boyd**
PB: 09/03/25CB
Shipped Via: **FedEX Priority**

Collected by (print): Jacob Colbert

Site/Facility ID #
CADL - CCR

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N___ Y ✓

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres							pH Remarks	Sample # (lab only)
MW-103D		GW															
MW-104D		GW														~~[illegible]~~	
MW-105D	G	GW		9-19-25	1250	3	X	X	X							6.96	04
MW-106D		GW															
MW-107D	G	GW		9-19-25	1150	3	X	X	X							6.89	05
MW-108D	G	GW		9-19-25	0945	3	X	X	X							6.64	06
MW-109D		GW															
MW-110D		GW															
MW-112D	G	GW		9-19-25	1045	3	X	X	X							7.74	07
MW-113D	G	GW		9-19-25	0845	3	X	X	X							6.11	08

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

Remarks:

pH _______ Temp _______

Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # multi

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	
Jacob Colbert	9-22-25	0940			

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C multi	Bottles Received: 36	If preservation required by Login: Date/Time

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9-23-25	Time: 0845	Hold:	Condition: NCF / [✓ OK]

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Report to:
Jonathan Brown 501-847-7077

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description: **Entergy - White Bluff**

City/State Collected: Redfield AR

Please Circle: PT MT [✓ CT] ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

Collected by (print): Jacob Colbert

Site/Facility ID # **CADL - CCR**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1900962

Table #

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1175847**
PM: **829 - Brittnie L Boyd**
PB: 09/03/25

Shipped Via: **FedEX Priority**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks pH	Sample # (lab only)
MW-114D		GW									
MW-115D		GW									
MW-118D		GW									
FIELD BLANK 1	G	GW		9-19-25	1310	3	X	X	X		09
DUPLICATE 1 (MW-101D)	G	GW		9-18-25	1020	3	X	X	X	6.00	10
FIELD BLANK 2	G	GW		9-19-25	1310	3	X	X	X		11
DUPLICATE 2 (MW-1015)	G	GW		9-18-25	1140	3	X	X	X	4.88	12
		GW									
		GW									
		GW									

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

Remarks:

pH _______ Temp _______
Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # multi

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)		
Jacob Colbert	9-22-25	0940		Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: multi °C Bottles Received: 36	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) E. Dawson 17	Date: 9-23-25 Time: 0845	Hold: Condition: NCF / [✓ OK]

DC#_Title: Excel Form Template
Effective Date:

Multiple Parcel Form

L# L1900762

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
4718 2717 3526	TLA9	3.6	-0.1	3.5	Yes / No / [✓ Not Present]
~~8718~~					Yes / No / Not Present
4718 2717 3515	TLA9	4.0	-0.1	3.9	Yes / No / [✓ Not Present]
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Name

9-23-25 / 0845
Date

APPENDIX D

FIELD SAMPLING FORMS

50mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-101S

SAMPLE ID: MW-101S

DATE: 4/29/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 49.10

STATIC DEPTH TO WATER (feet): 37.15

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 46'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1100

PURGING ENDED AT: 1150

TOTAL VOLUME PURGED (gallons): .462

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) μmhos/cm or [✓ μS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1105	.066	.066	.0132	37.32	7.13	24.06	102	4.54	123	15.2	
1110	.066	.132			6.07	23.82	283	1.61	148	14.1	
1115	.066	.198			6.05	23.69	297	1.11	152	8.4	
1120	.066	.264		37.43	6.06	23.83	301	1.00	151	9.7	
1125	.066	.132			6.08	23.81	299	.97	149	5.8	
1130	.066	.198			5.98	23.57	289	.94	144	5.0	
1135	.066	.264		37.43	5.90	23.55	275	.69	128	4.1	
1140	.066	.33			5.85	23.65	269	.55	119	3.7	
1145	.066	.396			5.85	23.63	266	.53	113	3.9	
1150	.066	.462		37.45	5.85	23.85	266	.51	112	3.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1150

SAMPLING ENDED AT: 1158

PUMP OR TUBING DEPTH IN WELL (feet): 46'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ μm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

125mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-101D

SAMPLE ID: MW-101D

DATE: 4/29/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 116.0

STATIC DEPTH TO WATER (feet): 96.75

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 113'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1220

PURGING ENDED AT: 1310

TOTAL VOLUME PURGED (gallons): 1.66

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1225	.165	.165	.0330	97.09	6.57	25.33	485	1.34	125	41.3	
1230	.165	.33			6.72	24.46	522	0.66	119	42.2	
1235	.165	.495			6.74	24.19	531	0.55	120	31.3	
1240	.165	.66		97.12	6.70	23.79	535	0.53	100	26.3	
1245	.165	.825			6.79	23.62	534	0.50	50	21.3	
1250	.165	.99			6.80	23.67	538	0.43	12	18.0	
1255	.165	1.16		97.20	6.82	23.87	542	0.42	-10	14.8	
1300	.165	1.33			6.83	23.84	545	0.45	-23	10.5	
1305	.165	1.50			6.84	23.84	548	0.43	-28	10.8	
1310	.165	1.66		97.22	6.85	23.81	549	0.43	-32	10.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1310

SAMPLING ENDED AT: 1329

PUMP OR TUBING DEPTH IN WELL (feet): 113'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: ______ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

80mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar.

WELL NO: MW-102S

SAMPLE ID: MW-102S

DATE: 4/28/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 53.16

STATIC DEPTH TO WATER (feet): 33.67

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 50'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1120

PURGING ENDED AT: 1215

TOTAL VOLUME PURGED (gallons): 1.266

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1125	.106	.106	.0211	34.20	7.43	28.19	380	5.68	-40	87.6	
1130	.106	.212			6.80	30.01	329	2.17	28	107	
1135	.106	.318			6.42	32.61	233	4.22	72	91.3	
1140	.106	.424		34.82	6.36	32.86	200	3.81	90	74.0	
1145	.106	.53			6.32	33.42	189	3.47	97	67.1	
1150	.106	.636			6.20	33.19	185	3.18	112	60.6	
1155	.106	.742		35.15	6.12	33.42	184	2.89	105	59.4	
1200	.106	.848			6.21	34.12	182	2.7	102	55.1	
1205	.106	.954			6.19	34.20	180	2.44	110	45.2	
1210	.106	1.160		35.22	6.19	34.18	179	2.26	104	43.1	
1215	.106	1.266		35.25	6.25	34.03	179	2.24	108	40.9	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1215

SAMPLING ENDED AT: 1232

PUMP OR TUBING DEPTH IN WELL (feet): 50'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			SEE		COC —				
	—								

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

120 ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar.

WELL NO: MW-102D

SAMPLE ID: MW-102D

DATE: 4/28/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 111.75

STATIC DEPTH TO WATER (feet): 91.20

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 107'

WELL SCREEN INTERVAL DEPTH: ~~feet to~~ feet

PURGING INITIATED AT: 1240

PURGING ENDED AT: 1320

TOTAL VOLUME PURGED (gallons): 1.27

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1245	.159	.159	.0317	91.42	6.59	32.02	247	1.28	68	926	
1250	.159	.318	|		7.04	29.90	425	0.88	-12	73.2	
1255	.159	.477	|		7.35	28.14	543	0.90	-53	54.6	
1300	.159	.636	|	93.13	7.43	27.34	565	0.95	-67	49.0	
1305	.159	.795	|		7.39	27.15	568	0.92	-70	52.6	
1310	.159	.954	|		7.30	26.45	577	.96	-67	49.2	
1315	.159	1.11	|	95.33	7.29	27.04	579	.92	-69	47.7	
1320	.159	1.27	|	95.82	7.28	26.77	579	.95	-69	46.1	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1320

SAMPLING ENDED AT: 1356

PUMP OR TUBING DEPTH IN WELL (feet): 107'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] FILTER SIZE: ______ µm
Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

50mL/min

.0132×5= .066

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, AR

WELL NO: MW-103S | SAMPLE ID: MW-103S | DATE: 4/22/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/8"	TOTAL WATER DEPTH (feet): 23.1	STATIC DEPTH TO WATER (feet): 16.19	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22.5'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1625	PURGING ENDED AT: 1705	TOTAL VOLUME PURGED (gallons): .462

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1635	.066	.066	.0132	16.2	5.18	25.65	241	3.86	365	124	
1640	.066	.132			4.88	23.11	202	3.21	371	132	
1645	.066	.198		16.48	4.83	21.62	174	3.2	383	131	
1650	.066	.264			4.79	21.3	167	3.04	394	120	
1655	.066	.33			4.84	20.75	165	3.02	399	104	
1700	.066	.396		16.92	4.86	20.55	164	3.02	400	98.6	
1705	.066	.462		17.04	4.86	20.32	163	3.02	402	99.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): MSD	SAMPLING INITIATED AT: 1705	SAMPLING ENDED AT:

PUMP OR TUBING DEPTH IN WELL (feet): 22.5'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)] | DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
	—	SEE		COC	—				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

125mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-103D

SAMPLE ID: MW-103D

DATE: 4/29/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 85.1

STATIC DEPTH TO WATER (feet): 41.44

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 66'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0850

PURGING ENDED AT: 0925

TOTAL VOLUME PURGED (gallons): 1.16

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0855	.165	.165	.0330	41.87	6.33	22.55	541	3.08	216	18.5	
0900	.165	.33			6.95	21.90	726	1.25	184	5.0	
0905	.165	.495			7.03	21.75	750	0.90	171	3.9	
0910	.165	.660		44.70	7.08	21.88	756	0.76	162	2.7	
0915	.165	.825			7.12	21.87	758	0.66	156	0.0	
0920	.165	.99			7.14	21.83	759	0.63	152	2.1	
0925	.165	1.16		47.43	7.16	21.79	759	0.60	149	2.4	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 0925

SAMPLING ENDED AT: 0940

PUMP OR TUBING DEPTH IN WELL (feet): 66'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
		—		SEE	COC	—	—		

REMARKS: Horiba calibrated prior to purging.

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ak

WELL NO: ~~MW~~ MW-1045	SAMPLE ID: MW-1045	DATE: 4-28-25

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/8	TOTAL WATER DEPTH (feet): 40.15	STATIC DEPTH TO WATER (feet): 28.96	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 38'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 0905	PURGING ENDED AT: 1000	TOTAL VOLUME PURGED (gallons): 1.42

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) μmhos/cm or [✓ μS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0910	.13	.13	.0026	29.42	4.23	22.9	1760	2.94	303	46.0	
0915	.13	.26			4.80	23.88	175	1.86	217	59.9	
0920	.13	.39			4.81	24.37	260	1.35	216	83.0	
0925	.13	.52		29.74	4.87	24.50	250	1.03	209	78.0	
0930	.13	.65			4.96	24.64	245	0.83	201	70.8	
0935	.13	.78			5.01	24.97	246	0.73	198	64.4	
0940	.13	.91		29.86	4.94	25.23	243	0.69	195	52.3	
0945	.13	1.04			5.03	25.33	242	0.60	188	46.0	
0950	.13	1.17			5.05	25.44	239	0.55	183	35.0	
0955	.13	1.29		29.92	5.00	25.47	237	0.56	181	34.1	
1000	.13	1.42		29.92	5.07	25.55	236	0.53	181	33.6	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): MSD	SAMPLING INITIATED AT: 1000	SAMPLING ENDED AT: 1007

PUMP OR TUBING DEPTH IN WELL (feet): 38'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: _____ μm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)] DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:
Horiba Calibrated Prior to purging.

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS
pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

91.20

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar.	
WELL NO: MW-104D	SAMPLE ID: MW-104D	DATE: 4/28/25

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/8	TOTAL WATER DEPTH (feet): 106.22	STATIC DEPTH TO WATER (feet): 86.57	PURGE PUMP TYPE OR BAILER: BD

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 104'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1015	PURGING ENDED AT: 1045	TOTAL VOLUME PURGED (gallons): .78

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1020	.13	.13	.0026	87.45	5.89	25.65	270	4.48	127	33.8	
1026	.13	.26			6.76	24.88	442	4.60	-3	36.1	
1030	.13	.39			7.11	24.84	518	4.87	-64	22.4	
1035	.13	.52		88.89	7.22	24.86	528	4.82	-90	23.3	
1040	.13	.65			7.29	24.82	530	5.07	-99	23.5	
1045	.13	.78		90.70	7.24	24.40	531	5.15	-99	21.8	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): MSD	SAMPLING INITIATED AT: 1045	SAMPLING ENDED AT: 1105
PUMP OR TUBING DEPTH IN WELL (feet): 104'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING Y [✓ N] (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar.	
WELL NO: MW-105S	SAMPLE ID: MW-105S	DATE: 4/30/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/8"	TOTAL WATER DEPTH (feet): 46.31	STATIC DEPTH TO WATER (feet): 27.64	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet − feet) X gallons/foot = gallons
N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons
N/A

PUMP OR TUBING DEPTH IN WELL (feet): 45'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1215	PURGING ENDED AT: 1245	TOTAL VOLUME PURGED (gallons): .78

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1220	.13	.13	.0026	28.06	6.82	32.00	149	4.01	57	21.8	
1225	.13	.26			5.79	31.74	194	1.34	99	22.8	
1230	.13	.39			5.78	32.21	200	0.65	97	21.2	
1235	.13	.52		28.45	5.83	32.14	202	0.49	94	21.2	
1240	.13	.65		–	5.81	32.14	201	0.46	94	22.1	
1245	.13	.78		28.55	5.85	31.86	200	0.46	93	22.2	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): MSD	SAMPLING INITIATED AT: 1245	SAMPLING ENDED AT: 1303
PUMP OR TUBING DEPTH IN WELL (feet): 45'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING Y [✓ N (replaced)]	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			—	SEE	COC	—			

REMARKS:
[illegible] ated p

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

120mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff | SITE LOCATION: Redfield, Ar

WELL NO: MW-105D | SAMPLE ID: MW-105D | DATE: 4/29/25

PURGING DATA

WELL DIAMETER (inches): 2'
TUBING DIAMETER (inches): 1/8
TOTAL WATER DEPTH (feet): 110.11
STATIC DEPTH TO WATER (feet): 79.84
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons N/A

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1350
PURGING ENDED AT: 1420
TOTAL VOLUME PURGED (gallons): .954

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1355	.159	.159		79.84	7.33	27.17	560	1.95	-108	45.1	
1400	.159	.318			7.37	26.45	563	2.50	-128	30.2	
1405	.159	.477			7.41	26.13	558	2.94	-139	14.8	
1410	.159	.636		83.15	7.45	25.64	557	3.54	-144	10.7	
1415	.159	.795			7.47	25.43	560	3.35	-146	10.2	
1420	.159	.954		84.35	7.49	25.51	561	3.62	-148	9.9	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1420
SAMPLING ENDED AT: 1436

PUMP OR TUBING DEPTH IN WELL (feet): 100'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y N
Filtration Equipment Type:
FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
		—		See	COC		—		

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

125mL/min
5 x 0.0330 = .165-

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar.

WELL NO: MW-106S
SAMPLE ID: MW-106S
DATE: 4/22/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 25.93
STATIC DEPTH TO WATER (feet): 9.01
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME =** (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1535
PURGING ENDED AT: 1610
TOTAL VOLUME PURGED (gallons): 1.15

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1540	.165	.165	0.0330	9.2	4.05	28.75	1650	1.51	427	9.0	
1545	.165	.33			4.00	28.57	1770	0.88	429	4.7	
1550	.165	.495			4.0	28.28	1800	0.64	426	4.9	
1555	.165	.66		9.2	4.02	28.4	1790	0.57	421	4.8	
1600	.165	.825			4.03	27.99	1780	0.49	416	2.9	
1605	.165	.99			4.03	27.23	1790	0.47	417	2.8	
1610	.165	1.15		9.22	4.03	27.18	1780	0.43	417	1.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1610
SAMPLING ENDED AT:

PUMP OR TUBING DEPTH IN WELL (feet): 22'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:
FILTER SIZE: ______ μm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

GROUNDWATER SAMPLING LOG

125 mL/min

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-106D

SAMPLE ID: MW-106D

DATE: 4/30/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 86.94

STATIC DEPTH TO WATER (feet): 42.32'

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

PUMP OR TUBING DEPTH IN WELL (feet): 62'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1115

PURGING ENDED AT: 1155

TOTAL VOLUME PURGED (gallons): 1.32

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1120	.165	.165	.0330	43.68	7.8	28.10	331	4.03	9	21.8	
1125	.165	.33			7.34	28.73	554	3.40	-109	19.0	
1130	.165	.495			7.36	28.88	568	3.21	-126	22.1	
1135	.165	.66		44.93	7.41	28.73	560	3.46	-133	22.9	
1140	.165	.825			7.44	28.60	580	3.49	-141	16.5	
1145	.165	.99			7.51	30.03	598	3.45	-148	16.6	
1150	.165	1.15		47.48	7.57	30.45	591	3.42	-151	16.1	
1155	.165	1.32		48.13	7.57	30.29	591	3.37	-147	15.9	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1155

SAMPLING ENDED AT: 1201

PUMP OR TUBING DEPTH IN WELL (feet): 62'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff | SITE LOCATION: Redfield, Ar.

WELL NO: MW-107D | SAMPLE ID: MW-107D | DATE: 4/30/25

PURGING DATA

WELL DIAMETER (inches): 2" | TUBING DIAMETER (inches): 1/8" | TOTAL WATER DEPTH (feet): 67.25 | STATIC DEPTH TO WATER (feet): 21.4 | PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 40' | WELL SCREEN INTERVAL DEPTH: feet to feet | PURGING INITIATED AT: 1000 | PURGING ENDED AT: 1045 | TOTAL VOLUME PURGED (gallons): 1.17

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1005	.13	.13	.0026	22.89	7.14	28.78	810	5.51	-12	8.6	
1010	.13	.26			7.18	27.82	822	5.83	-120	6.1	
1015	.13	.39			7.19	28.47	832	6.51	-129	8.4	
1020	.13	.52		24.78	7.23	30.22	834	7.10	-138	6.3	
1025	.13	.65			7.26	29.84	838	2.00	-142	5.3	
1030	.13	.78			7.18	28.36	821	5.94	-140	5.5	
1035	.13	.91		27.55	7.26	25.99	811	5.89	-140	5.2	
1040	.13	1.04			7.26	26.40	810	5.85	-139	5.7	
1045	.13	1.17		29.15	7.26	25.77	808	5.47	-137	5.2	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD | SAMPLER(S) SIGNATURE(S): MSD | SAMPLING INITIATED AT: 1045 | SAMPLING ENDED AT: 1103

PUMP OR TUBING DEPTH IN WELL (feet): 40' | TUBING MATERIAL CODE: | FIELD-FILTERED: Y [✓ N] Filtration Equipment Type: | FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)] | DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, Ar.
WELL NO: MW-108D
SAMPLE ID: MW-108D
DATE: 4/23/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 80.02
STATIC DEPTH TO WATER (feet): 44.79
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 65'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1205
PURGING ENDED AT: 1240
TOTAL VOLUME PURGED (gallons): .91

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1210	.13	.13	0.026	45.51	7.21	25.48	463	3.08	22	4.5	
1215	.13	.26			7.21	23.7	722	1.01	-58	3.3	
1220	.13	.39			7.22	23.31	727	.86	-66	6.1	
1225	.13	.52		48.28	7.22	23.18	730	0.73	-71	1.0	
1230	.13	.65			7.23	23.21	730	0.63	-76	1.3	
1235	.13	.78		50.8	7.23	23.76	733	0.63	-80	2.1	
1240	.13	.91			7.2	23.85	742	0.6	-79	4.5	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1240
SAMPLING ENDED AT: 1253
PUMP OR TUBING DEPTH IN WELL (feet): 65'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

125 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar.

WELL NO: MW-109D

SAMPLE ID: MW-109D

DATE: 4/23/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 111.32

STATIC DEPTH TO WATER (feet): 78.85

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100'

WELL SCREEN INTERVAL DEPTH: ~~feet to~~ feet

PURGING INITIATED AT: 1100

PURGING ENDED AT: 1125

TOTAL VOLUME PURGED (gallons): .825

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1105	.165	.165	.0330	79.17	7.41	23.83	147	3.91	120	3.0	
1110	.165	.33			7.16	23.44	508	1.98	-19	3.8	
1115	.165	.495			7.17	22.91	550	1.85	-51	2.8	
1120	.165	.66		81.85	7.23	23.57	559	1.87	-55	2.6	
1125	.165	.825		83.01	7.23	23.17	568	1.94	-52	3.8	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1125

SAMPLING ENDED AT: 1045

PUMP OR TUBING DEPTH IN WELL (feet): 100'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			SEE COC						

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

100 mL/min

0.026 0.264 g/min x5 - 1.32 gal

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-110S

SAMPLE ID: MW-110S

DATE: 4/22/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 23.34

STATIC DEPTH TO WATER (feet): 9.87

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1255

PURGING ENDED AT: 1335

TOTAL VOLUME PURGED (gallons): 1.04

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1300	0.13	0.13	0.026	9.87	4.00	23.2	712	2.11	393	10.3	
1305	0.13	0.26			3.95	24.8	679	1.56	400	17.8	
1310	0.13	0.39			3.96	26.09	651	1.28	408	29.5	
1315	0.13	0.52			4.00	26.48	621	1.13	414	37.3	
1320	0.13	0.65		10.25	4.06	26.51	611	1.03	413	46.5	
1325	0.13	0.78			4.15	26.73	604	.95	410	51.7	
1330	0.13	0.91			4.21	26.99	609	.90	406	54.4	
1335	0.13	1.04	↓	10.33	4.17	27.20	622	.97	404	55	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1335

SAMPLING ENDED AT: 1350

PUMP OR TUBING DEPTH IN WELL (feet): 22'

TUBING MATERIAL CODE: N/A

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: ______ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar.

WELL NO: MW-110D

SAMPLE ID: MW-110D

DATE: 4/29/25

PURGING DATA

WELL DIAMETER (inches): 4"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 84.38

STATIC DEPTH TO WATER (feet): 33.62

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 66'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0955

PURGING ENDED AT: 1030

TOTAL VOLUME PURGED (gallons): .91

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1000	.13	.13	.0026	33.65	8.70	23.25	441	4.70	87	38.0	
1005	.13	.26			7.21	23.32	505	1.62	-35	25.8	
1010	.13	.39			7.17	23.18	544	0.68	-75	24.9	
1015	.13	.52		34.13	7.17	23.09	550	0.58	-85	24.8	
1020	.13	.65			7.18	23.03	550	0.67	-91	21.0	
1025	.13	.78			7.19	22.98	551	0.72	-95	19.9	
1030	.13	.91		34.81	7.21	22.97	551	0.74	-98	21.1	Sulfur smell

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1030

SAMPLING ENDED AT: 1044

PUMP OR TUBING DEPTH IN WELL (feet): 66'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]

FILTER SIZE: ____ µm

Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
		—	—	SEE	COC	—			

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR.
WELL NO: MW-111S
SAMPLE ID: MW-111S
DATE: 4/22/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 23.32
STATIC DEPTH TO WATER (feet): 13.43
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1410
PURGING ENDED AT: 1500
TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or ~~% saturation~~	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1415	0.13	0.13	0.026	13.43	3.88	30.03	1630	0.80	454	35.2	
1420	0.13	0.26			3.89	29.63	1630	1.04	452	31.7	
1425	0.13	0.39			3.92	28.85	1600	1.03	451	31.6	
1430	0.13	0.52		13.58	3.98	29.23	1570	1.08	451	21.6	
1435	0.13	0.65			4.01	29.35	1570	1.01	453	15.3	
1440	0.13	0.78			4.02	29.3	1560	1.03	454	11.9	
1445	0.13	0.91		13.62	4.0	27.24	1570	1.06	457	8.4	
1450	0.13	1.04			4.0	26.16	1570	1.01	461	6.3	
1455	0.13	1.17			4.01	26.91	1570	0.98	462	6.1	
1500	0.13	1.30		13.63	4.01	26.72	1580	0.97	464	5.9	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1500
SAMPLING ENDED AT: 1505
PUMP OR TUBING DEPTH IN WELL (feet): 22'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:
FILTER SIZE: ______ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar

WELL NO MW - 112D	SAMPLE ID: MW- 112D	DATE: 4/23/25

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/8"	TOTAL WATER DEPTH (feet): 113.31	STATIC DEPTH TO WATER (feet): 87.48	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100'	WELL SCREEN INTERVAL DEPTH: ~~feet to~~ feet	PURGING INITIATED AT: 1315	PURGING ENDED AT: 1345	TOTAL VOLUME PURGED (gallons): .78

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1320	.13	.13	.026	87.48	7.28	25.23	336	4.08	-15	2.3	
1325	.13	.26			7.22	24.61	376	3.33	-17	0.2	
1330	.13	.39			7.27	24.01	479	2.75	-77	0.0	
1335	.13	.52		88.14	7.28	23.65	492	2.86	-89	0.2	
1340	.13	.65			7.28	23.40	494	2.90	-92	0.1	
1345	.13	.78		88.65	7.28	23.26	495	2.89	-92	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: LC/MSD	SAMPLER(S) SIGNATURE(S): MSD	SAMPLING INITIATED AT: 1345	SAMPLING ENDED AT: 1404

PUMP OR TUBING DEPTH IN WELL (feet): 100'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ______ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced) DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

75 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-113D

SAMPLE ID: MW-113D

DATE: 4/30/25

PURGING DATA

WELL DIAMETER (inches): 4"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 46.81'

STATIC DEPTH TO WATER (feet): 9.45

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 30'

WELL SCREEN INTERVAL DEPTH: ~~feet to~~ feet

PURGING INITIATED AT: 0900

PURGING ENDED AT: 0925

TOTAL VOLUME PURGED (gallons): .495

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0905	.099	.099	.0198	9.61	6.28	26.62	1200	4.66	190	13.3	
0910	.099	.198			6.81	25.4	1490	3.04	174	1.1	
0915	.099	.297			6.83	24.79	1500	3.06	178	0.4	
0920	.099	.396		10.23	6.84	24.41	1500	3.02	181	1.8	
0925	.099	.495		10.41	6.85	24.51	1510	2.92	184	0.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 0925

SAMPLING ENDED AT: 0939

PUMP OR TUBING DEPTH IN WELL (feet): 30'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: ______ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SFF	TOC				

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

22x50

125mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR.

WELL NO: MW-114D

SAMPLE ID: MW-114D

DATE: 4/23/25

PURGING DATA

WELL DIAMETER (inches): 4"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 91.18

STATIC DEPTH TO WATER (feet): 60.25

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 84'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1420

PURGING ENDED AT: 1450

TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1425	.165	.165	.0330	60.25	7.74	27.06	80	5.29	28	2.9	
1430	.165	.33			7.30	26.77	417	2.60	-35	0.6	
1435	.165	.495			7.32	25.59	489	2.52	-82	0.0	
1440	.165	.66		60.80	7.34	24.64	506	2.90	-93	0.0	
1445	.165	.825			7.35	24.22	509	2.92	-96	0.0	
1450	.165	.99		61.18	7.36	23.91	510	2.82	-95	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): MSD

SAMPLING INITIATED AT: 1450

SAMPLING ENDED AT: 1510

PUMP OR TUBING DEPTH IN WELL (feet): 84'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
	——	——	——	SEE	COC	——	——		

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

125mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-115D
SAMPLE ID: MW-115D
DATE: 4-23-25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 93.16
STATIC DEPTH TO WATER (feet): 74.45
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 91'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 0955
PURGING ENDED AT: 1020
TOTAL VOLUME PURGED (gallons): .825

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1000	.165	.165	.0330	74.70	6.73	20.59	570	1.53	69	11.6	
1005	.165	.33	|		6.97	20.46	549	1.10	29	7.9	
1010	.165	.495	|		7.02	20.49	544	1.2	18	7.1	
1015	.165	.66	|	75.35	7.08	20.62	541	1.08	14	7.2	
1020	.165	.825	|	75.59	7.12	20.79	540	1.2	16	6.9	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1020
SAMPLING ENDED AT: 1038
PUMP OR TUBING DEPTH IN WELL (feet): 91'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
FILTER SIZE: _____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE	COC				

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, Ar
WELL NO: MW-118D
SAMPLE ID: MW-118D
DATE: 4/23/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 72.81
STATIC DEPTH TO WATER (feet): 40.8
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 61'
WELL SCREEN INTERVAL DEPTH: ~~feet to~~ feet
PURGING INITIATED AT: 1530
PURGING ENDED AT: 1605
TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1535	.13	.13	.0026	40.8	7.45	26.32	258	3.59	-61	4.4	
1540	.13	.26			7.18	25.62	563	2.52	4	2.1	
1545	.13	.39			7.03	24.11	719	0.81	15	1.2	
1550	.13	.52		41.15	7.06	23.74	729	0.68	-5	0.0	
1555	.13	.65			7.07	23.60	735	0.91	-14	0.0	
1600	.13	.78			7.07	23.73	739	0.98	-17	0.0	
1605	.13	.91		41.25	7.08	24.08	740	0.96	-19	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): MSD
SAMPLING INITIATED AT: 1605
SAMPLING ENDED AT: 1621
PUMP OR TUBING DEPTH IN WELL (feet): 61'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:
FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				SEE COC					

REMARKS:

MATERIAL CODES **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100 ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-101S

SAMPLE ID: MW-101S

DATE: 9/18/25

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/8

TOTAL WATER DEPTH (feet): 49.10

STATIC DEPTH TO WATER (feet): 38.30

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 48'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1100

PURGING ENDED AT: 1140

TOTAL VOLUME PURGED (gallons): 1.04

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1105	0.13	0.13	0.026	38.40	6.78	26.95	571	3.00	-109	57.0	Turbid
1110	0.13	0.26			5.75	29.03	382	2.16	-30	29.4	Clear
1115	0.13	0.39			5.14	29.59	272	1.04	18	20.6	
1120	0.13	0.52		38.45	5.01	29.35	262	0.80	32	14.5	
1125	0.13	0.65			4.87	29.05	255	0.65	43	8.5	
1130	0.13	0.78			4.88	29.43	250	0.50	47	5.0	
1135	0.13	0.91		38.45	4.92	29.37	250	0.42	41	2.3	
1140	0.13	1.04		38.45	4.88	29.19	250	0.39	44	1.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / JCH

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1140

SAMPLING ENDED AT: 1152

PUMP OR TUBING DEPTH IN WELL (feet): 48'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:
Dup @ Taken

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. Stabilization Criteria for range of variation of last three consecutive readings

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

34.06

SITE NAME: White Bluff	SITE LOCATION: Redfield Av

WELL NO: MW-102S	SAMPLE ID: MW-102S	DATE: 9/10/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 53.10	STATIC DEPTH TO WATER (feet): 34.08	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 39'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1110	PURGING ENDED AT: 1150	TOTAL VOLUME PURGED (gallons): 1.06

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1115	.132	.132	.026	35.00	6.66	31.35	371	3.42	-3	28.3	
1120	.132	.264	|		6.30	32.51	250	2.65	69	13.5	
1125	.132	.396	|		6.10	33.00	199	1.75	102	6.0	
1130	.132	.528	|	35.29	6.03	33.28	191	1.66	123	3.5	
1135	.132	.660	|		5.94	33.83	191	1.20	76	1.08	
1140	.132	.792	|		5.91	34.26	195	0.81	69	1.30	
1145	.132	.924	|	35.51	5.89	34.49	199	0.77	69	0.9	
1150	.132	1.06	|	35.52	5.88	34.77	201	0.72	70	1.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): JLC/MSD	SAMPLING INITIATED AT: 1150	SAMPLING ENDED AT: 1156
PUMP OR TUBING DEPTH IN WELL (feet): 39'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			—	See	COC —				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

Saml/mm

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfidd, Ar.
WELL NO: MW-103S
SAMPLE ID: MW-103S
DATE: 9/15/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/4"
TOTAL WATER DEPTH (feet): 23.10
STATIC DEPTH TO WATER (feet): 20.46
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 23'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1320
PURGING ENDED AT: 1400
TOTAL VOLUME PURGED (gallons): .495

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1320	.066	.066	.0132	20.51	8.23	29.00	715	2.23	141	48.3	Turbid
1325	.066	.132			6.93	29.25	413	2.18	198	123	
1330	.066	.198			6.41	29.30	323	2.19	223	113	
1335	.066	.264		20.90	6.06	29.38	289	2.42	244	89.2	
1340	.066	.33			5.87	29.50	274	2.28	254	74.5	
1345	.066	.396			5.79	29.59	267	2.27	270	52.0	
1350	.066	.429		21.35	5.70	29.70	263	1.83	277	37.0	
1355	.066	.462			5.63	29.72	262	1.90	283	35.3	
1400	.066	.495		21.40	5.69	29.77	261	1.77	286	35.1	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): JLC/MSD
SAMPLING INITIATED AT: 1400
SAMPLING ENDED AT: 1406
PUMP OR TUBING DEPTH IN WELL (feet): 23'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y N
FILTER SIZE: _____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			—	See	COC —				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

80mL/min

31.71

31.5' –

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-104S

SAMPLE ID: MW-104S

DATE: 9/16/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/4"

TOTAL WATER DEPTH (feet): 40.15

STATIC DEPTH TO WATER (feet): 31.78

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 35'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0910

PURGING ENDED AT: 0955

TOTAL VOLUME PURGED (gallons): .954

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0915	.106	.106	.0211	32.20	4.80	23.54	294	2.14	114	38.2	
0920	.106	.212			5.07	24.25	259	1.07	88	30.9	
0925	.106	.318			5.03	24.33	246	0.81	73	26.0	
0930	.106	.424		32.30	4.94	24.34	243	0.70	71	21.2	
0935	.106	.53			4.96	24.52	242	0.69	62	19.7	
0940	.106	.636			4.99	24.55	241	0.62	55	15.6	
0945	.106	.742		32.41	4.92	24.51	240	0.54	57	11.1	
0950	.106	.848			4.94	24.57	239	0.51	50	11.5	
0955	.106	.954		32.48	4.94	24.69	237	0.51	53	10.6	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): JLC / MSD

SAMPLING INITIATED AT: 0955

SAMPLING ENDED AT: 1001

PUMP OR TUBING DEPTH IN WELL (feet): 35'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
		—	—	See	COC				

REMARKS: Hanna Calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

1000ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-105 S
SAMPLE ID: MW-105 S
DATE: 9-14-25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 46.31
STATIC DEPTH TO WATER (feet): 28.29
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 40'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1305
PURGING ENDED AT: 1340
TOTAL VOLUME PURGED (gallons): 0.91

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1310	0.13	0.13	0.026	28.69	6.46	35.92	507	1.96	-135	16.4	clear
1315	0.13	0.26	0.026		6.41	37.24	298	0.96	-59	22.9	clear
1320	0.13	0.39	(		6.24	37.20	263	0.60	-40	21.7	(
1325	0.13	0.52			29.21	6.05	35.22	217	0.44	-14	24.2		
1330	0.13	0.65				5.50	32.97	211	0.50	31	20.2		
1335	0.13	0.78				5.46	32.18	213	0.49	37	18.7		
1340	0.13	0.91	)	29.34	5.47	32.34	211	0.48	40	19.0		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TL / WEO
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1340
SAMPLING ENDED AT: 1350
PUMP OR TUBING DEPTH IN WELL (feet): 40'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: N/A µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

70ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar.

WELL NO: MW-106S

SAMPLE ID: MW-106S

DATE: 9/17/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/4"

TOTAL WATER DEPTH (feet): 25.93

STATIC DEPTH TO WATER (feet): 14.61

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet − feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 20'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0845

PURGING ENDED AT: 0930

TOTAL VOLUME PURGED (gallons): .82

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (^{O}C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0850	.097	.092	.018	14.61	3.74	25.14	1930	2.59	302	14.7	
0855	.092	.184			2.74	27.92	1910	1.62	344	14.4	
0900	.092	.276			3.25	27.95	1900	1.16	310	13.6	
0905	.092	.368		14.80	3.33	29.38	1890	0.94	304	9.4	
0910	.092	.46			3.36	29.47	1880	0.94	321	7.6	
0915	.092	.552			3.37	29.53	1860	0.86	334	7.6	
0920	.092	.64		14.80	3.38	29.72	1830	0.93	339	4.0	
0925	.092	.73			3.39	30.12	1830	0.89	343	1.8	
0930	.092	.82		14.84	3.38	30.47	1830	0.95	345	1.6	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): JLC/MSD

SAMPLING INITIATED AT: 0930

SAMPLING ENDED AT: 0934

PUMP OR TUBING DEPTH IN WELL (feet):

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, **if three dissolved** oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

70mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar

WELL NO: MW-110S	SAMPLE ID: MW-110S	DATE: 9/15/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 22.34	STATIC DEPTH TO WATER (feet): 15.45	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 20'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1055	PURGING ENDED AT: 1120	TOTAL VOLUME PURGED (gallons): .462

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1100	.0925	.0925	.018	15.15	4.23	27.02	474	2.00	300	14.7	
1105	.0925	.185			4.31	26.88	450	1.34	315	10.4	
1110	.0925	.277			4.84	27.03	434	0.97	305	6.9	
1115	.0925	.369		16.17	4.87	27.08	427	0.87	304	7.2	
1120	.0925	.462		16.35	4.80	27.03	422	0.87	304	7.4	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD	SAMPLER(S) SIGNATURE(S): JLC / MSD	SAMPLING INITIATED AT: 1120	SAMPLING ENDED AT: 1124

PUMP OR TUBING DEPTH IN WELL (feet): 20'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced) DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			—	See	COC —				

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

60mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, Ar
WELL NO: MW-111S
SAMPLE ID: MW-111S
DATE: 9/17/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/4"
TOTAL WATER DEPTH (feet): 23.32
STATIC DEPTH TO WATER (feet): 14.75
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 20'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1045
PURGING ENDED AT: 1125
TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1050	.08	.08	.016	14.85	4.65	34.10	1350	1.81	272	27.0	
1055	.08	.16			4.01	34.30	1440	1.29	338	23.0	
1100	.08	.24			3.67	34.53	394	1.12	365	18.8	
1105	.08	.32		14.95	3.64	34.76	1510	1.08	380	30.8	
1110	.08	.40			3.53	35.00	1530	1.02	389	25.0	
1115	.08	.48			3.49	35.03	1520	1.05	394	20.8	
1120	.08	.56		14.95	3.47	35.11	1520	1.07	395	19.7	
1125	.08	.64		14.95	3.48	35.21	1520	1.05	397	19.5	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): JLC/MSD
SAMPLING INITIATED AT: 1125
SAMPLING ENDED AT: 1129
PUMP OR TUBING DEPTH IN WELL (feet): 20'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-101D

SAMPLE ID: MW-101D

DATE: 9/18/25

PURGING DATA

WELL DIAMETER (inches): 2in

TUBING DIAMETER (inches): 1/8

TOTAL WATER DEPTH (feet): 116.0

STATIC DEPTH TO WATER (feet): 46.73

PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: **1 WELL VOLUME =** (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 107'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0925

PURGING ENDED AT: 1020

TOTAL VOLUME PURGED (gallons): 1.43

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0930	0.13	0.13	0.026	97.30	5.41	22.72	551	4.79	26	59.8	Turbid
0935	0.13	0.26			5.56	22.53	549	3.02	-27	40.7	
0940	0.13	0.39			5.66	22.48	547	2.64	-48	40.0	
0945	0.13	0.52		9730	5.87	22.41	548	2.24	-75	29.0	Clear
0950	0.13	0.65			5.91	22.54	549	1.95	-86	28.0	
0955	0.13	0.78			5.92	22.40	549	1.96	-89	27.0	
1000	0.13	0.91		97.30	6.32	22.50	548	1.86	-118	25.0	
1005	0.13	1.04			6.18	22.61	549	1.77	-112	18.3	
1010	0.13	1.17			6.09	22.79	555	1.45	-112	12.8	
1015	0.13	1.30		97.30	6.01	22.78	555	1.41	-107	12.4	
1020	0.13	1.43		97.30	6.00	22.81	555	1.35	-104	13.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: SLC / SCH

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1020

SAMPLING ENDED AT: 1047

PUMP OR TUBING DEPTH IN WELL (feet): 107'

TUBING MATERIAL CODE: -

FIELD-FILTERED: Y [✓ N]

Filtration Equipment Type:

FILTER SIZE: [illegible] µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			See COC						

REMARKS: Calibrated Horiba Prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

110/mL

GROUNDWATER SAMPLING LOG

91.51

SITE NAME: White Bluff		SITE LOCATION: Redfield, Ar
WELL NO: MW-102D	SAMPLE ID: MW-102D	DATE: 9/16/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 111.75	STATIC DEPTH TO WATER (feet): 91.58	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 102'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1205	PURGING ENDED AT: 1240	TOTAL VOLUME PURGED (gallons): 1.02

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1210	.145	.145	.029	91.75	6.58	31.93	322	1.94	-70	5.80	
1215	.145	.29			7.05	29.63	492	0.98	-128	6.5	
1220	.145	.435			7.16	28.41	548	1.12	-157	7.0	
1225	.145	.58		95.90	7.24	27.30	550	1.40	-171	7.5	
1230	.145	.725			7.25	26.66	557	1.86	-175	8.6	
1235	.145	.87			7.18	26.75	562	1.77	-175	7.7	
1240	.145	1.02		95.48	7.16	26.45	565	1.75	-175	7.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): JLC/MSD	SAMPLING INITIATED AT: 1240	SAMPLING ENDED AT: 1248

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] FILTER SIZE: _____ µm Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced) DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-103D

SAMPLE ID: MW-103D

DATE: 9/15/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/4"

TOTAL WATER DEPTH (feet): 85.10

STATIC DEPTH TO WATER (feet): 42.20

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 52'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1230

PURGING ENDED AT: 1300

TOTAL VOLUME PURGED (gallons): .792

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1235	.132	.132	.0264	42.61	8.23	29.96	608	3.08	164	6.7	
1240	.132	.264			8.18	29.30	697	0.81	169	0.1	
1245	.132	.396			8.17	27.87	712	0.75	158	0.7	
1250	.132	.528		45.15	8.17	27.69	714	0.50	155	0.4	
1255	.132	.660			8.15	27.35	716	0.47	152	0.2	
1300	.132	.792		46.95	8.15	27.15	712	0.47	145	0.4	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MSD

SAMPLER(S) SIGNATURE(S): JLC / MSD

SAMPLING INITIATED AT: 1300

SAMPLING ENDED AT: 1308

PUMP OR TUBING DEPTH IN WELL (feet): 52'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

120mL/min

84.74

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff		SITE LOCATION: Redfield, Ar
WELL NO: MW-104D	SAMPLE ID: MW-104D	DATE: 9/16/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 106.22	STATIC DEPTH TO WATER (feet): 86.80	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1010	PURGING ENDED AT: 1050	TOTAL VOLUME PURGED (gallons): 1.27

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1015	.159	.159	.0317	87.49	6.28	23.64	426	1.85	-46	50.0	
1020	.159	.318			6.81	22.67	494	1.79	-122	49.1	
1025	.159	.477			6.93	22.34	523	1.54	-152	32.1	
1030	.159	.636		89.62	7.14	22.05	528	1.70	-163	22.1	
1035	.159	.795			7.18	22.25	531	1.88	-168	16.1	
1040	.159	.954			7.19	22.10	533	1.88	-168	12.0	
1045	.159	1.11		92.22	7.20	22.21	534	1.87	-168	11.6	
1050	.159	1.27		92.83	7.22	22.22	533	1.82	-168	11.1	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): JLC/MSD	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1056
PUMP OR TUBING DEPTH IN WELL (feet): 100'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100 ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-105 D

SAMPLE ID: MW-105 D

DATE: 9-19-25

PURGING DATA

WELL DIAMETER (inches): 2 in

TUBING DIAMETER (inches): 1/8

TOTAL WATER DEPTH (feet): 110.11

STATIC DEPTH TO WATER (feet): 80.04

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet −   feet) X   gallons/foot =   gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=   gallons + (gallons/foot X   feet) +   gallons = N/A gallons

N/A

PUMP OR TUBING DEPTH IN WELL (feet): 90 ft

WELL SCREEN INTERVAL DEPTH: feet to   feet

PURGING INITIATED AT: 1210

PURGING ENDED AT: 1250

TOTAL VOLUME PURGED (gallons): 1.04

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1215	0.13	0.13	0.026	80.06	8.25	35.05	645	4.00	-63	12.9	clear
1220	0.13	0.26			7.10	34.15	709	2.70	-64	13.2	
1225	0.13	0.39			6.98	33.06	611	1.48	-45	14.2	
1230	0.13	0.52		82.15	6.99	32.15	561	1.08	-49	12.2	
1235	0.13	0.65			6.96	31.87	555	0.82	-51	11.0	
1240	0.13	0.78			6.96	31.72	544	0.70	-95	9.9	
1245	0.13	0.91		84.70	6.97	31.44	544	0.64	-99	9.1	
1250	0.13	1.04		85.16	6.96	30.93	538	0.63	-104	9.1	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: SLC / HEC

SAMPLER(S) SIGNATURE(S): Colvert

SAMPLING INITIATED AT: 1250

SAMPLING ENDED AT:

PUMP OR TUBING DEPTH IN WELL (feet): 90 ft

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]

Filtration Equipment Type:

FILTER SIZE: N/A µm

FIELD DECONTAMINATION: PUMP [✓ Y] N   TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				– See	CoC –				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

10ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-100D

SAMPLE ID: MW-100D

DATE: 9/17/25

PURGING DATA

WELL DIAMETER (inches): 2"

TUBING DIAMETER (inches): 1/4"

TOTAL WATER DEPTH (feet): 86.94

STATIC DEPTH TO WATER (feet): 42.79

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 50'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0940

PURGING ENDED AT: 1010

TOTAL VOLUME PURGED (gallons): .79

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0945	.132	.132	.0264	42.79	4.66	31.27	1440	2.42	208	10.4	
0950	.132	.264			6.18	30.85	674	1.85	-93	10.3	
0955	.132	.396			8.41	30.48	388	2.47	-44	7.7	
1000	.132	.528		45.60	8.96	30.39	338	3.33	-25	5.6	
1005	.132	.660			9.09	30.60	329	3.86	-23	4.9	
1010	.132	.79			9.13	30.94	329	3.89	-23	5.3	
1015	.132	.92		48.17	9.12	31.31	329	4.04	-21	5.3	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD

SAMPLER(S) SIGNATURE(S): JLC/MSD

SAMPLING INITIATED AT: 1010

SAMPLING ENDED AT: 1029

PUMP OR TUBING DEPTH IN WELL (feet): 50'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100 ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-107 D
SAMPLE ID: MW-107 D
DATE: 9-19-25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/8"
TOTAL WATER DEPTH (feet): 21.40
STATIC DEPTH TO WATER (feet): 21.40
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 31'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1120
PURGING ENDED AT: 1150
TOTAL VOLUME PURGED (gallons): 0.78

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1125	0.13	0.13	0.026	21.79	7.74	35.04	701	21.8	-201	7.5	Clear
1130	0.12	0.26			7.23	34.92	758	1.35	-176	3.5	
1135	0.13	0.39			6.99	34.68	778	1.32	-150	3.5	
1140	0.13	0.52		24.78	6.95	35.03	794	1.36	-132	4.5	
1145	0.13	0.65			6.91	35.23	796	1.39	-128	4.8	
1150	0.13	0.78		26.05	6.89	35.37	795	1.40	-125	4.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / NEO
SAMPLER(S) SIGNATURE(S): Jacob Collins
SAMPLING INITIATED AT: 1150
SAMPLING ENDED AT: 1157
PUMP OR TUBING DEPTH IN WELL (feet): 31
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
FILTER SIZE: N/A µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			-	See	COC	-			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-108D

SAMPLE ID: MW-108D

DATE: 9-19-25

PURGING DATA

WELL DIAMETER (inches): 2'

TUBING DIAMETER (inches): 1/8'

TOTAL WATER DEPTH (feet): 80.02

STATIC DEPTH TO WATER (feet): 45.83

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 55'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0915

PURGING ENDED AT: 0945

TOTAL VOLUME PURGED (gallons): 0.78

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0920	0.13	0.13	0.026	47.20	6.93	25.24	943	1.23	-178	2.1	Clear
0925	0.13	0.26			6.30	25.26	860	0.74	-149	1.6	
0930	0.13	0.39			6.66	25.47	821	0.70	-187	3.1	
0935	0.13	0.52		49.47	6.69	25.59	790	0.75	-190	1.8	
0940	0.13	0.65			6.70	25.74	780	0.75	-186	0.2	
0945	0.13	0.78		50.84	6.64	25.56	776	0.72	-181	2.4	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / HEO

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 0945

SAMPLING ENDED AT: 0950

PUMP OR TUBING DEPTH IN WELL (feet): 55'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: N/A µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff		SITE LOCATION: Redfield, Ar
WELL NO: MW-109D	SAMPLE ID: MW-109D	DATE: 9/17/25

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 111.32	STATIC DEPTH TO WATER (feet): 79.15	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons N/A

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons N/A

PUMP OR TUBING DEPTH IN WELL (feet): 90'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1315	PURGING ENDED AT: 1400	TOTAL VOLUME PURGED (gallons): 1.18

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1320	.132	.132	.0264	79.79	7.30	27.23	570	5.32	-153	29.3	
1325	.132	.264	|		6.55	26.48	574	1.41	-124	17.1	
1330	.132	.396	|		5.33	25.93	571	1.34	-64	9.8	
1335	.132	.528	|	82.38	6.23	25.30	571	1.51	-98	6.8	
1340	.132	.66	|		6.86	25.23	570	1.61	-125	10.0	
1345	.132	.79	|		6.96	25.22	568	1.76	-122	5.0	
1350	.132	.92	|	85.29	7.13	25.48	563	2.12	-124	7.3	
1355	.132	1.05	|		7.19	25.61	571	2.17	-121	8.0	
1400	.132	1.18	|	87.23	7.11	25.87	564	2.30	-121	7.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): JLC/MSD	SAMPLING INITIATED AT: 1400	SAMPLING ENDED AT: 1407
PUMP OR TUBING DEPTH IN WELL (feet): 90'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

70mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, Ar

WELL NO: MW-110D

SAMPLE ID: MW-110 D

DATE: 9/15/25

PURGING DATA

WELL DIAMETER (inches): 4"

TUBING DIAMETER (inches): 1/4"

TOTAL WATER DEPTH (feet): 84.38

STATIC DEPTH TO WATER (feet): 34.58

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 40'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1135

PURGING ENDED AT: 1200

TOTAL VOLUME PURGED (gallons): .462

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1140	.0925	.0925	.018	34.80	7.11	21.96	509	1.07	164	1.5	
1145	.0925	.185			7.69	27.54	537	0.75	147	0.0	
1150	.0925	.277			7.94	27.56	542	0.78	141	0.0	
1155	.0925	.309		35.20	7.98	27.45	544	0.80	138	0.1	
1200	.0925	.462		35.44	8.01	27.43	545	0.75	137	0.1	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSB

SAMPLER(S) SIGNATURE(S): JLC/MSB

SAMPLING INITIATED AT: 1200

SAMPLING ENDED AT: 1215

PUMP OR TUBING DEPTH IN WELL (feet):

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

100ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff		SITE LOCATION: Redfield, AR
WELL NO: MW-1120	SAMPLE ID: MW-112 D	DATE: 9-19-25

PURGING DATA

WELL DIAMETER (inches): 4'	TUBING DIAMETER (inches): 1/8'	TOTAL WATER DEPTH (feet): 113.31	STATIC DEPTH TO WATER (feet): 87.75	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1010	PURGING ENDED AT: 1045	TOTAL VOLUME PURGED (gallons): 0.91

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1015	0.13	0.13	0.026	87.79	7.51	27.56	754	4.82	-179	19.5	Clear
1020	0.13	0.26	(		7.72	27.19	550	1.78	-82	7.2	(
1025	0.13	0.39	)		7.75	26.57	518	1.09	-12	2.7	)
1030	0.13	0.52	(	88.50	7.76	26.40	513	0.85	-44	1.7	(
1035	0.13	0.65	)		7.75	26.20	509	0.79	-61	1.7	)
1040	0.13	0.78	(		7.75	25.95	506	0.78	-83	1.5	(
1045	0.13	0.91	)	89.16	7.74	25.97	505	0.75	-83	0.1	)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / NEO	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1045	SAMPLING ENDED AT: 1101
PUMP OR TUBING DEPTH IN WELL (feet): 100'	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: N/A µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
		See		COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

100 ml/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: [illegible]

SAMPLE ID: MW-13V

DATE: 9-19-25

PURGING DATA

WELL DIAMETER (inches): 4"

TUBING DIAMETER (inches): 1/8"

TOTAL WATER DEPTH (feet): 46.81

STATIC DEPTH TO WATER (feet): 10.62

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 20'

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0815

PURGING ENDED AT: 0845

TOTAL VOLUME PURGED (gallons): 0.78

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0820	0.13	0.13	0.026	10.96	4.59	24.81	892	5.65	104	12.0	Clear
0825	0.13	0.26			5.53	24.71	1,470	2.15	110	0.8	
0830	0.13	0.39			5.81	24.52	1,510	1.85	129	0.0	
0835	0.13	0.52		11.65	6.01	24.74	1,530	1.93	136	0.1	
0840	0.12	0.65			6.04	25.14	1,520	2.02	145	1.2	
0845	0.13	0.78		11.97	6.11	25.28	1,520	2.08	144	1.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: SLC/HEO

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 0845

SAMPLING ENDED AT: 0855

PUMP OR TUBING DEPTH IN WELL (feet): 20'

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type: ∅

FILTER SIZE: N/A µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
			See	COC					

REMARKS: Calibrated Horiba Prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

50mL/mn

GROUNDWATER SAMPLING LOG

60.49

SITE NAME: White Bluff
SITE LOCATION: Redfield, Ar
WELL NO: MW-114D
SAMPLE ID: MW-114D
DATE: 9/16/26

PURGING DATA

WELL DIAMETER (inches): 4"
TUBING DIAMETER (inches): 1/4"
TOTAL WATER DEPTH (feet): 91.18
STATIC DEPTH TO WATER (feet): 60.50
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 66'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1305
PURGING ENDED AT: 1355
TOTAL VOLUME PURGED (gallons): .66

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1310	.066	.066	.0132	60.75	7.41	35.30	620	4.25	-129	34.7	
1315	.066	.132			7.38	36.19	545	4.14	-95	14.3	
1320	.066	.198			7.40	34.64	527	4.06	-77	13.3	
1325	.066	.264		61.18	7.39	34.14	515	3.87	-45	10.8	
1330	.066	.33			7.40	33.90	512	3.72	-32	6.0	
1335	.066	.40			7.37	33.90	511	3.60	-22	6.2	
1340	.066	.46		61.57	7.37	33.73	510	3.61	-11	4.0	
1345	.066	.53			7.41	33.73	513	0.48	-8	5.0	
1350	.066	.59			7.34	33.41	512	0.43	-5	3.8	
1355	.066	.66		61.78	7.40	33.43	510	0.46	-1	2.6	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP =** Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): JLC/MSD
SAMPLING INITIATED AT: 1355
SAMPLING ENDED AT: 1359
PUMP OR TUBING DEPTH IN WELL (feet):
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
FILTER SIZE: ____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

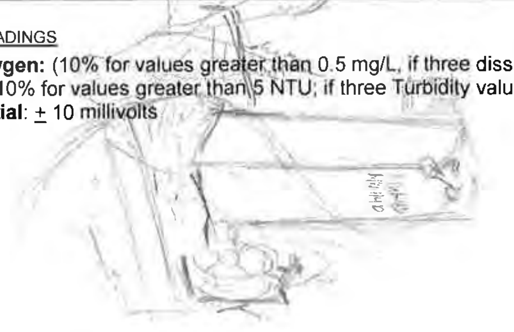
MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. <u>STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS</u>

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

[illegible]



60mL/m

GROUNDWATER SAMPLING LOG

79

SITE NAME: White Bluff	SITE LOCATION: Redfield Ar.
WELL NO: MW-115D	SAMPLE ID: MW-115D
DATE: 9/17/25	

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 93.16	STATIC DEPTH TO WATER (feet): 75.22	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 85'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1150	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (gallons): .96

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1155	.08	.08	.016	75.4	5.29	32.45	815	5.54	66	36.3	
1200	.08	.16			5.77	27.42	597	0.85	-56	22.8	
1205	.08	.24			5.77	28.34	522	0.71	-77	12.7	
1210	.08	.32		76.00	5.64	28.08	497	0.66	-74	14.1	
1215	.08	.40			5.99	27.77	494	0.74	-90	8.2	
1220	.08	.48			6.24	27.55	496	0.81	-101	7.9	
1225	.08	.56		76.71	6.04	27.34	495	.91	-122	6.0	
1230	.08	.64			6.83	27.12	498	0.87	-124	5.0	
1235	.08	.72			6.95	27.28	500	0.89	-126	4.8	
1240	.08	.80		77.30	7.38	27.32	497	0.94	-145	5.0	
1245	.08	.88			7.44	27.24	494	0.91	-147	5.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD	SAMPLER(S) SIGNATURE(S): JLC/MSD	SAMPLING INITIATED AT: 1250	SAMPLING ENDED AT: 1254
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

1/2

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, Ar	
WELL NO: MW-115D	SAMPLE ID: MW-115D	DATE: 9/17/25

PURGING DATA

WELL DIAMETER (inches): 4"	TUBING DIAMETER (inches): 1/4"	TOTAL WATER DEPTH (feet): 93.16	STATIC DEPTH TO WATER (feet): 75.22	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME =** (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 85'	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1150	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (gallons): .96

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1250	.08	.96	.016	77.58	7.44	27.15	496	0.97	-154	4.7	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MJD	SAMPLER(S) SIGNATURE(S): JLC/MJD	SAMPLING INITIATED AT: 1250	SAMPLING ENDED AT: 1254
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See COC					

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS
pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

2/2

100mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, Ar
WELL NO: MW-118D
SAMPLE ID: MW-118D
DATE: 9/16/25

PURGING DATA

WELL DIAMETER (inches): 2"
TUBING DIAMETER (inches): 1/4"
TOTAL WATER DEPTH (feet): 72.21
STATIC DEPTH TO WATER (feet): 41.03
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 46'
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1410
PURGING ENDED AT: 1435
TOTAL VOLUME PURGED (gallons): .66

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1415	.132	.132	.026	41.31	7.46	37.08	579	5.08	60	8.7	
1420	.132	.264	|		6.78	35.26	709	5.18	81	6.0	
1425	.132	.396	|		6.72	33.95	731	5.00	82	1.8	
1430	.132	.528	|	41.43	6.75	33.57	736	4.81	83	0.2	
1435	.132	.66	|	41.45	669	33.45	736	4.60	90	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/MSD
SAMPLER(S) SIGNATURE(S): JLC/MSD
SAMPLING INITIATED AT: 1435
SAMPLING ENDED AT: 1440
PUMP OR TUBING DEPTH IN WELL (feet): 46'
TUBING MATERIAL CODE:
FIELD-FILTERED: Y N
FILTER SIZE: _____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			
				See	COC				

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS
pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

APPENDIX E

ALTERNATE SOURCE DEMONSTRATIONS

APPENDIX E-1

SECOND HALF 2024

ALTERNATE SOURCE DEMONSTRATION

Alternate Source Demonstration

2nd Half 2024 Sampling Event

Entergy White Bluff Plant
Coal Ash Disposal Landfill
Redfield, Jefferson County, Arkansas

June 2025

Prepared For
Entergy Arkansas, LLC
White Bluff Plant
1100 White Bluff Road
Redfield, Arkansas 72132

Nakia Addison, P.E.
South Operations Manager

Emma Gaines, P.G.
Project Manager

Executive Summary

Entergy Arkansas, LLC (EAL) performed the most recent semiannual detection monitoring sampling (2nd Half 2024) in November 2024 for Cells 1 through 4 of the coal ash disposal landfill (CADL) pursuant to the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, 40 CFR Part 257 (CCR Rule). Cells 1 through 4 of the CADL constitute the coal combustion residuals (CCR) Unit per the CCR Rule. Per 40 CFR 257.94, the samples were analyzed for the Appendix III detection monitoring parameters. Upon receipt of the laboratory analytical results, statistical analysis was performed.

In accordance with the statistical analyses, the following 12 statistically significant increases (SSI) above background concentrations were identified in three monitoring wells in Stratum I and two monitoring wells in Stratum III, based on either increasing trends at 98% confidence levels using Sen's Slope test and/or intrawell prediction limits statistical analyses:

- Calcium (MW-102S);
- Boron (MW-103S);
- Calcium, sulfate and TDS (MW-106S);
- Boron, calcium, sulfate, and TDS (MW-111S);
- Boron, calcium, and TDS (MW-112D).

The information provided in this report serves as EAL's alternate source demonstration (ASD) prepared in accordance with 40 CFR 257.94(e)(2) and successfully demonstrates that the SSIs are not due to a release from the CCR Unit to groundwater, but are due to the following:

- Natural groundwater geochemistry conditions such as pH, electrical conductivity (EC), oxidation-reduction potential (ORP) and the naturally occurrence of sulfide minerals;
- Natural variation in groundwater quality;
- Releases from historic fill or portions of the CADL closed before the effective date of the CCR Rule (October 19, 2015); and/or
- Surface water that has come into contact with on-site CCR and has migrated into the subsurface.

Therefore, based on the information provided in this ASD report, EAL will continue to conduct semiannual detection monitoring for Appendix III constituents in accordance with 40 CFR 257.94 at the certified groundwater monitoring well system (Certified Monitoring Well Network) for the CCR Unit and will continue to implement improvements to stormwater management practices at the CADL.

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Section 1
Introduction

1.1 Background

Entergy Arkansas, LLC (EAL) operates the Entergy White Bluff Plant (Plant), a coal-fired power plant, to generate electricity. The Plant is located at 1100 White Bluff Road in Redfield, Jefferson County, Arkansas as shown on Figure 1. Coal combustion residuals (CCR) are produced as part of the electrical generation operations. The Plant has been generating and disposing of CCR in a portion of the on-site coal ash disposal landfill (CADL) since it began operations in 1981. The CADL is a Class 3N non-commercial industrial landfill and operates under Arkansas Division of Environmental Quality (ADEQ) Solid Waste Permit No. 0199-S3N-R3.

The ADEQ-permitted CADL consists of approximately 153-acres at the Plant and encompasses the following three areas:

- Approximately 50-acre portion of the CADL historically used for CCR disposal from 1981 until prior to the effective date of the CCR Rule (October 19, 2015). CCR was placed into ravines. This historic fill area was covered with soil and vegetated.
- Cells 1 through 4, which are the current cells used for CCR disposal and were constructed on top of, and adjacent to, the above-noted closed CCR disposal areas prior to the effective date of the CCR Rule. Cells 1 through 4 encompass approximately 30 acres and were constructed as follows:
    - Cells 1, 2, and 3 were constructed with an 18-inch thick compacted clay bottom liner;
    - Cell 4 was constructed with a two-foot thick compacted clay bottom liner and a leachate collection system; and
- Approximately 100-acre portion of the CADL that is currently undeveloped and may be used for CCR and/or non-CCR disposal.

In addition to the current 153-acre permitted landfill, there is an approximately 25-acre area to the immediate west of Cells 1 through 4 where during the initial period of operation of the Plant, ash was placed pursuant to the permits issued at that time. This historic fill area is covered with soil and vegetated.

Cells 1 through 4 accept CCR for disposal in accordance with the federal *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule* (CCR Rule), effective October 19, 2015, and subsequent Final Rules promulgated by the United States Environmental Protection Agency (USEPA). Cells 1 through 4 comprise the CCR management unit (CCR Unit) per the CCR Rule and are the focus of this ASD. The approximate limits of Cells 1 through 4, the former disposal areas, and the undeveloped, future disposal areas within the ADEQ-permitted footprint of the CADL are shown in Figure 2.

Historical CCR management by EAL has consisted of the following activities:

- Beneficial use in local construction projects;
- Beneficial use as roadbed material at the CADL; and
- Placement into the CADL.

1.1.1 Groundwater Monitoring and Statistical Analysis

In accordance with 40 CFR 257.90 through 257.94, EAL installed a groundwater monitoring system for Cells 1 through 4 and has collected samples from the Certified Monitoring Well Network for laboratory analysis for CCR constituents and performed statistical analysis of the collected samples. EAL installed a Certified Monitoring Well Network for the CCR Unit in accordance with 40 CFR 257.90 and 257.91. The Certified Monitoring Well Network consists of 23 wells installed into two stratigraphic units as follows:

- Eight wells are installed into an upper silty and clayey sand unit (Stratum I), which are designated as "S" monitoring wells; and
- Fifteen wells are installed into a lower silty and clayey sand and clay unit (Stratum III), which are designated as "D" monitoring wells.

Pursuant to 40 CFR 257.91(f), EAL obtained certification by a qualified Arkansas-registered professional engineer (P.E.) stating that the Certified Monitoring Well Network has been designed and constructed to meet the requirements of 40 CFR 257.91 (see Groundwater Monitoring System Certification, TRC, February 26, 2018) of the CCR Rule (TRC 2018b).

As discussed above, Stratum I and Stratum III are currently being monitored pursuant to the CCR Rule. A groundwater sampling and analysis program including selection of statistical procedures to evaluate groundwater data was prepared per the CCR Rule (see Groundwater Sampling and Analysis Plan (FTN, 2017b)). Eight quarterly background CCR detection monitoring events were performed from October 2015 through June 2017 in accordance with 40 CFR 257.93(d) and 257.94(b). The eight quarterly detection monitoring background samples were analyzed for Appendix III to Part 257 – Constituents for Detection Monitoring and for Appendix IV to Part 257 – Constituents for Assessment Monitoring.

Following completion of quarterly background detection monitoring in June 2017, EAL implemented semiannual detection monitoring per 40 CFR 257.94(b) for the CCR Unit. The first semiannual detection monitoring event was performed in August 2017 (2nd Half 2017). Subsequent detection monitoring events, with associated verification sampling when appropriate, have been performed on a semiannual basis since August 2017. EAL performed the most recent semiannual detection monitoring event (2nd Half 2023) in November 2023. Per the CCR Rule, the semiannual detection monitoring event samples were analyzed for Appendix III constituents.

After completion of each semiannual detection monitoring event, the Appendix III laboratory analytical data were statistically evaluated to identify potential SSIs for Appendix III constituents above background levels. In accordance with 40 CFR 257.93(f)(6), EAL obtained certification by a qualified Arkansas-registered P.E. stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR Unit (see Statistical Methods Certification, TRC, October 16, 2017).

Pursuant to 40 CFR 257.93(h), statistical analysis and re-analysis of the laboratory analytical data were performed to identify potential SSIs for the 2nd Half 2024 semiannual detection monitoring event. A total of 12 SSIs were identified for four Appendix III constituents: boron, calcium, sulfate, and TDS. SSIs were identified in three Stratum I and one Stratum III monitoring wells.

1.2 Purpose

Pursuant to 40 CFR 257.94(e)(2), EAL may demonstrate that a source other than the CCR Unit caused the SSIs identified or that the SSIs resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The purpose of this report is to provide written documentation of the successful ASD for the SSIs identified for the 2nd Half 2024 semiannual detection monitoring event, pursuant to 40 CFR 257.94(e)(2) of the CCR Rule.

Section 2
Hydrogeology and Geochemistry

2.1 Site Hydrogeology

Historical subsurface investigations have identified the following three stratigraphic horizons of the Jackson Group (Kresse, et. al., 2014) and their associated hydrogeology for the CCR Unit and the CADL:

- **Stratum 1. Interbedded Clay, Silt, and Sand.**
  Stratum 1 ranges from approximately 10 to 55-feet thick and consists of interbedded silty sand (SM), clayey sand (SC), silts (ML and MH), and clay (CL and CH). Occasional deposits of carbonaceous material are present throughout Stratum 1. Based on the results of in-situ slug tests, hydraulic conductivity values range from 1.3 x 10^{-3} to 9.15 x 10^{-8} cm/sec;
- **Stratum 2. Clay.**
  Stratum 2 ranges from approximately 10 to 55-feet thick and consists of a very stiff clay (CH) with occasional silt and/or very fine-grained sand laminations. Occasional deposits of carbonaceous mater are present throughout Stratum 2. Based on the results of in-situ slug tests, hydraulic conductivity values range from 7.10 x 10^{-8} ;
- **Stratum 3. Clayey and Silty Sand.**
  Stratum 3 ranges from approximately 5 to 20-feet thick and consists primarily of clayey sand (SC) and/or silty sand (SM). A poorly graded, fine-grained sand (SM) was identified in one piezometer. The upper limits of Stratum 3 were encountered at elevations of 263 to 289-feet NGVD (depths ranging from 19 to 97-feet bgs). Based on results of in-situ slug tests, hydraulic conductivity was determined to be spatially variable and ranged from 2.80 x 10^{-7} to 9.80 x 10^{-11} cm/sec; and
- **Underlying Clay.**
  A clay unit underlies Stratum 3 and is described as a very dark grey clay that is highly laminated with light grey silt and very fined-grained sand. Based on results of an in-situ slug test, the vertical hydraulic conductivity was 3.7 x 10^{-8} cm/sec.

It was concluded that Stratum 1 was not laterally continuous across the approximately 153-acre landfill. The estimated calculated seepage velocities in Stratums 1 and 3 were as follows:

- Stratum 1: 1-1.59 feet/year; and
- Stratum 3: 0.0067 to 41.37 feet/year.

While Stratum I and Stratum III have been monitored per the CCR Rule since October 2015, it is unclear whether Stratum I and Stratum III are aquifers that are capable of providing sustainable well yields consistent with USEPA aquifer use criteria (*e.g.*, 0.1 gallons per minute). This uncertainty is based on the following evidence:

- Stratum I is present to the west of the CADL and only present within the western portion of the ADEQ-permitted boundaries of the CADL, approximately corresponding to the boundaries of the closed portions of the CADL. The CCR Unit and Stratum I are not continuous to the east across the entire footprint of the CADL;
- In-situ hydraulic conductivities are low to very low for both Stratum I and Stratum III, indicating that sustainable well yields may not be obtainable from Stratum I and Stratum III at volumes that meet the minimum USEPA well use criteria (*e.g.*, 0.1 gallons per minute); and
- During the quarterly and semiannual detection monitoring events performed from October 2015 through December 2024, which have been performed using the low-flow purge and sample methodology, the sampling teams have consistently documented that turbidity values are often greater than 10 Nephelometric Turbidity Units (NTU). Furthermore, wells have been pumped dry during sampling for both Stratum I and Stratum III, indicating that neither sustainable well yields nor useable drinking water are associated with Stratum I and Stratum III.

To evaluate this uncertainty, EAL began performing hydrogeologic investigations during 2019 and 2020, continuing through 2021 to evaluate both the stratigraphy and hydrogeology beneath the CCR Unit and to identify the aquifer(s) making up the uppermost aquifer system at the CCR Unit and CADL and the appropriateness of the current Certified Monitoring Well Network.

2.2 General Groundwater Quality

Regionally, groundwater quality in the Jackson Group consists of a sodium- and calcium-sulfate water type, with generally poor water quality (FTN 2014, Kresse et. al 2014). Reported water quality concentrations for select secondary drinking water contaminants compared to USEPA secondary maximum contaminant levels (MCLs) are provided in the table below.

Jackson Group Groundwater Water Quality

Constituent	Concentration Range		USEPA Secondary MCL
	Low	High	
Iron (mg/L)	0.05	19	0.3
pH (s.u.)	2.9	8.0	6.5 - 8.5
Sulfate (mg/L)	0.6	3,080	250
TDS (mg/L)	11	5,330	500

As noted in the table above, the natural range of groundwater quality within the Jackson Group, which includes both Stratum I and Stratum III, exceeds the secondary drinking water MCLs established by the USEPA for drinking water or, in the case of pH, is less than its secondary MCL. Finally, the results of historical groundwater monitoring at the Plant conducted from 1991 through 1996 showed that normal indicator parameters were masked by naturally elevated concentrations of the monitored constituents (FTN 2014, TRC 2018a).

2.3 Groundwater Geochemistry

Understanding the geochemistry of groundwater is essential to examining the groundwater monitoring data, explaining the relationships between the characteristics, and analyzing natural as well as anthropogenic impacts on groundwater systems. Source apart, geochemical processes play an important role in controlling the chemical composition of groundwater, including carbonate equilibrium, oxidation-reduction reactions and adsorption-desorption processes. Based the site geological conditions, several groundwater parameters are discussed as follows, including boron, fluoride, sulfate, calcium, TDS and pH.

2.3.1 Boron in Groundwater

Boron is normally considered as a minor constituent in groundwater as it is generally present in low concentrations (Palmucci & Rusi, 2014). Source apart, the primary origin of boron in groundwater is the process of sorption and desorption to the mineral surfaces including rocks and soils (Ravenscroft & McArthur, 2004). The regulatory guideline values of boron in drinking water are given at 0.5 mg/L by WHO and 0.9 mg/L by USEPA in human consumption for long-term exposure (WHO, 2008; USEPA, 2008). Boron is often cited as contamination tracer and usually occurs as a non-ionized form as H_3BO_3 in soils at pH<8.5, but above this pH, it exists as an anion, $B(OH)_4^-$ (Upadhyaya et al., 2014).

The factors that may influence the boron concentration in groundwater include weathering, human activity, evaporative concentration, ion-exchange, electrical conductivity (EC), and pH. Ravenscroft & McArthur (2004) studied the mechanism of regional boron enrichment groundwater and the results indicated that the main process that caused high boron enrichment in groundwater was the flushing by fresh groundwater other than geological setting, climate or age. The desorption of Boron from mineral surfaces could be affected by pH, ionic strength, salinity and HCO_3/CO_3. Decreasing of pH will increase the dissolution of boron from the mineral surfaces. Boron adsorption favors high pH and boron desorption favors low pH on rocks, soils and organic matters (Hollis et al., 1988; Keren & Communar, 2009; Tabelin et al., 2014).

A few more research studies confirmed that the presence of boron in groundwater depends on the EC (salinity), such that it increases with increasing EC. Halim et al. (2010) reported that the increasing of Cl^- concentration contributes to increase in EC value since a strong linear correlation ($R^2 = 0.88$) between EC and Cl^- was observed. Palmucci & Rusi (2014) observed a clear correlation between the high concentrations of boron and the chloride-sodium facies, which are characterized by high saline content, negative redox potential, and low value of the SO_4^{2-}/Cl^- ratio. Rodriguez-Espinosa et al. (2020) found that the Boron concentration in groundwater was related to the SO_4^{2-} and age affect.

Regarding to the Boron concentration level on the sites, the main source of Boron is more natural than anthropogenic. Therefore, the detected increasing of Boron concentration is likely due to the geochemistry condition changes, such as pH, ion exchanges, EC and salinity.

2.3.2 Sulfate in Groundwater

Sulfate is ubiquitous in groundwater, with both natural and anthropogenic sources. There are many potential sources of sulfate including mineral dissolution, atmospheric deposition, and other anthropogenic sources (mining, fertilizer, synthetic detergents, industrial wastewater etc.) (Miao et al., 2012). As water moves through soil and rock formations that contain sulfate minerals, some of the sulfate dissolves into the groundwater. Minerals that contain sulfate include magnesium sulfate (Epsom salt), sodium sulfate (Glauber's salt), and calcium sulfate (gypsum). Gypsum is an important contributor to the high levels of sulphate in many aquifers of the world. Higher levels of sulfate in groundwater are common in the western part of the United States (MDH, 2008).

Sulfate is mobile in soil and inputs to soil will impact groundwater eventually. Many research studies indicated that atmospheric deposition, dissolution of gypsum, oxidation of sulfide mineral and anthropogenic inputs will contribute to sulfate. Based on the geological condition of the site, atmospheric deposition and anthropogenic activities could be the main factors (Einsiedl & Mayer, 2005; Pu et al., 2012).

2.3.3 Calcium in Groundwater

Calcium is one of the most important ionic constituents in groundwater (Razowska-jaworek, 2014). Water-rock interaction occurs when water meets rocks or minerals, limestone, marble, calcite, dolomite, gypsum, fluorite and apatite. Natural dissolution of carbonate rocks and minerals is the primary source of calcium in groundwater (Jiang et al., 2009). Calcium is an important determinant of water hardness (Ca^{2+}), while magnesium is the other hardness determinant. The most common shallow groundwater type is Ca-HCO_3 dominated and Ca(Mg)-HCO_3 dominated.

A literature review indicates the major factors that may influence the calcium concentration in groundwater include rock weathering, pH, electrical conductivity and anthropogenic activities (mining, concrete material dissolution, fertilizer etc.) (Hájek et al., 2021; Schot & Wassen, 1993; Shi et al., 2018). Based on the geological condition of the site, pH, electrical conductivity and anthropogenic activities could be the potential reasons for the calcium SSI.

2.3.4 TDS in Groundwater

Total dissolved solids represent the combined total of inorganic and organic substances contained in the groundwater, and it can be a general indicator of water quality. These solids are primarily minerals, salts, and organic matters, which may originate from sources such as weathering of minerals, urban runoff, sewage, effluent discharges, agricultural, decaying organisms, and other human activities (de-icing roads, water softer use). Common salts that contribute to TDS are sodium, chloride, calcium, magnesium, potassium, sulfates, and bicarbonates (Olumuyiwa I. Ojo, 2012).

TDS levels in groundwater is usually higher than surface water due to the longer contact time with the underlying rocks and sediments. Since many minerals are water soluble, high concentrations can accumulate over time through the constantly reoccurring process of precipitation and evaporation.

TDS is related to other water quality parameters like hardness, which may occur if the high TDS content is due to the presence of carbonates. A few research studies simulated the relationship between TDS and other groundwater parameters such as EC and salinity, using different models. Due to the complicated geological conditions, the observation was not consistent at different study sites (Atekwana et al., 2004; Banadkooki et al., 2020; Poursaeid et al., 2020).

2.3.5 pH in Groundwater

Groundwater pH is an important aspect to consider in the monitoring and management of CCR landfill sites, as changes in pH can affect the quality of groundwater and the potential for release of contaminants. The potential reasons for pH changes in groundwater are as following:

- Changes in water flow patterns. Changes in the flow patterns of groundwater can cause the mixing of different water sources with varying pH levels, resulting in an overall increase in the pH of the groundwater at the site.
- Drainage from adjacent areas. Groundwater from adjacent areas with higher pH levels may be flowing into the landfill site and raising the overall pH of the groundwater at the site.
- Changes in geochemistry condition. Geochemistry can play a role in affecting the pH of groundwater at a landfill site, such as mineral dissolution, pH buffering capacity, redox

reactions, and groundwater-rock interactions (Edmunds & Smedley, 1996; Wilkin & DiGiulio, 2010).

1) Mineral dissolution. Minerals present in the surrounding soil can dissolve and release basic or acidic compounds into the groundwater, affecting the pH, e.g., the dissolution of calcium carbonate can increase the pH of the groundwater by releasing carbonate ions, the dissolution and oxidation of pyrite can decrease the pH of groundwater by releasing hydrogen ions.
2) pH buffering capacity. The presence of minerals with a high buffering capacity in the surrounding soil can help to regulate the pH of the groundwater, preventing drastic changes in response to other factors. For example, the presence of minerals like calcite and dolomite can buffer the groundwater pH, helping to maintain a relatively stable pH even in the presence of acidic compounds.
3) Redox reactions. The oxidation-reduction reactions that occur in the surrounding soil can impact the pH of the groundwater. The oxidation of iron-sulfide minerals can result in the release of sulfuric acid, which can lower the pH of groundwater. The oxidation of reduced sulfur species to sulfate, which can increase the pH of groundwater (Jacks, 2017).
4) Groundwater-rock interactions. The interaction between groundwater and the rocks and minerals in the surrounding soil can affect the pH of the groundwater. For example, groundwater can dissolve or release basic or acidic compounds from the minerals in the rock, affecting the pH.

Section 3
Alternate Source Demonstration

Pursuant to 40 CFR 257.94(e)(2), EAL may demonstrate that a source other than the CCR Unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. As discussed previously, the 2nd Half 2024 semiannual detection monitoring event was performed in November 2024. Statistical analysis of the 2nd Half 2024 semiannual detection monitoring data was performed pursuant to 40 CFR 257.93(f) and (g) and in accordance with the Statistical Methods Certification (TRC 2017b) and the Statistical Analysis Plan (FTN 2017a). Based on either increasing trends at 98% confidence levels using Sen's Slope test and/or intrawell prediction limits statistical analyses, the following 12 SSIs were identified and summarized in Table 1:

- Calcium (MW-102S);
- Boron (MW-103S);
- Calcium, sulfate and TDS (MW-106S);
- Boron, calcium, sulfate, and TDS (MW-111S);
- Boron, calcium, and TDS (MW-112D).

Other Appendix III constituent concentrations were within their trends at 98% confidence levels using Sen's slope test and/or intrawell prediction limits in the CCR Rule groundwater monitoring system wells.

A discussion for each of the individual SSIs identified for the Stratum I and III wells and associated evidence demonstrating that the 12 SSIs were not caused by a release from the CCR Unit is provided in the subsections below.

Table 1 SSIs – November 2024 Semiannual Detection Monitoring Event

Stratum	Well	Analyte	Value (mg/L)	Intrawell Prediction Limit (mg/L)	SI by Sen's Slope test
I	102S	Calcium	15.6	13.8	Y
	103S	Boron	0.608	0.307	N
	106S	Calcium	41.7	23.8	Y
	106S	Sulfate	802	603.5	Y
	106S	TDS	1200	827.1	Y
	111S	Boron	7.1	4.495	Y
	111S	Calcium	101	36.8	Y
	111S	Sulfate	768	397.5	Y
	111S	TDS	1280	541	Y
III	112D	Boron	0.294	0.2521	Y
	112D	Calcium	41.4	22.5	Y
	112D	TDS	317	204.9	Y

3.1 Calcium at MW-102S

The calcium SSI identified at MW-102S is a result of natural variation in groundwater quality and potential infiltration of surface water. The following evidence supports this determination:

- Calcium was detected in MW-102S at a concentration of 15.6 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 13.8 mg/L. Compared to the value of 11.3 mg/L in the May 2024 sample, the calcium concentration stayed in a relatively stable range. The Mann-Kendal statistic of 140 exceeded the critical value of 95 indicating a significant increasing trend at the 98% confidence level. Calcium concentrations in Stratum I of this site have varied from 0.755 to 118 mg/L among all monitoring wells. The calcium concentration of 15.6 mg/L detected in MW-102S during the 2nd Half 2024 semiannual detection monitoring event stayed in the low concentration range. The calcium exceedance detected at MW-102S could be caused by the natural variation in groundwater quality and potential infiltration of surface water.

3.2 Boron at MW-103S

The boron SSI identified at MW-103S is a result of the groundwater geochemistry conditions, the potential impact of CCR disposed at the CADL prior to October 19, 2015 and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-103S. The following evidence supports this determination:

- Boron was detected in MW-103S at a concentration of 0.608 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 0.307 mg/L. Compared to the value of 0.218 mg/L in the May 2024 sample, the boron concentration increased 180%. No significant increasing trend was observed by the Mann-Kendal statistic model. The boron exceedance in MW-103S could be a result of groundwater geochemistry conditions change which favors minerals dissolution. As discussed in Section 2.2, the Jackson Group groundwater is sodium- and calcium-sulfate water type. Sodium could be another main contribution to the boron exceedance. The acidic groundwater (pH value of 5.02) could be one of the potential reasons.
- Based on review of potentiometric surface mapping, locations of closed portions of the CADL, and the CCR Unit relative to MW-103S, MW-103S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR Unit. Therefore, concentrations measured in MW-103S may be more reflective of pre-CCR Rule disposal rather than of the Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-103S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR

Unit. This surface water ultimately migrates from the MW-103S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per Entergy's NPDES permit. Based on the close proximity of this surface water to MW-103S, it appears likely that surface water infiltration may have impacted the MW-103S monitoring results.

3.3 Calcium at MW-106S

The calcium SSI identified at MW-106S is a result of the acidic geochemistry condition in groundwater, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-106S. The following evidence supports this determination:

- Calcium was detected in MW-106S at a concentration of 41.7 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 23.8 mg/L. Compared to the value of 38 mg/L in the May 2024 sample, the calcium concentration increased approximately 10%. The Mann-Kendal statistic of 206 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. As discussed in Section 2.3, pH and EC could affect calcium concentrations in groundwater. Low pH values of 3.8-4.0 were detected in the past few years, which indicates the groundwater in this area is acidic and it was related to pre-CCR Rule disposal source or natural geochemistry conditions. The acidic groundwater condition favors the dissolution of calcium from soil and mineral surfaces to water phase. The significant increasing trend of calcium from 16 mg/L in 2015 to 41.7 mg/L in 2024 could be a result of the acidic geochemistry condition. The increasing cation and anion concentrations will also lead to the increasing EC, which will affect other metals dissolution.
- Calcium concentrations in Stratum I of this site have varied from 0.755 to 118 mg/L among all monitoring wells during CCR detection monitoring. The calcium concentration of 41.7 mg/L measured at MW-106S during the 2nd Half 2024 semiannual detection monitoring event stayed in the low-middle concentration range. Therefore, the calcium concentration measured at MW-106S is within the range of natural variation in groundwater quality.
- Based on review of potentiometric surface mapping, locations of closed portions of the CADL underlying the CCR Unit, and the CCR Unit relative to MW-106S, it appears that MW-106S may monitor groundwater associated with the underlying pre-CCR Rule closed portions of the CADL rather than the CCR Unit; therefore, concentrations measured in MW-106S are likely more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-106S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-106S area via surface water swales

within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-106S, it appears likely that surface water infiltration may have impacted the MW-106S monitoring results.

3.4 Sulfate at MW-106S

The sulfate SSI identified at MW-106S is a result of natural geochemistry condition in soil and groundwater, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-106S. The following evidence supports this determination:

- Sulfate was detected in MW-106S at a concentration of 802 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 604 mg/L. Compared to the value of 752 mg/L in the May 2024 sample, the sulfate concentration increased by 7%. The Mann-Kendal statistic of 197 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. The increasing trend of sulfate was consistent with TDS. The elevated sulfate concentration in the past three years could be caused by the acidic geochemistry condition discussed above or an anthropogenic source since sulfate is mobile in soils and can get into groundwater via surface water infiltration. Another potential reason is the natural occurrence of sulfide minerals in the soil, such as pyrite. The oxidation of sulfide minerals will slowly release sulfate and hydrogen ion into groundwater, which will lead to the increasing of sulfate and decreasing of pH.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-106S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-106S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-106S, it appears likely that surface water infiltration may have impacted the MW-106S monitoring results.
- Based on review of potentiometric surface mapping and locations of closed portions of the CADL, and the CCR Unit relative to MW-106S, MW-106S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR unit; therefore, concentrations measured in MW-106S may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.

3.5 TDS at MW-106S

The TDS SSI identified at MW-106S is a result of the acidic groundwater geochemistry condition, sodium sulfate source, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-106S. The following evidence supports this determination:

- TDS was detected in MW-106S at a concentration of 1,200 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 827 mg/L. The Mann-Kendal statistic of 192 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. Compared to the TDS value of 1,120 mg/L in the May 2024 sample, 1,404 mg/L in November 2023 sample, and 1,200 mg/L in the June 2023 sample, the TDS concentration was stable. As discussed in Section 2.2, the Jackson Group groundwater is sodium- and calcium-sulfate water type. Sodium could be another main contribution to the TDS exceedance with calcium and sulfate. High sodium concentration can also cause the fluoride exceedance. The acidic groundwater could be one of the potential reasons. An alternate source containing sodium sulfate should also be considered, which can be mineral dissolution, surface water flux or atmospheric deposition.
- Based on review of potentiometric surface mapping, locations of closed portions of the CADL, and the CCR Unit relative to MW-106S, MW-106S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR Unit. Therefore, concentrations measured in MW-106S may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-106S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-106S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-106S, it appears likely that surface water infiltration may be impacting the MW-106S monitoring results.

3.6 Boron at MW-111S

The boron SSI identified at MW-111S is a result of natural groundwater geochemistry conditions with low pH and high EC, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-111S. The following evidence supports this determination:

- Boron was detected in MW-111S at a concentration of 7.1 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 4.495 mg/L. Compared to the value of 6.45 mg/L in the May 2024 sample, the boron concentration decreased by 10%. The Mann-Kendal statistic of 206 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. As discussed in Section 2.3, the main factors that may influence boron concentration in groundwater are pH and EC. Decreasing of pH will increase the dissolution of boron from the mineral surfaces. Boron in groundwater will increase with the increasing of EC. A low pH value of 4.1 was detected in the November 2024 sample and the pH of groundwater in the area of MW-111S stayed in a steady range of 3.6 to 4.5 in the past five years. The acidic groundwater condition favors the boron dissolution from soil and mineral surface. The increasing TDS and sulfate in MW-111S demonstrates that the groundwater in this area has relatively high EC, which will cause the increasing of boron concentration in groundwater. Based on the consistent boron levels, the significant increasing trend of boron is more likely relative to the geochemistry conditions with low pH and high EC other than a contamination source.
- Based on review of potentiometric surface mapping and locations of closed portions of the CADL, and the CCR Unit relative to MW-111S, MW-111S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR Unit. Therefore, concentrations measured in MW-111S may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-111S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-111S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-111S, it appears likely that surface water infiltration may be impacting the MW-111S monitoring results.

3.7 Calcium at MW-111S

The calcium SSI identified at MW-111S is a result of natural groundwater geochemistry conditions with low pH and high EC, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-111S. The following evidence supports this determination:

- Calcium was detected in MW-111S at a concentration of 101 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 36.8 mg/L. Compared to the value of 108 mg/L in the May 2024 sample, the calcium concentration decreased by 6%. Normality analysis of the calcium data set at MW-111S was non-normal requiring trend analysis of the data set to determine a potential significance increase. The Mann-Kendal statistic of 207 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. As discussed in Section 2.3, pH and EC could affect calcium concentrations in groundwater. A low pH value of 4.1 was detected in the November 2024 and the pH of groundwater in the area of MW-111S stayed in a steady range of 3.6 to 4.5 in the past five years. The acidic condition favors the dissolution of calcium from soil and mineral surfaces to water phase. The relatively high EC in groundwater discussed above can also increase the calcium concentration. The significant increasing trend of calcium could be a result of the natural geochemistry conditions with low pH and high EC.

- Based on review of potentiometric surface mapping, locations of closed portions of the CADL, and the CCR Unit relative to MW-111S, MW-111S may monitor groundwater associated with the underlying pre-CCR Rule closed portions of the CADL rather than the CCR Unit. Therefore, concentrations measured in MW-111S may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-111S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-111S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-111S, it appears likely that surface water infiltration may have impacted the MW-111S monitoring results.

3.8 Sulfate at MW-111S

The sulfate SSI identified at MW-111S is a result of natural groundwater geochemistry condition of low pH and potential oxidation of sulfide minerals, potential impact of CCR disposed at the CADL prior to October 19, 2015, and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-111S. The following evidence supports this determination:

- Sulfate was detected in MW-111S at a concentration of 768 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 398 mg/L. Compared to the value of 756 mg/L in the May 2024 sample, the sulfate concentration was consistent. The Mann-Kendal statistic of 191 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. The sulfate increasing was consistent with the TDS increasing, which indicated that more salts were dissolved into groundwater. It could be caused by the acidic geochemistry condition discussed above or an anthropogenic source since sulfate is soluble in soils and can get into groundwater via surface water infiltration.

Another potential reason is the naturally occurrence of sulfide minerals in the soil, such as pyrite. The oxidation of sulfide minerals will slowly release sulfate and hydrogen ion into groundwater, which will lead to the increasing of sulfate and decreasing of pH.

- Based on review of potentiometric surface mapping and locations of closed portions of the CADL, and the CCR Unit relative to MW-111S, MW-111S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR Unit; therefore, concentrations measured in MW-111S may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-111S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-111S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-111S, it appears likely that surface water infiltration may have impacted the MW-111S monitoring results.

3.9 TDS at MW-111S

The TDS SSI identified at MW-111S is a result of the acidic groundwater geochemistry conditions with natural occurrence of sulfide minerals, sodium sulfate source, the potential impact of CCR disposed at the CADL prior to October 19, 2015 and potential infiltration of surface water impacted by on-site CCR into the subsurface in the area of MW-111S. The following evidence supports this determination:

- TDS was detected in MW-111S at a concentration of 1,280 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 541 mg/L. Compared to the value of 1,270 mg/L in the May 2024 sample, the TDS concentration was consistent. The Mann-Kendal statistic of 225 exceeded the critical value of 89 indicating a significant increasing trend at the 98% confidence level. As discussed in Section 2.2, the Jackson Group groundwater is sodium- and calcium-sulfate water type. Sodium could be another main contribution to the TDS exceedance with the increasing of calcium and sulfate. High sodium concentration can also cause the fluoride exceedance. The acidic groundwater could be one of the potential reasons. An alternate source containing sodium sulfate should also be considered, which can be mineral dissolution, surface water flux or atmospheric deposition.
- Based on review of potentiometric surface mapping, locations of closed portions of the CADL, and the CCR Unit relative to MW-111S, MW-111S may monitor groundwater associated with the pre-CCR Rule closed portions of the CADL rather than the CCR Unit.

Therefore, concentrations measured in MW-111S may be more reflective of pre-CCR Rule disposal rather than of the Unit.

- Surface water that has come into contact with on-site CCR at the CCR Unit has migrated from the perimeter drainage swale for the CCR Unit due to periodic build-up of sediment within the perimeter surface water swale. When this build-up occurs, surface water flows out of the swale and over the adjoining access road and then to the area of MW-111S. This drainage swale carries surface water runoff from closed portions of the CADL as well as from the CCR Unit. This surface water ultimately migrates from the MW-111S area via surface water swales within the ADEQ-permitted CADL footprint, with ultimate discharge into the site surge pond as per EAL's NPDES permit. Based on the close proximity of this surface water to MW-111S, it appears likely that surface water infiltration may have impacted the MW-111S monitoring results.

3.10 Boron at MW-112D

The boron SSI identified at MW-112D is a result of natural variation in groundwater quality and potential impact of CCR disposed at the CADL prior to October 19, 2015. The following evidence supports this determination:

- Boron was detected in MW-112D at a concentration of 0.294 mg/L in the November 2024 sample, which was consistent with 0.288 mg/L in the May 2024 sample. This concentration exceeds the intrawell prediction limit of 0.252 mg/L. The Mann-Kendal statistic of 230 exceeded the critical value of 95 indicating a significant increasing trend at the 98% confidence level. Boron concentrations measured at MW-118D (background well for Stratum III) have ranged from 0.274 to 0.355 mg/L. Therefore, the boron exceedance at MW-112D is within the range of variation in background groundwater quality and is not a potential environmental concern.
- Based on review of potentiometric surface mapping, locations of closed portions of the CADL, and the CCR Unit relative to MW-112D, MW-112D is located immediately adjacent (approximately 25 feet) to historic fill, but approximately 950 feet from the CCR Unit. Therefore, the concentrations of boron measured in MW-112D may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- Groundwater flow velocities are estimated to be approximately <1 ft/year to 10 ft/year (TRC 2018a). Since, MW-112D is located approximately 950 feet from the CCR unit, any release from the CCR Unit would be detected in Stratum III at MW-112D within approximately 95 years, which is significantly longer than the CCR Unit has been in operation. Therefore, the concentration of boron at MW-112D likely represents either potential pre-CCR Rule migration from historic fill or background groundwater quality for Stratum III.

3.11 Calcium at MW-112D

The calcium SSI identified at MW-112D is a result of natural variation in groundwater quality and potential impact of CCR disposed at the CADL prior to October 19, 2015. The following evidence supports this determination:

- Calcium was detected in MW-112D at a concentration of 41.4 mg/L in the November 2024 sample, which was consistent with 42.4 mg/L in the May 2024 sample. This concentration exceeds the intrawell prediction limit of 22.5 mg/L. The Mann-Kendal statistic of 267 exceeded the critical value of 95 indicating a significant increasing trend at the 98% confidence level. The relatively low TDS indicated that EC in groundwater is not a factor to the calcium exceedance. Calcium concentrations measured at MW-118D (background well for Stratum III) have ranged from 68.4 to 83.2 mg/L. Therefore, the calcium exceedance at MW-112D is within the range of variation in background groundwater quality and is not a potential environmental concern.
- Based on review of potentiometric surface mapping, locations of historic fill, locations of closed portions of the CADL, and the CCR Unit relative to MW-112D, MW-112D is located immediately adjacent (approximately 25 feet) to historic fill, but approximately 950 feet from the CCR Unit. Therefore, the concentrations of calcium measured in MW-112D may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- As discussed previously, groundwater flow velocities are estimated to be approximately <1 ft/year to 10 ft/year (TRC 2018a). Since, MW-112D is located approximately 950 feet from the CCR Unit, any release from the CCR Unit would be detected in Stratum III at MW-112D within approximately 95 years, which is significantly longer than the CCR Unit has been in operation. Therefore, the concentration of calcium at MW-112D likely represents either potential pre-CCR Rule migration from historic fill or background groundwater quality for Stratum III.

3.12 TDS at MW-112D

The TDS SSI identified at MW-112D is a result of natural variation in groundwater quality and potential impact of CCR disposed at the CADL prior to October 19, 2015. The following evidence supports this determination:

- TDS was detected in MW-112D at a concentration of 317 mg/L in the November 2024 sample, which exceeded the intrawell prediction limit of 205 mg/L. Compared to the value of 327 mg/L in the May 2024 sample, the TDS concentration was consistent. The Mann-Kendal statistic of 248 exceeded the critical value of 95 indicating a significant increasing trend at the 98% confidence level. TDS concentrations measured at MW-118D (background well for Stratum III) have ranged from 415 to 484 mg/L. A review of groundwater parameters in Stratum III indicates that sulfate is a great contributor to TDS, but the sulfate concentration at MW-112D is not detectable (less than 5 mg/L). Therefore, the TDS exceedance at MW-112D is within the range of variation in background groundwater quality and is not a potential environmental concern.

- Based on review of potentiometric surface mapping, locations of historic fill, locations of closed portions of the CADL, and the CCR Unit relative to MW-112D, MW-112D is located immediately adjacent (approximately 25 feet) to historic fill, but approximately 950 feet from the CCR Unit. Therefore, the concentrations of TDS measured in MW-112D may be more reflective of pre-CCR Rule disposal rather than of the CCR Unit.
- As discussed previously, groundwater flow velocities are estimated to be approximately <1 ft/year to 10 ft/year (TRC 2018a). Since, MW-112D is located approximately 950 feet from the CCR unit, any release from the CCR Unit would be detected in Stratum III at MW-112D within approximately 95 years, which is significantly longer than the CCR Unit has been in operation. Therefore, the concentration of TDS at MW-112D likely represents either potential pre-CCR Rule migration from the historic fill or background groundwater quality for Stratum III.

Section 4
Conclusions

The information provided in this report serves as the ASD prepared in accordance with 40 CFR 257.94(e)(2) of the CCR Rule. Statistical evaluation identified 12 potential SSIs in four monitoring wells in Stratum I and one monitoring well in Stratum III. This ASD has demonstrated the following lines of reasoning that support alternative sources for the identified SSIs:

- Historical data indicated acidic groundwater geochemistry conditions in MW-102S, MW-103S, MW-106S, and MW-111S. The 9 SSIs identified in Stratum I are related to the natural groundwater geochemistry conditions, such as low pH, high electrical conductivity, potential presence of sulfide minerals in soils and relatively high oxidation-reduction potential.
- The 3 SSIs identified in Stratum III wells MW-112D are mostly within the natural variation in groundwater quality compared to MW-118D, which likely represents background natural groundwater quality of Stratum III due to its location to CCR Unit and groundwater flow velocities.
- Releases from historic fill or portions of the CADL closed before the effective date of the CCR Rule (October 19, 2015); and/or
- Surface water that has come into contact with on-site CCR and has migrated into the subsurface.

Therefore, the SSIs determined based on statistical analysis of the 2nd Half 2024 semiannual detection monitoring event performed in November 2024 are not due to a release from the CCR Unit to Stratums I and III of the Jackson Group. Based on the information provided in this ASD report, EAL will continue to conduct semiannual detection monitoring in accordance with 40 CFR 257.94 at the Certified Monitoring Well Network for the CCR Unit.

Section 5
Certification

I hereby certify that the alternative source demonstration presented within this document for the Entergy White Bluff Plant Coal Ash Disposal Landfill CCR Unit has been prepared to meet the requirements of Title 40 CFR §257.94(e) 2 of the Federal CCR Rule. This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.94(e) 2.

Name: Nakia Addison P.E. **Expiration Date:** December 31, 2027

Company: TRC Environmental Corporation **Date:** December 1, 2025

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
NO. 22533
NAKIA W. ADDISON

12/1/2025

(SEAL)

Section 6
References

Atekwana, E. A., Atekwana, E. A., Rowe, R. S., Werkema, D. D., & Legall, F. D. (2004). The relationship of total dissolved solids measurements to bulk electrical conductivity in an aquifer contaminated with hydrocarbon. Journal of Applied Geophysics, 56(4), 281–294.

Banadkooki, F. B., Ehteram, M., Panahi, F., Sh. Sammen, S., Othman, F. B., & EL-Shafie, A. (2020). Estimation of total dissolved solids (TDS) using new hybrid machine learning models. Journal of Hydrology, 587(February), 124989.

Brindha, K., & Elango, L. (2011). Fluoride in groundwater: Causes, implications and mitigation measures. Fluoride: Properties, Applications and Environmental Management, 113–136.

Chen, Q., Jia, C., Wei, J., Dong, F., Yang, W., Hao, D., Jia, Z., & Ji, Y. (2020). Geochemical process of groundwater fluoride evolution along global coastal plains: Evidence from the comparison in seawater intrusion area and soil salinization area. Chemical Geology, 552(July), 119779.

Einsiedl, F., & Mayer, B. (2005). Sources and Processes Affecting Sulfate in a Karstic Groundwater System of the Franconian Alb, Southern Germany. Environmental Science & Technology, 39(18), 7118–7125.

FTN. 2014. Supplemental Geotechnical and Hydrogeological Investigation Report, Entergy White Bluff Plant Class 3N Landfill. Prepared for Entergy Arkansas, Inc. Little Rock, AR: FTN Associates, Ltd. October 1, 2014.

FTN. 2017a. Statistical Analysis Plan, Entergy White Bluff Plant. Little Rock, AR: FTN Associates, Ltd.

FTN. 2017b. Groundwater Sampling and Analysis Plan, Entergy White Bluff Landfill. Little Rock, AR: FTN Associates, LTD.

Guo, H., Zhang, Y., Xing, L., & Jia, Y. (2012). Spatial variation in arsenic and fluoride concentrations of shallow groundwater from the town of Shahai in the Hetao basin, Inner Mongolia. Applied Geochemistry, 27(11), 2187–2196.

Hájek, M., Jiménez-Alfaro, B., Hájek, O., Brancaleoni, L., Cantonati, M., Carbognani, M., Dedić, A., Díte, D., Gerdol, R., Hájková, P., Horsáková, V., Jansen, F., Kamberović, J., Kapfer, J., Kolari, T. H. M., Lamentowicz, M., Lazarević, P., Mašić, E., Moeslund, J. E., …

Horsák, M. (2021). A European map of groundwater pH and calcium. Earth System Science Data, 13(3), 1089–1105.

Hollis, J. F., Keren, R., & Gal, M. (1988). Boron Release and Sorption by Fly Ash as Affected by pH and Particle Size. Journal of Environmental Quality, 17(2), 181–184.

Jiang, Y., Wu, Y., Groves, C., Yuan, D., & Kambesis, P. (2009). Natural and anthropogenic factors affecting the groundwater quality in the Nandong karst underground river system in Yunan, China. Journal of Contaminant Hydrology, 109(1–4), 49–61.

Keren, R., & Communar, G. (2009). Boron Sorption on Wastewater Dissolved Organic Matter: pH Effect. Soil Science Society of America Journal, 73(6), 2021–2025.

Kimambo, V., Bhattacharya, P., Mtalo, F., Mtamba, J., & Ahmad, A. (2019). Fluoride occurrence in groundwater systems at global scale and status of defluoridation – State of the art. Groundwater for Sustainable Development, 9(August 2018), 100223.

Kresse, T.M., P.D. Hays, K.R. Merriman, J.A. Gillip, D.T. Fugitt, J.L. Spellman, A.M. Nottmeier, D.A. Westerman, J.M. Blackstock, and J.L. Battreal. 2014. Aquifers of Arkansas—Protection, Management, and Hydrologic and Geochemical Characteristics of Groundwater Resources in Arkansas [USGS Scientific Investigations Report 2014–5149]. Prepared in Cooperation with the Arkansas Natural Resources Commission. Reston, VA: US Geological Survey. 334 pp.

Luo, W., Gao, X., & Zhang, X. (2018). Geochemical processes controlling the groundwater chemistry and fluoride contamination in the yuncheng basin, China—an area with complex hydrogeochemical conditions. PLoS ONE, 13(7).

MDH. (2008). Sulfate in well water. In Minnesota Department of Health, Well Management Section, Environmental Health Division.

Miao, Z., Brusseau, M. L., Carroll, K. C., Carreón-Diazconti, C., & Johnson, B. (2012). Sulfate reduction in groundwater: Characterization and applications for remediation. Environmental Geochemistry and Health, 34(4), 539–550.

Mondal, D., Gupta, S., Reddy, D. V., & Nagabhushanam, P. (2014). Geochemical controls on fluoride concentrations in groundwater from alluvial aquifers of the Birbhum district, West Bengal, India. Journal of Geochemical Exploration, 145, 190–206.

Olumuyiwa I. Ojo,. (2012). Groundwater: Characteristics, qualities, pollutions and treatments: An overview. International Journal of Water Resources and Environmental Engineering, 4(6), 162–170.

Palmucci, W., & Rusi, S. (2014). Boron-rich groundwater in Central Eastern Italy: a hydrogeochemical and statistical approach to define origin and distribution. Environmental Earth Sciences, 72(12), 5139–5157.

Poursaeid, M., Mastouri, R., Shabanlou, S., & Najarchi, M. (2020). Estimation of total dissolved solids, electrical conductivity, salinity and groundwater levels using novel learning machines. Environmental Earth Sciences, 79(19), 1–25.

Pu, J., Yuan, D., Zhang, C., & Zhao, H. (2012). Hydrogeochemistry and possible sulfate sources in karst groundwater in Chongqing, China. Environmental Earth Sciences 2012 68:1, 68(1), 159–168.

Ravenscroft, P., & McArthur, J. M. (2004). Mechanism of regional enrichment of groundwater by boron: the examples of Bangladesh and Michigan, USA. Applied Geochemistry, 19(9), 1413–1430.

Razowska-jaworek, L. (2014). Calcium and Magnesium in Groundwater. In Calcium and Magnesium in Groundwater.

Saxena, V., & Ahmed, S. (2001). Dissolution of fluoride in groundwater: a water-rock interaction study. Environmental Geology, 40(9), 1084–1087.

Schot, P. P., & Wassen, M. J. (1993). Calcium concentrations in wetland groundwater in relation to water sources and soil conditions in the recharge area. Journal of Hydrology, 141(1–4), 197–217.

Shi, X., Wang, Y., Jiao, J. J., Zhong, J., Wen, H., & Dong, R. (2018). Assessing major factors affecting shallow groundwater geochemical evolution in a highly urbanized coastal area of Shenzhen City, China. Journal of Geochemical Exploration, 184, 17–27.

Tabelin, C. B., Hashimoto, A., Igarashi, T., & Yoneda, T. (2014). Leaching of boron, arsenic and selenium from sedimentary rocks: II. pH dependence, speciation and mechanisms of release. Science of The Total Environment, 473–474, 244–253.

TRC. 2017. Statistical Methods Certification, White Bluff Steam Electric Generating Station, Redfield, Arkansas. Prepared for Entergy Arkansas Inc. Baton Rouge: TRC Environmental Corporation.

TRC. 2018a. Site Conceptual Model: Entergy White Bluff Plant Coal Ash Disposal Landfill, Redfield, Jefferson County, Arkansas. January 2018.

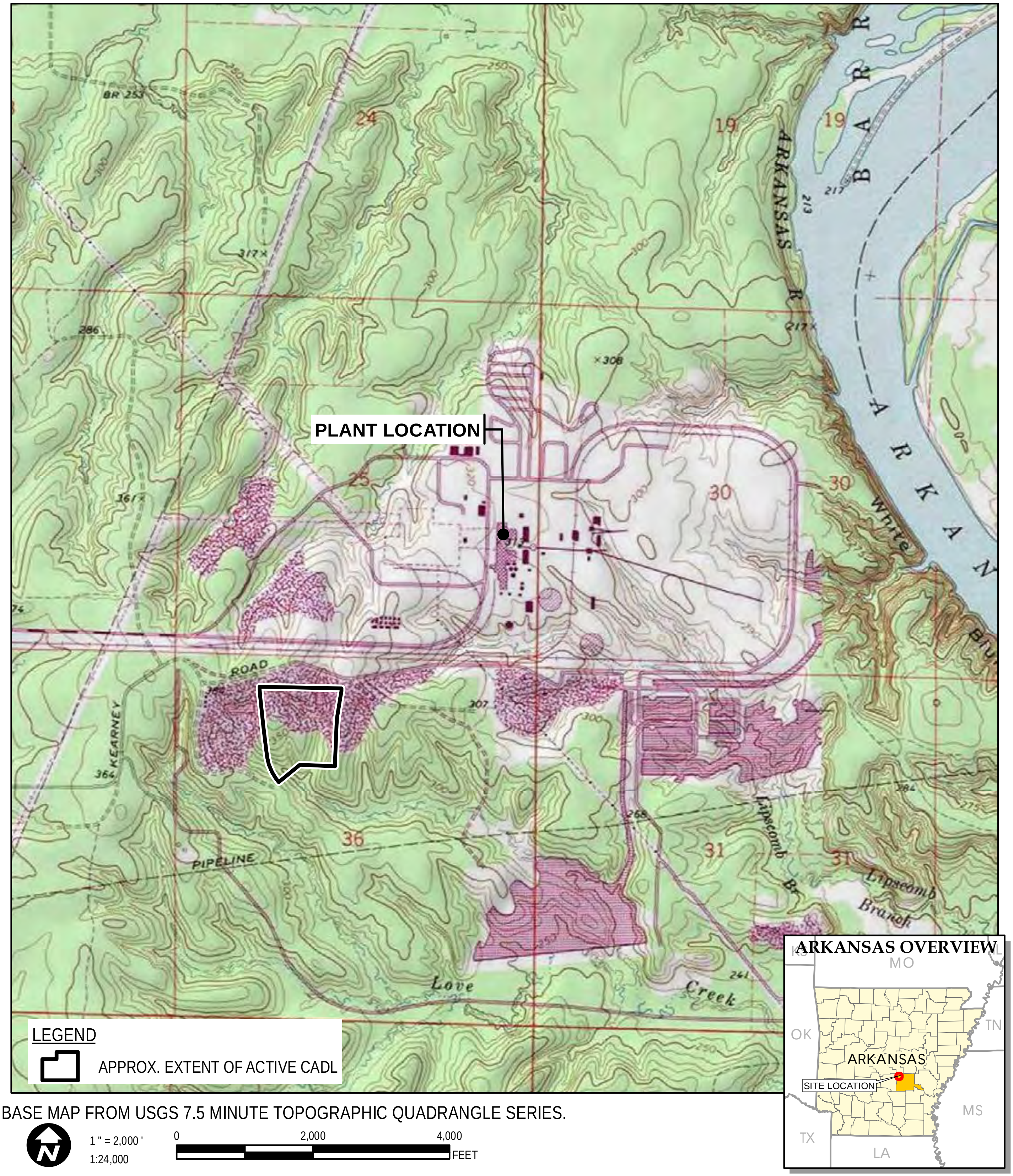
TRC. 2018b. Groundwater Monitoring System Certification, White Bluff Steam Electric Generating Station, Redfield, Arkansas. Prepared for Entergy Arkansas Inc. Baton Rouge: TRC Environmental Corporation.

Upadhyaya, D., Survaiya, M. D., Basha, S., Mandal, S. K., Thorat, R. B., Haldar, S., Goel, S., Dave, H., Baxi, K., Trivedi, R. H., & Mody, K. H. (2014). Occurrence and distribution of selected heavy metals and boron in groundwater of the Gulf of Khambhat region, Gujarat, India. Environmental Science and Pollution Research, 21(5), 3880–3890.

USEPA. (2008). Drinking Water Health Advisory For Boron. Office of Water U.S. Environmental Protection Agency Washington, DC, 822-R-08–0.

United States Environmental Protection Agency. 2017. Secondary Drinking Water Standards: Guidance for Nuisance Chemicals, March 8, 2017.

WHO. (2008). Guidelines for Drinking Water Quality, third ed. World Health Organization, Geneva.



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

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

TRC - GIS

PROJECT:

ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:

ENTERGY WHITE BLUFF PLANT LOCATION MAP

DRAWN BY:	S. MAJOR
CHECKED BY:	G. TIEMAN
APPROVED BY:	J. HOUSE
DATE:	JANUARY 2022
PROJ. NO.:	341458
FILE:	341458-001slm_20220105.mxd

FIGURE 1

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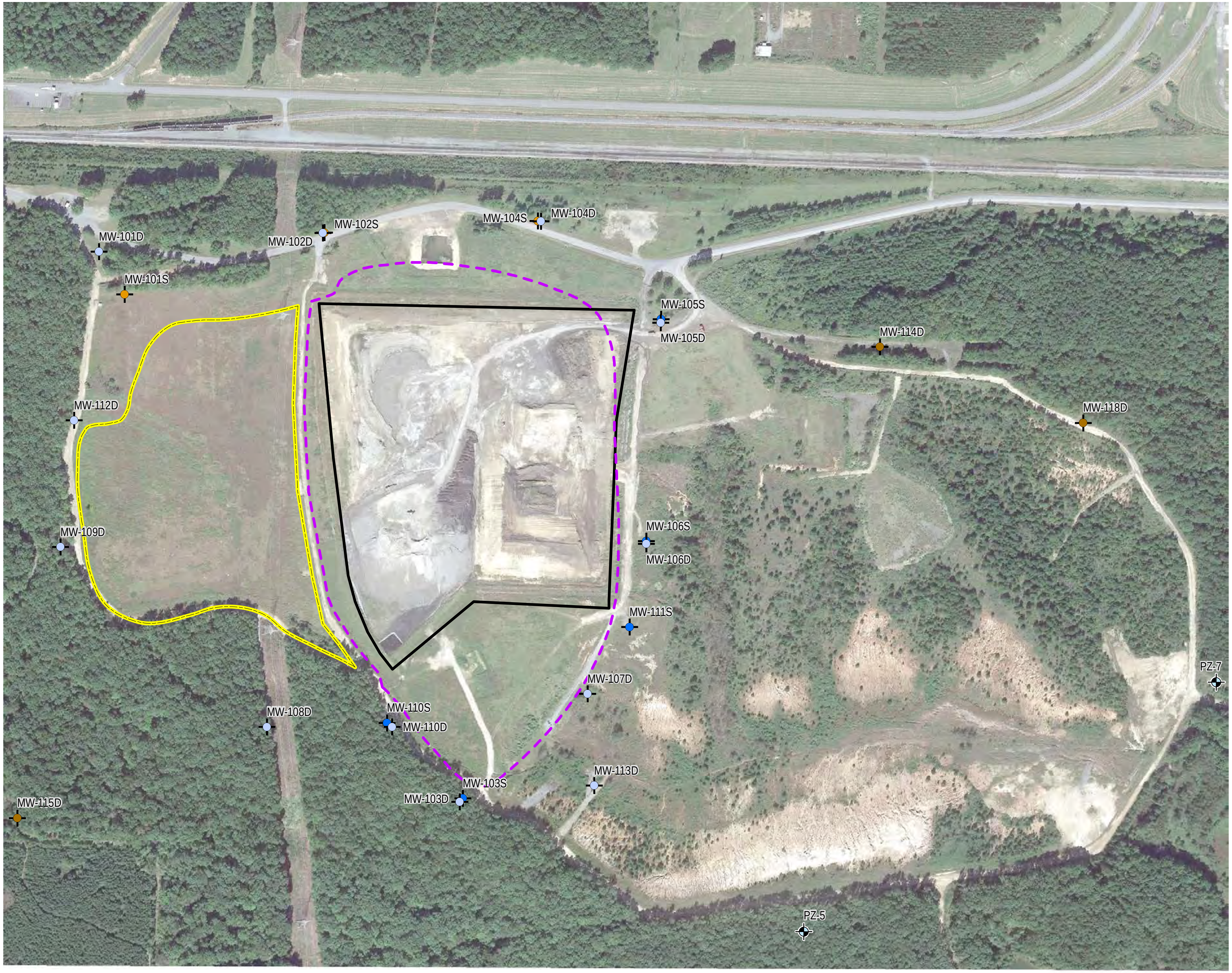

LEGEND

●	STRATUM I BACKROUND WELL
●	STRATUM I MONITORING WELL
●	STRATUM III BACKROUND WELL
●	STRATUM III MONITORING WELL
⊕	STRATUM III PIEZOMETER
▭	APPROX. EXTENT OF ACTIVE CADL
▭	APPROX. EXTENT OF CLOSED CADL
▭	HISTORIC FILL AREA

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO, 2018.
2. COAL ASH DISPOSAL LANDFILL (CADL)

0 400 800 Feet

1 " = 371 '

1:4,458

PROJECT:

ENTERGY WHITE BLUFF PLANT
1100 WHITE BLUFF ROAD
REDFIELD, ARKANSAS

TITLE:

CADL EXTENT AND CCR GROUNDWATER MONITORING LOCATIONS

DRAWN BY:	S. MAJOR	PROJ. NO.:	341458
CHECKED BY:	S. SELLWOOD	**FIGURE 2**	
APPROVED BY:	J. HOUSE		
DATE:	JANUARY 2022		

TRC

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FILE NO.: 341458-002_01052022.mxd

TRC - GIS

Coordinate System: NAD 1983 StatePlane Arkansas South FIPS 0302 Feet (Foot US)
Map Rotation: 0

Plot Date: 1/5/2022, 15:55:41 PM by DSTITCHER -- LAYOUT: ANSI B(11"x17")
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APPENDIX 1

Historical Data

Well	Date	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	TDS (mg/L)	Fluoride (mg/L)	pH (s.u.)	Sulfate (mg/L)
MW-101D	3/13/2017	0.129(J)	20.4	6.93	248	0.122	6.7	n/a
	4/3/2017	0.0885(J)	18.6	7.75	246	0.0955	6.3	n/a
	4/25/2017	0.112(J)	16.7	7.35	217	0.101(J)	6.2	n/a
	5/16/2017	0.092(J)	17.5	6.98	228	0.129	6.3	n/a
	6/5/2017	0.142(J)	28.3	7.19	278	0.101	6.6	n/a
	6/27/2017	0.102(J)	23.3	7	1170	0.119	6.3	n/a
	7/18/2017	0.143(BJ)	38	7.02	286	0.104	6.5	n/a
	8/8/2017	0.131(J)	29.5(B)	7.05	283	0.123	6.1	n/a
	8/29/2017	0.128(J)	29.1	6.79	243	0.109	6.6	n/a
	3/26/2018	0.121(J)	28.6	6.94	270	0.0707	6.5	n/a
	8/13/2018	0.0994(J)	38.3	6.42	337	0.0725(J)	6.5	n/a
	9/20/2018	n/a	n/a	n/a	n/a	n/a	4.7	n/a
	3/5/2019	0.111(J)	30.5	5.6	280	0.125	6.2	n/a
	8/28/2019	0.118(J)	43.9	6.15	316	0.0962	6.6	n/a
	11/19/2019	n/a	n/a	n/a	n/a	n/a	6.8	n/a
	3/26/2020	0.0621(J)	26.9	6.25	263	0.125	6.41	41
	12/9/2020	0.18(J)	56.8	6.28	384	<0.15*	6.93	80.6
	8/19/2021	0.184(J)	55.3	5.82	399	0.117(J)	7.09	85.3
	12/2/2021	<0.02	56.3	5.03	378	<0.064	7.44	75.6
	06/15/2022	<0.200	50.8	7.38	354	<0.150	7.75	77.4
	12/06/2022	0.206	54.3	6.3	397	<0.150	7.15	89.9
	06/08/2023	<0.200	48	5.99	349	<0.150	1.55	74
	11/17/2023	<0.200	56.9	5.85	297	<0.150	7.06	80.1
	05/20/2024	<0.200	45.3	5.66	316	<0.150	6.88	64.4
	11/22/2024	<0.200	56.3	6.39	382	<0.150	6.88	85.7
MW-101S	10/20/2015	0.06(J)	17.5	9.62	220(B)	0.0521(J)	6.1	49
	1/25/2016	0.0717(J)	33.8	8.63	421	0.0929(J)	11	70.4
	4/12/2016	0.0781(J)	98.5	7.11	301	0.0474(J)	9.4	56
	7/11/2016	0.0792(BJ)	23.8	7.57	335(B)	0.0272(J)	6.2	51.3
	10/3/2016	0.0668(J)	15.7	7.43	195(B)	0.0255(J)	5.6	50.2
	1/20/2017	0.0872(J)	17.5	7.72	232(B)	0.0471(J)	6	54.7
	4/3/2017	0.0671(J)	46.1	7.28	399	0.0473(J)	6.8	49.7
	6/5/2017	0.0794(J)	34.3	7.66	289	0.0592(J)	6.4	49.2
	8/29/2017	0.0811(J)	14	7.21	197	<0.1	5.8	51
	3/26/2018	0.093(J)	46.1	6.24	312	0.0453(J)	6.9	43.5
	8/13/2018	0.0487(J)	14.1	7.06	217	<0.1	5.9	46.9
	3/5/2019	0.0819(J)	36.2	6.34	278	0.0798(J)	6.4	44.2
	8/29/2019	0.0362(J)	14.5	7.81	213	0.0296(J)	5.9	51.6
	3/26/2020	0.0433(J)	36.3	7.45	261	0.105	6.09	44.4

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	12/9/2020	0.0238(J)	14.8	7.52	200	<0.15*	5.69	48.7
	8/19/2021	0.0329(J)	15(O1)	7.53	228	0.077(J)	5.98	49.4
	12/1/2021	<0.02	14.3	7.29	207	<0.064	6.76	49
	06/15/2022	<0.200	21.8	8.52	234	<0.150	5.98	52.5
	12/07/2022	<0.200	15.9	7.65	217	<0.150	5.51	51.3
	06/08/2023	<0.200	15.4	7.5	208	<0.150	4.67	49.1
	11/17/2023	<0.200	15	7.38	194	<0.150	6.04	47.7
	05/20/2024	<0.200	17.7	7.06	206	<0.150	5.82	47.1
	11/20/2024	<0.200	15.4	7.02	204	<0.150	5.82	50.8
MW-102D	10/20/2015	0.227	72.8	11.6	451(B)	0.114	7.6	122
	1/25/2016	0.281	95.8	13.5	583	0.079(J)	8.7	168
	4/12/2016	0.302	98.9	13.2	598	0.059(J)	6.9	177
	7/11/2016	0.303(B)	97.7	19.5	610(B)	0.122	7.3	172
	10/3/2016	0.31	98.6	13	592(B)	0.0553(J)	6.8	170
	1/20/2017	0.332	94.6	12.4	625(B)	0.0672(J)	7.3	145
	4/3/2017	0.29	101	12	592	0.0671(J)	7.2	145
	6/5/2017	0.306	96.5	11.9	660	0.0777(J)	7.3	139
	8/29/2017	0.323	100	11.5	540	0.0936(J)	7.2	26.9
	3/26/2018	0.32	93.3	11.1	550	0.0472(J)	7.2	114
	8/13/2018	0.282	87.6	11	535	0.0349(J)	6.1	110
	3/5/2019	0.314	81	9.48	506	0.102	7	79.7
	8/28/2019	0.265	77.3	10.1	338	0.0864(J)	7.1	71.1
	3/26/2020	n/a	n/a	n/a	n/a	n/a	6.41	n/a
	4/1/2020	0.177	n/a	6.08	354	n/a	n/a	78.9
	4/6/2020	n/a	55.3	n/a	n/a	0.117(J)	n/a	n/a
	12/10/2020	0.28	76.1	8.52	445	0.102(J)	7.15	39.3
	8/19/2021	0.275	1	8.55	456	0.106(J)	n/a	47.2
	12/2/2021	0.27	73.8	8.25	456	<0.064	7.49	43.8
	06/14/2022	0.274	69.2	8.54	406	<0.150	8.17	33.8
	12/07/2022	0.26	127	n/a	428	<15.0	6.8	<500
	06/08/2023	0.277	66.9	8.28	487	<0.150	3.68	29.1
	11/17/2023	0.275	67.2	8.22	445	<0.150	7.47	25.7
	05/20/2024	0.301	65.7	7.64	386	<0.150	7.28	23.9
	11/19/2024	0.269	76.6	7.47	556	<0.150	7.28	25.3
MW-102S	10/20/2015	0.0699(J)	9.72	8.56	190(B)	0.135	6	25.4
	1/25/2016	0.0671(J)	10.9	7.51	196	0.0913(J)	7.7	21.9
	4/12/2016	0.0675(J)	9.09	6.85	181	0.071(J)	5.5	18.1
	7/11/2016	0.0688(BJ)	7.15	6.92	182(B)	0.0695(J)	6.2	19.1
	10/3/2016	0.0659(J)	8.18	7.79	149(B)	0.067(J)	5.9	21.9

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	1/20/2017	0.0795(J)	7.61	7.27	193(B)	0.0797(J)	5.8	19.8
	4/3/2017	0.054(J)	8.44	7.48	154	0.0391(J)	5.7	19.5
	6/5/2017	0.083(J)	8.06	7.14	192	0.0847(J)	5.9	19
	8/29/2017	0.0638(J)	8.12	6.91	173	0.0957(J)	5.9	20.1
	3/26/2018	0.0668(J)	8.68	7.1	179	0.0514(J)	5.7	18.7
	8/13/2018	0.0387(J)	9.01	7.36	194	0.037(J)	5.4	18.7
	3/6/2019	0.0721(J)	8.63	6.56	169	0.102	5	17.9
	8/28/2019	0.021(J)	8.05	7.32	142	0.0941(J)	5.6	21.2
	3/26/2020	0.0383(J)	9.06	7.25	172	0.0968(J)	5.6	19.5
	3/27/2020	0.0305(J)	8.74	6.55	173	0.117	6.44(T8)	16.6
	12/7/2020	0.026(J)	10.1	6.35	223	0.0768(J)	5.75	16.9
	8/19/2021	0.0315(J)	9.65	7.07	184	0.103(J)	n/a	20.3
	12/1/2021	<0.02	12.6	7.19	193	<0.064	6.55	24.2
	06/14/2022	<0.200	10.3	7	183	<0.150	6.06	19.1
	12/06/2022	<0.200	16.2	8.08	3860	<0.150	5.94	27.6
	06/08/2023	<0.200	12.5	7.54	198	<0.150	4.28	23.1
	11/16/2023	<0.200	14.4	7.75	204	0.663	6.02	25.2
	05/20/2024	<0.200	11.3	6.53	164	<0.150	5.73	19.7
	11/20/2024	<0.200	15.6	7.19	195	<0.150	5.73	27.5
MW-103D	10/21/2015	0.162(J)	46.3	19.9	321(B)	0.257	11	145
	1/25/2016	0.154(J)	79.9	21.9	408	0.247	12.2	156
	4/12/2016	0.192(J)	259	13.8	720	0.28	11.8	75.9
	7/11/2016	0.146(BJ)	256	9.22	775(B)	0.288	11.8	43
	10/3/2016	0.193(J)	140	13.5	396(B)	0.329	11.4	76
	1/20/2017	0.241	38.5	17.1	306(B)	0.413	10.9	113
	4/3/2017	0.203	50.6	17.7	325	0.286	8.8	125
	6/6/2017	0.234	38.6	18.1	325	0.282	9.2	125
	8/29/2017	0.213	32	17.9	312	0.254	8.6	25.9
	3/26/2018	0.23	42.2	17.5	367	0.232	8.3	135
	8/14/2018	0.205	41.4	16.5	376	0.188	7.3	122
	3/6/2019	0.261	37.2	14.5	380	0.247	7.8	115
	8/28/2019	0.214	41.1	13.5	387	0.22	7.8	115
	3/27/2020	n/a	n/a	n/a	n/a	n/a	7.63	n/a
	4/2/2020	0.24	40.5	12	388	0.17	n/a	94.4
	12/10/2020	0.247	48	9.63	399	0.198	7.58	86.4
	8/19/2021	0.24	46.5	8.49	441	0.199	n/a	87.5
	12/1/2021	0.271	50.2	7.99	423	0.184	7.68	76.5
	06/13/2022	0.268	50.4	9.17	407	0.165	8.3	76.7
	12/08/2022	0.276	52.5	7.89	398	0.194	7.43	71.6
	06/07/2023	0.286	54.3	7.29	422	0.166	5.13	71.6
	11/15/2023	0.274	55.6	6.75	437	0.203	7.90	63.7

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	05/22/2024	0.312	56.1	6.67	435	<0.150	7.57	64.3
	11/18/2024	0.218	42.9	6.17	435	0.217	7.57	98.3
MW-103S	11/2/2015	0.109(J)	7.36	4.99	282(B)	0.0527(J)	4.5	91.3
	1/25/2016	0.0435(J)	8.2	6.74	271	0.0605(J)	6.4	91.4
	4/14/2016	0.183(J)	0.956(J)	0.731(J)	224(B)	<0.1	5.2	11
	7/11/2016	0.102(BJ)	2.68	5.65	206(B)	0.0347(J)	4.8	75.2
	1/24/2017	0.0878(J)	4.25	6.09	115(B)	0.0536(J)	4.7	91.9
	4/3/2017	0.115(J)	4.53	5.11	231	0.0699(J)	4.7	90
	6/6/2017	0.174(J)	0.879(J)	5.74	162	0.0544(J)	5.1	47.4
	7/18/2017	0.0891(BJ)	2.57(B)	n/a	n/a	n/a	4.7	n/a
	8/30/2017	0.0904(J)	3.77	5.5	219	0.0367(J)	4.3	85.3
	3/27/2018	0.215	0.755(J)	3.93	109	0.0439(J)	5	33.6
	8/15/2018	0.145(J)	4.93	5.24	272	0.073	4.2	74.4
	3/6/2019	0.241	1.83	3.45	141	0.0943(J)	5.5	36.2
	8/28/2019	0.142(J)	1.52	5.43	202	0.0393(J)	5.2	68.5
	3/26/2020	0.186(J)	10.3	3.14	134	0.119	5.58	31.9
	12/1/2020	n/a	n/a	n/a	n/a	n/a	5.17	n/a
	12/2/2020	0.123(J)	3.99	4.82	229	0.0696(J)	5.36(T8)	68.3
	8/19/2021	0.152(J)	3.26	3.39(B)	127	0.0857(J)	n/a	27.6
	12/1/2021	<0.02	4.9	4.18(B)	187	<0.064	5.4	70.4
	06/13/2022	<0.200	3.96	4.62	122	<0.150	4.31	39.5
	12/06/2022	0.282	5.41	5.14	980	<0.150	4.73	79.4
	06/07/2023	<0.200	4.57	4.07	117	<0.150	4.56	37
	11/15/2023							
	05/22/2024	0.218	5.99	7.94	212	<0.150	5.02	50.7
	11/22/2024	0.608	10.7	7.59	221	<0.750	5.02	92.3
		n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-104D	10/20/2015	0.155(J)	21.1	7.2	136(B)	0.087(J)	7.5	15.1
	1/25/2016	0.21	31.2	8.41	203	0.0868(J)	8.4	15.9
	4/13/2016	0.233	38.6	8.86	232	0.0834(J)	7.1	16.1
	7/11/2016	0.244(B)	40.1	8.82	260(B)	0.0514(J)	7.5	12.8
	10/3/2016	0.255	44	9.92	298(B)	0.0471(J)	7	19.8
	1/20/2017	0.265	44	9.71	270(B)	0.0633(J)	7.5	18.1
	4/3/2017	0.177(J)	36.3	9.06	207	0.0334(J)	7.1	1.42(J)
	6/6/2017	0.271	48.3	9.94	287	0.0717(J)	7.5	19
	8/29/2017	0.26	48.3	9.26	270	0.0845(J)	7.2	14.8
	3/26/2018	0.276	51.2	9.87	304	0.0928(J)	7.3	19.3
	8/13/2018	0.244	52	9.86	304	0.026(J)	6.8	18.2
	3/6/2019	0.255	50.6	9.9	305	0.0658(J)	7.2	19.3
	8/28/2019	0.216	52.7	10.3	320	0.0562(J)	7.5	21.1
	3/27/2020	n/a	n/a	n/a	n/a	n/a	7.2	n/a

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	4/6/2020	0.219	50	10.1	310	0.0736(J)	n/a	18.1
	12/11/2020	0.223	55.7	9.43	319	0.099(J)	7.17	14
	8/19/2021	0.231	53.1	9.62	327	0.101(J)	n/a	10.4
	12/2/2021	0.235	55	9.79	324	<0.064	7.7	17.3
	06/15/2022	0.28	53.1	8.95	319	<0.150	6.97	29.7
	12/05/2022	0.277	52.1	7.46	331	<0.150	7.62	25.9
	06/07/2023	0.245	55.4	9.3	321	<0.150	6.19	20.1
	11/14/2023	0.241	52.6	9.25	333	0.202	7.61	17.5
	05/21/2024	0.26	56.7	10.1	334	<0.150	7.33	16.2
	11/19/2024	0.235	58.3	8.82	330	<0.150	7.33	23.1
MW-104S	10/20/2015	0.843	17.6	5.78	272(B)	0.0778	5.2	90.4
	1/25/2016	0.916	17	3.86	274	0.0293	5.9	88.2
	4/12/2016	0.936	17.4	4.27	286	0.0282	n/a	114
	7/12/2016	0.929(B)	16.4	4.41	320(B)	0.0266	8	87.1
	10/3/2016	0.966	19.8	4.37	301(B)	0.0393	5.3	90.1
	1/23/2017	1	18.2	4.17	333(B)	0.0672	5.4	84.4
	4/5/2017	0.822	19.8	4.32	353	0.0988	5.5	82.5
	6/7/2017	0.802	22.2	4.71	348	0.0885	5.6	86.1
	8/30/2017	0.839	28.1	3.69	338	<0.1	5.7	88.7
	3/27/2018	0.803	30.6	4.04	309	0.124	5.6	84.1
	8/15/2018	0.659	28.4	4.08	305	0.0337	4.9	81.5
	3/7/2019	0.795	26.8	3.92	278	0.0545	5.2	82.6
	8/29/2019	0.662	25.7	4.22	227	0.0398	5.4	86.7
	3/26/2020	0.853	20.7	3.95	269	0.0874(J)	5.14	74.6
	12/2/2020	0.727	20.3	3.86	250	<0.15*	5.3	76.2
	8/19/2021	0.828	17.7	4.17(B)	265	0.0716(J)	n/a	76.4
	12/2/2021	0.723	20.5	4.01(B)	259	<0.064	5.56	83.6
	06/13/2022	0.863	15.5	4.92	248	<0.150	4.82	71.7
	12/08/2022	0.837	15.6	4.34	248	<0.150	4.9	79.6
	06/07/2023	0.782	16.3	4.58	233	<0.150	5	73.9
	11/14/2023	0.834	14.4	4.39	253	0.17	5.50	65.7
	05/21/2024	0.911	19	4.05	232	<0.150	5.19	64.5
	11/19/2024	0.743	15.9	3.95	228	<0.150	5.19	71.1
MW-105D	10/20/2015	0.211	27.2	6.92	206(B)	0.125	7.7	18.2
	1/25/2016	0.259	35.2	7.51	233	0.123	9.8	15.9
	4/12/2016	0.145(J)	21.9	6.58	229	0.0882(J)	6.6	10.7
	7/11/2016	0.275	40.5	7.39	256(B)	0.0739(J)	9.1	16.4
	10/3/2016	0.284	45.7	8.28	279(B)	0.072(J)	7.6	24
	1/20/2017	0.308	46.8	7.39	299(B)	<0.1	7.6	26.7
	4/4/2017	0.254	48.8	7.28	285	0.0473(J)	7.4	49.7

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	6/6/2017	0.312	52.3	8.56	317	0.0856(J)	7.6	33.9
	8/29/2017	0.284	50.1	8.19	303	0.0982(J)	7.4	35
	3/26/2018	0.312	53.9	8.41	345	0.0982(J)	7.5	39.8
	8/13/2018	0.273	51.6	8.82	355	0.0208(J)	7.1	34.4
	3/6/2019	0.313	53.1	8.52	329	0.0793(J)	7.5	30.6
	8/28/2019	0.254	54.8	8.85	331	0.0772(J)	7.6	33.9
	3/27/2020	n/a	n/a	n/a	n/a	n/a	7.14	n/a
	4/6/2020	0.279	55.6	8.34	334	0.0752(J)	n/a	29
	12/9/2020	0.27	58.1	8.81	368	0.0805(J)	7.45	31.4
	8/19/2021	0.153(J)	33.2	6.71	237	0.104(J)	n/a	4.56(J)
	12/3/2021	0.267	58	8.36	348	<0.064	7.67	29.3
	06/14/2022	0.284	56.8	8.36	343	<0.150	8.61	28.7
	12/08/2022	0.28	57.2	8.99	353	<0.150	7.78	29.5
	06/06/2023	0.284	54.4	8.28	331	<0.150	5.11	26.3
	11/14/2023	0.273	53.7	8.94	332	0.31	7.71	27
	05/21/2024	0.293	59	8.17	339	<0.150	7.62	26.6
	11/19/2024	0.271	56.3	7.86	335	<0.150	7.62	29.8
MW-105S	10/20/2015	0.0822(J)	40.4	10.2	308(B)	0.104	6.1	57.6
	1/25/2016	0.227	109	9.85	382	0.319	n/a	53.3
	4/12/2016	0.112(J)	85.4	4.8	339	0.0994(J)	6.8	33.9
	7/12/2016	0.102(J)	56.3	4.42	333(B)	0.0606(J)	7	29.7
	10/4/2016	0.0809(J)	44.3	5.38	293(B)	0.0373(J)	6.1	30.8
	1/23/2017	0.157(J)	39.3	5.76	285(B)	0.1	6.9	45.4
	4/5/2017	0.208	33.1	8.95	330	0.213	10.9	70.7
	6/6/2017	0.123(J)	36.9	4.82	277	0.0926(J)	7.7	35.8
	8/30/2017	0.083(J)	33.1	4	236	<0.1	6	28.2
	3/28/2018	0.078(J)	19.7	3.76	199	0.0372(J)	6	26.3
	8/14/2018	0.0758(J)	17.5	5.2	242	0.0349(J)	5.4	29.8
	3/7/2019	0.734	36.3	10.2	447	0.214	6.1	97.1
	8/29/2019	0.701	49.8	10.5	399	0.0992(J)	6.3	114
	3/26/2020	0.263	24.9	4.99	238	0.107	5.98	44.5
	12/2/2020	0.0737(J)	22.2	4.18	228	0.0774(J)	6.24	33.6
	8/19/2021	0.0589(J)	15.1	4.44(B)	208	0.0935(J)	n/a	27.4
	12/3/2021	<0.02	17.5	5.04	205	<0.064	5.74	32.1
	06/14/2022	<0.200	14.6	3.95	179	<0.150	5.97	23.2
	12/06/2022	<0.200	15.3	5.25	97	<0.150	5.57	32
	06/07/2023	<0.200	13.7	4.07	173	<0.150	5.77	21.5
	11/14/2023	<0.200	16.3	4.83	207	0.171	6.02	28.3
	05/21/2024	<0.200	17.7	3.73	179	<0.150	6.07	21.6
	11/19/2024	<0.200	17.9	4.9	199	<0.150	6.1	33.4

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MW-106D	10/21/2015	0.321	41.6	6.09	298(B)	0.079(J)	7.5	35
	1/25/2016	0.301	37.6	8.55	332	0.0919(J)	10.2	48.1
	4/12/2016	0.358	48.4	7.38	334	0.0869(J)	6.9	41.6
	7/11/2016	0.349	47.8	6.67	334(B)	0.06(J)	8.8	31.9
	10/3/2016	0.335	45.4	8.56	352(B)	0.064(J)	7.2	32.9
	1/20/2017	0.382	48.9	6.03	341(B)	<0.1	7.5	25.3
	4/3/2017	0.313	52.8	6.68	321	0.0675(J)	7.1	22.6
	6/6/2017	0.354	51.7	6.52	338	0.0824(J)	8.4	20.2
	8/29/2017	0.335	52.2	5.21	324	<0.1	7.4	19.4
	3/26/2018	0.366	52.7	5.62	318	0.101	7.3	19
	8/14/2018	0.313	51.6	5.6	329	0.0405(J)	6.9	19.4
	3/6/2019	0.333	51	5.48	329	0.0599(J)	7.4	18.9
	8/28/2019	0.293	53.2	5.67	345	0.0714(J)	7.5	22.7
	3/27/2020	n/a	n/a	n/a	n/a	n/a	7.29	n/a
	4/2/2020	0.301	53.2	5.55	343	0.106(J)	n/a	19.4
	12/12/2020	0.296	55.2	5.44	352	0.077(J)	7.46	13.3
	8/19/2021	0.296	52.1	4.85(B)	351	0.114(J)	n/a	13.1
	12/3/2021	0.307	56.4	5.85	356	<0.064	7.46	14.2
	06/14/2022	0.305	57.9	6.06	531	<0.150	8.49	13.2
	12/08/2022	0.304	56.7	5.92	329	<0.150	7.21	12.5
	06/07/2023	0.277	42.9	5.01	210	<0.150	6.75	10.3
	11/17/2023	0.249	37.1	<10.0	185	<1.50	9.99	<50.0
	05/21/2024	0.243	36.9	4.74	184	<0.150	10.82	10.8
	11/20/2024	0.242	28.1	<10.0	184	<1.50	10.82	<50.0
MW-106S	10/21/2015	6.34	16	13.8	693(B)	0.348	4.3	350
	1/25/2016	7.5	16.6	10.5	629	0.344	4.5	385
	4/12/2016	6.93	16.8	8.98	605	0.483	4.6	462
	7/12/2016	6.06(B)	16.3	11.9	589(B)	0.333	5.9	375
	10/4/2016	6.38	16.3	13.8	654(B)	0.429	4.1	430
	1/24/2017	7.14	17.1	12.6	652(B)	0.429	4	434
	4/5/2017	7.19	20.4	9.9	699	0.434	4.3	427
	6/6/2017	7.36	18.9	9.64	691	0.382	4.5	478
	8/30/2017	7.45	17.8	10.2	674	0.336	4.1	368
	3/27/2018	7.07	20.4	11.1	688	0.481	4.2	456
	8/14/2018	6.52	25.5	12.6	738	0.541	3.6	479
	3/7/2019	6.52	24.2	9.57	675	0.449	4	440
	8/29/2019	6.54	31.2	11.8	816	0.626	4	545
	3/25/2020	5.86	31.6	9.01	769	0.519	4.16	497
	12/2/2020	6.61	33.5	10.3	899	0.687	4.02	615
	8/19/2021	6.39	32.5	10.6	980	0.683	4.13	640
	11/30/2021	7.43	40.2	11.1	1090	0.681	3.91	710

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	06/14/2022	5.85	30	11	920	0.661	4.01	633
	12/06/2022	6.39	31.6	13.1	979	0.803	3.83	643
	06/07/2023	7.4	46.8	13.3	1200	0.728	4.02	808
	11/17/2023	6.91	40.5	12.6	1040	0.695	4.00	698
	05/21/2024	7.12	38	12.5	1120	0.901	3.96	752
	11/20/2024	6.84	41.7	11.9	1200	<1.50	4	802
MW-107D	10/21/2015	0.326	58.8	16.9	451(B)	0.0777(J)	7.3	162
	1/25/2016	0.205	16.5	8.85	243	0.074(J)	9.6	59.7
	4/12/2016	0.414	82	19.6	522	0.0733(J)	7.2	190
	7/11/2016	0.313	58.4	15.8	415(B)	0.0554(J)	8.6	109
	10/3/2016	0.389	83.8	19.5	521(B)	0.0636(J)	6.9	158
	1/20/2017	0.411	78.1	19	529(B)	<0.1	7.3	135
	4/3/2017	0.356	87.1	20.1	551	0.0544(J)	7.3	150
	6/6/2017	0.379	80.7	19.5	510	0.0682(J)	8.3	136
	8/29/2017	0.366	81.1	19.2	514	<0.1	7.3	155
	3/26/2018	0.376	85	20.1	536	0.093(J)	7.3	151
	8/13/2018	0.335	81.3	20.2	534	0.0306(J)	7.1	141
	3/6/2019	0.366	79.8	19.8	506	0.069(J)	7.2	136
	8/28/2019	0.32	83.9	20.7	544	0.068(J)	7.5	159
	3/27/2020	n/a	n/a	n/a	n/a	n/a	7.17	n/a
	4/6/2020	0.321	82	17.6	493	0.0789(J)	n/a	115
	12/12/2020	0.32	81.2	20.2	530	0.0681(J)	7.34	113
	8/19/2021	0.275	61.2	16.3	483	0.12(J)	7.41	97.4
	12/3/2021	0.32	83.6	21	542	<0.064	7.28	132
	06/14/2022	0.324	85	20.3	383	<0.150	7.36	128
	12/06/2022	0.315	82.1	21.3	509	<0.150	7.13	129
	06/06/2023	0.329	82.8	20	470	<0.150	1.75	137
	11/16/2023	0.318	79	19.9	534	<0.150	8.01	125
	05/22/2024	0.315	77.9	19	512	<0.150	7.5	118
	11/22/2024	0.332	79.3	21.1	523	<0.150	7.5	128
MW-108D	10/21/2015	0.32	50.7	10.7	388(B)	0.13	7.4	77.2
	1/25/2016	0.349	50.4	9.77	409	0.0875(J)	9.8	71.2
	4/12/2016	0.364	65.8	11.4	449	0.0738(J)	7.3	96.4
	7/11/2016	0.363	67.9	11.2	477(B)	0.0459(J)	9.5	95.3
	10/3/2016	0.347	68.1	11	453(B)	0.0451(J)	6.9	89.7
	1/20/2017	0.394	66.4	10.2	482(B)	<0.1	7.1	87.1
	4/3/2017	0.269	53.5	10.7	379	0.0186(J)	7.3	44.4
	6/5/2017	0.375	77.4	13.3	571	0.0718(J)	7.2	95
	8/29/2017	0.364	82.1	13	506	<0.1	7.2	97.5
	3/26/2018	0.38	93.6	15.4	613	0.0967(J)	7.1	107

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	8/14/2018	0.339	87.1	16.4	607	0.0569(J)	6.9	92.4
	3/5/2019	0.373	84.8	16.1	589	0.0785(J)	7.1	80.3
	8/28/2019	0.324	83.5	16.5	596	0.0721(J)	7.3	76.4
	3/27/2020	0.324	83	15.3	575	0.112	7.17	61.2
	12/4/2020	0.333	81.7	14.2	568	0.093(J)	8.17	95.2
	8/19/2021	0.337	76	13.1	545	0.109(J)	n/a	95.8
	12/1/2021	0.343	72.3	13.4	531	<0.064	7.93	70.9
	06/14/2022	0.339	72.1	13.5	501	<0.150	8.38	58.1
	12/05/2022	0.332	70.5	13.8	523	<0.150	7.63	52.5
	06/07/2023	0.352	68	12.7	469	<0.150	5.01	43.2
	11/16/2023	0.344	64.2	12.6	464	<0.150	7.74	38.6
	05/22/2024	0.336	66.4	12.2	481	<0.150	7.42	35.4
	11/20/2024	0.327	67.8	12	475	<0.150	7.42	34.9
MW-109D	3/13/2017	0.288	46.2	11.3	370	0.11	7.3	84
	4/3/2017	0.299	52	11.1	369	0.074(J)	7.3	87.4
	4/25/2017	0.315	46.1	11.1	390	0.0785(J)	7.2	77.1
	5/16/2017	0.307	47.9	10.6	397	0.13	6.5	78.9
	6/5/2017	0.332	49.4	10.8	383	0.0896(J)	7.3	79.5
	6/27/2017	0.321	46.1	10.5	392(B)	0.0997(BJ)	7	76.5
	7/18/2017	0.34(B)	52.4(B)	10.4	370	0.0876(J)	7.2	77.8
	8/7/2017	0.332	48.8	10.4	353	0.0784(J)	6.5	71.6
	8/28/2017	0.346	51.4	8.7	352	0.0513(J)	7.3	71.8
	3/27/2018	0.348	49.1	9.26	367	0.0867(J)	7.2	68.6
	8/14/2018	0.37	49.7	8.84	384	0.0711(J)	7.1	56.9
	3/5/2019	0.335	48.9	8.2	380	0.0863(J)	7.3	64
	8/28/2019	0.291	49.7	8.1	387	0.0823(J)	7.4	68
	3/27/2020	0.306	51.9	7.28	382	0.119	7.25	62.2
	12/11/2020	0.294	52.3	7.38	375	0.106(J)	7.23	39.9
	6/19/2021	0.313	48.4	6.82	397	0.122(J)	n/a	56.6
	12/1/2021	0.305	49.8	6.62	367	<0.064	8.14	53.5
	06/14/2022	0.312	49.9	6.91	559	<0.150	7.97	49.3
	12/05/2022	0.308	50	6.45	371	<0.150	7.71	49.6
	06/08/2023	0.321	47.4	7.47	372	<0.150	3.84	49.9
	11/16/2023	0.312	47.6	6.02	357	0.188	7.80	43.6
	05/22/2024	0.312	48.5	6.15	361	<0.150	7.43	44.9
	11/21/2024	0.305	50.2	6.04	365	<0.150	7.43	45.9
MW-110D	3/14/2017	0.344	42.9	5.84	301	0.129	7.5	50.7
	4/4/2017	0.298	44.8	6.51	327	0.107	7.6	48.5
	4/25/2017	0.302	40	6.74	332	0.0749(J)	7.6	38.9
	5/16/2017	0.294	42.3	6.38	318	0.11	7.5	34.3

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	6/6/2017	0.33	42.7	6.73	330	0.0972(J)	7.3	34.7
	6/27/2017	0.304	40.2	6.26	351(B)	0.111	7.5	40.7
	7/18/2017	0.317(B)	45.3(B)	6.95	327	0.103	7.5	39.2
	8/8/2017	0.319	42.4	6.96	342	0.112	7.5	40.6
	8/29/2017	0.327	44	6.5	309	0.114	7.3	38.9
	3/26/2018	0.333	42.4	6.65	333	0.113	7.4	31.2
	8/14/2018	0.3	43.1	6.61	322	0.0709(J)	7.2	28.3
	3/6/2019	0.346	42.3	6.75	308	0.0952(J)	7.3	27.2
	8/27/2019	0.288	43.5	6.84	337	0.0895(J)	7.4	27
	3/25/2020	n/a	n/a	n/a	n/a	n/a	7.24	n/a
	4/8/2020	0.286	45.4	6.87	333	0.0806(J)	n/a	27.6
	12/8/2020	0.303	52.6	6.65	352	0.0698(J)	7.93	45.6
	8/19/2021	0.312	46.6	6.33	358	0.103(J)	n/a	42.1
	12/1/2021	0.305	47	6.34	337	<0.064	7.94	41.3
	06/13/2022	0.306	47	7.5	332	<0.150	8.28	40.5
	12/05/2022	0.306	47.7	6.34	354	<0.150	7.71	38.9
	06/06/2023	0.322	44.7	6.63	346	<0.150	6.92	40.3
	11/16/2023	0.312	42.7	6.23	333	<0.150	8.21	38.8
	05/22/2024	0.309	46.4	6.35	352	<0.150	7.63	39.2
	11/18/2024	0.3	47.4	6.26	336	<0.150	7.63	40.4
MW-110S	1/25/2016	0.482	4.56	17.6	297	0.0812(J)	6.4	99.9
	4/12/2016	0.668	4.52	18.3	324	0.129	4.9	166
	7/12/2016	0.65(B)	3.93	13.2	343(B)	0.0519(J)	5.2	121
	10/5/2016	0.591	4.2	12.2	328(B)	0.041(J)	4.4	119
	1/24/2017	0.976	5.02	16	390(B)	0.225	4.8	141
	3/13/2017	1.01	5.15	12.9	375	0.146	4.8	139
	5/16/2017	0.879	3.89	12.1	333	0.156	4.5	140
	7/18/2017	0.88(B)	3.5(B)	12	342	0.119	4.2	174
	8/30/2017	0.92	4.5	9.16	333	<0.1	4.4	146
	3/27/2018	1.13	4.9	11.7	382	0.245	5	170
	8/15/2018	0.794	4.48	6.45	311	0.0304(J)	4	127
	3/6/2019	1.18	45.3	11.9	500	0.275	6.2	162
	8/27/2019	1.2	4.09	9.51	372	0.165	4.9	187
	3/27/2020	1.3	24.2	7.85	412	0.204	5.62	162
	12/2/2020	1.7	9.5	8.47	461	0.312	5.14	229
	8/19/2021	1.83	16.1	8.86	510	0.293	4.32	238
	11/30/2021	1.47	6.16	4.64(B)	337	<0.064	4.55	152
	06/13/2022	2.03	16.7	8.57	466	0.255	5.49	244
	12/06/2022	2.03	5.93	6.57	375	0.167	4.11	194
	06/07/2023	2.24	5.85	5.78	441	0.228	4.16	233
	11/15/2023	1.69	6.03	4.01	355	0.444	4.80	150

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	05/22/2024	2.41	8.88	5.5	475	0.294	4.55	225
	11/18/2024	1.32	5.23	2.88	313	<0.150	4.55	149
MW-111S	1/25/2016	3.43	26.4	6.72	436	0.15	6	219
	4/12/2016	3.54	29.5	6.72	435	0.189	4.8	299
	7/12/2016	3.52	27.3	6.4	474(B)	0.151	4.1	230
	10/3/2016	3.74	25.7	6.36	435(B)	0.158	3.9	247
	1/24/2017	4.04	29.3	4.71	458(B)	0.218	4	282
	3/13/2017	3.81	30.6	4.78	485	0.175	4	238
	5/16/2017	3.64	29.7	5.03	466	0.203	4.1	241
	7/19/2017	3.72	30.7(B)	5.23	470	0.185	4	306
	8/30/2017	3.91	30.2	4.76	496	0.191	4.1	243
	3/27/2018	4.11	37.8	5.04	533	0.254	4.1	317
	8/14/2018	4.03	41	5.38	567	0.288	3.6	326
	3/7/2019	3.64	36.3	4.86	542	0.278	5.2	305
	8/29/2019	4.38	51.1	6.15	697	0.42	4	432
	3/25/2020	4.25	59	5.97	735	0.33	4.42	442
	12/2/2020	4.92	72.5	6.56	915	0.519	3.87	614
	8/19/2021	4.86	83.5	7.64	1030	0.604	4.32	649
	11/30/2021	5.82	110	7.93	1240	0.782	3.76	841
	06/14/2022	5.39	115	10.3	1230	0.748	4.05	804
	12/06/2022	6.26	112	11.3	1270	1.2	3.71	879
	06/07/2023	5.98	118	11.5	1270	0.85	3.98	854
	11/16/2023	6.67	117	12.1	1370	0.869	3.86	827
	05/20/2024	6.45	108	12.3	1270	0.957	4.1	756
	11/22/2024	7.1	101	<100	1280	<15.0	4.1	768
MW-112D	3/14/2017	0.203	9.86	2.68	108	0.136	7.2	9.04
	4/4/2017	0.158(J)	10.2	3.5	102	0.127	6.4	2.16(J)
	4/25/2017	0.177(J)	10.7	3.57	121	0.1	7	2.85(J)
	5/16/2017	0.161(J)	11	3.46	127	0.12	7.4	1.7(J)
	6/6/2017	0.189(J)	12.3	3.86	145	0.118	6.9	1.06(J)
	6/27/2017	0.185(J)	13.7	3.2	148(B)	0.097(J)	7.5	1.23(J)
	7/18/2017	0.19(BJ)	13.8(B)	3.69	137	0.101	7	1.09(J)
	8/8/2017	0.199(J)	16	3.85	147	0.0507(J)	6.5	0.757(J)
	8/29/2017	0.201	17	3.47	154	0.127	7	0.93(J)
	3/26/2018	0.239	24.5	4.12	190	0.113	7.1	0.675(J)
	5/30/2018	0.241(B)	24.4	n/a	202	n/a	7.5	n/a
	8/13/2018	0.275	29.2	4.27	203	0.0747(J)	6.8	<5
	3/6/2019	0.27	28.8	4.48	234	0.0936(J)	7.2	<5
	8/28/2019	0.248	30.8	4.63	227	0.086(J)	7.4	0.379(J)
	3/25/2020	n/a	n/a	n/a	n/a	n/a	7.38	n/a

B: analyte was detected in associated QA/QC sample.

J: analyte was detected below the RDL; value is an estimate.

O: value is a statistical outlier.

R: value was rejected due to suspected error; not used in statistics.

	4/7/2020	0.246	32	4.85	243	0.079(J)	n/a	<0.594
	12/15/2020	0.261	35.4	4.39	226	0.0836(J)	6.83	4.57(J)
	8/19/2021	0.278	34.4	4.69(B)	292	0.117(J)	7.48	2.3(J)
	12/1/2021	0.27	35.4	5.14	275	<0.064	8.27	<0.594
	06/15/2022	0.278	37	6.49	270	<0.150	8.15	<5.00
	12/07/2022	0.278	39.3	5.8	302	<0.150	7.15	<5.00
	06/06/2023	0.287	39.5	6.05	308	<0.150	5.65	<5.00
	11/17/2023	0.286	41.1	<10.0	295	<1.50	7.57	<50.0
	05/23/2024	0.288	42.4	6.19	327	<0.150	7.48	<5.00
	11/22/2024	0.294	41.4	7.22	317	<0.150	7.49	5.08
MW-113D	3/14/2017	0.504	197	13.2	1150	<0.1	6.8	610
	4/4/2017	0.461	178	13.2	1080	0.0527(J)	6.9	587
	4/25/2017	0.481	182	13.4	1140	<0.1	7	562
	5/16/2017	0.448	161	13.2	1100	0.0863(J)	6.8	608
	6/6/2017	0.463	148	13.5	1130	0.0512(J)	6.8	615
	6/27/2017	0.497	191	13.4	1130	0.0676(J)	6.7	694
	7/18/2017	0.441(B)	100(B)	13.7	1060	0.0507(J)	6.9	607
	8/8/2017	0.482	183	13.3	974	<0.1	6.8	589
	8/29/2017	0.494	179	13.3	1180	<0.1	6.9	601
	3/26/2018	0.534	180	13.4	1050	<0.1	6.6	628
	8/14/2018	0.471	172	13.3	1060	0.0226(J)	6.5	607
	3/6/2019	0.54	179	13.8	1160	0.0392(J)	6.8	659
	8/27/2019	0.469	194	14.6	1210	0.0281(J)	6.8	706
	3/25/2020	n/a	n/a	n/a	n/a	n/a	6.61	n/a
	4/7/2020	0.483	215	14.7	2450	<0.064	n/a	655
	12/11/2020	0.488	212	13.7	1250	0.0738(J)	6.77	680
	3/2/2021	n/a	n/a	14.1	n/a	n/a	n/a	n/a
	6/19/2021	0.488	200	13.8	1230	0.0734(J)	n/a	672
	11/30/2021	0.482	197	14.2	1210	<0.064	6.85	637
	06/14/2022	0.484	198	14.4	1170	<0.150	6.97	609
	12/06/2022	0.479	200	14.1	1190	<0.150	6.76	528
	06/08/2023	0.503	184	14.1	1160	<0.150	6.47	653
	11/15/2023	0.492	189	14.7	1150	<0.150	7.30	590
	05/23/2024	0.491	207	13.6	1090	<0.150	7.05	608
	11/21/2024	0.483	202	11.9	1170	<1.50	7.05	640
MW-114D	3/14/2017	0.337	43.5	6.89	300	<0.1	7.5	32.8
	4/4/2017	0.284	42.5	7.53	273	0.0761(J)	7.5	29.4
	4/26/2017	0.272	39.7	7.91	277	0.0597(J)	7.3	26.3
	5/16/2017	0.264	42.5	7.73	280	0.0923(J)	7.6	21.7
	6/6/2017	0.26	43.3	8.15	270	0.0493(J)	7.2	22.2

B: analyte was detected in associated QA/QC sample.

J: analyte was detected below the RDL; value is an estimate.

O: value is a statistical outlier.

R: value was rejected due to suspected error; not used in statistics.

	6/27/2017	0.263	40.5	8.97	282(B)	0.061(J)	7.6	23
	7/18/2017	0.276(B)	45.3(B)	8.16	268	0.0836(J)	7.3	14.3
	8/8/2017	0.275	44.6	7.93	284	0.094(J)	7.2	15.8
	8/29/2017	0.286	40.9	7.48	272	<0.1	7.4	21.8
	3/26/2018	0.264	42	7.76	278	0.1	7.4	12.8
	8/14/2018	0.231	46.6	7.79	282	0.0572(J)	6.5	9.17
	3/6/2019	0.274	44.8	8.02	282	0.0762(J)	7.5	11.8
	8/28/2019	0.248	50.1	7.71	278	0.109	7.5	8.81
	3/25/2020	n/a	n/a	n/a	n/a	n/a	7.43	n/a
	4/6/2020	0.256	48.4	8.32	278	0.0858(J)	n/a	17.4
	12/4/2020	0.283	56.8	7.87	361	<0.15*	7.97	36.2
	6/19/2021	0.284	51.7	7.49	353	0.0931(J)	7.45	37
	12/2/2021	0.276	53.4	7.71	331	<0.064	8	28.9
	06/15/2022	0.28	53.1	8.95	319	<0.150	8.7	29.7
	12/05/2022	0.277	52.1	7.46	331	<0.150	7.81	25.9
	06/08/2023	0.275	51.7	7.42	326	<0.150	7.11	29.6
	11/15/2023	0.278	50.4	7.25	315	<0.150	7.82	25.1
	05/23/2024	0.275	54.5	8.23	332	<0.150	7.43	35.5
	11/21/2024	0.27	54.5	7.17	321	<0.150	7.43	27.7
MW-115D	3/14/2017	0.337	38.1	5.86	339	0.154	7.4	71.8
	4/4/2017	0.303	36.2	5.84	365	0.18	7.5	57.6
	4/25/2017	0.304	35	6.08	372	0.152	7.6	45.5
	5/16/2017	0.305	35.9	5.5	362	0.194	7.6	30.7
	6/6/2017	0.318	34.7	6.1	363	0.139	7.5	24.8
	6/27/2017	0.311	35.6	5.37	377(B)	0.187	7.7	10.7
	7/18/2017	0.318(B)	39.5(B)	5.87	362	0.17	7.4	8.28
	8/8/2017	0.325	39.8	5.86	389	0.179	7.5	7.92
	8/29/2017	0.344	39	5.57	377	0.158	7.2	6.25
	3/27/2018	0.346	46.9	5.45	374	0.172	7.3	1.31(J)
	8/14/2018	0.272	45.4	5.15	368	0.113	6.4	1.76(J)
	3/5/2019	0.35	46.1	5.15	371	0.126	7.2	2.12(J)
	8/28/2019	0.294	48.2	4.84	362	0.144	7.4	2.98(J)
	3/25/2020	0.341	48.3	5.03	361	0.122	7.37	3.08(J)
	12/15/2020	0.334	47.5	4.56	355	0.115(J)	6.88	3.43(J)
	6/19/2021	0.336	44.3	4.65	367	0.131(J)	7.45	2.75(J)
	12/1/2021	0.338	45.6	4.53	343	<0.064	8.26	<0.594
	06/14/2022	0.336	43.6	4.95	342	<0.150	8.62	<5.00
	12/05/2022	0.327	43.9	4.44	351	<0.150	7.78	5.25
	06/08/2023	0.346	43.5	4.63	342	<0.150	7.26	<5.00
	11/16/2023	0.335	40.8	4.25	325	<0.150	7.86	<5.00
	05/23/2024	0.339	42.7	5	352	<0.150	7.57	5.44

B: analyte was detected in associated QA/QC sample.

J: analyte was detected below the RDL; value is an estimate.

O: value is a statistical outlier.

R: value was rejected due to suspected error; not used in statistics.

	11/21/2024	0.329	44.8	4.2	333	<0.150	7.57	<5.00
MW-118D	3/13/2017	0.343	68.4	8.39	415	<0.1	7	82.2
	4/3/2017	0.316	76.8	9.42	433	0.0541(J)	7.2	106
	4/25/2017	0.328	77.1	9.43	459	<0.1	7	111
	5/16/2017	0.335	73.1	9.78	463	0.0404(J)	7.2	117
	6/6/2017	0.333	75.3	9.4	455	0.0488(J)	7.4	122
	6/27/2017	0.323	69.3	8.92	423(B)	<0.1	6.7	44.9
	7/18/2017	0.0391(BJ)	0.0571(BJ)	9.36	431	0.0445(J)	7	110
	8/8/2017	0.344	74.8	9.59	484	0.0689(J)	6.9	118
	8/29/2017	0.355	79	9.32	439	0.0162(J)	7.3	107
	3/26/2018	0.327	79.3	9.11	456	<0.1	7.2	126
	8/14/2018	0.337	74.1	9.11	459	0.0296(J)	6.8	109
	3/6/2019	0.335	76.5	9.33	454	0.0434(J)	7	112
	8/28/2019	0.274	78.6	9.01	438	0.0853(J)	7.1	118
	4/6/2020	n/a	n/a	n/a	n/a	n/a	6.75	n/a
	4/8/2020	0.301	80.6	9.48	448	<0.064	n/a	129
	12/9/2020	0.285	83.2	9.61	572	0.128(J)	6.77	166
	6/19/2021	0.218	76.4	7.62	597	0.305	6.96	157
	12/2/2021	0.292	103	8.41	642	0.156	7.38	222
	06/15/2022	0.285	91.2	9.45	585	<0.150	7.77	168
	12/05/2022	0.277	88.6	8.27	557	<0.150	7.23	162
	06/06/2023	0.276	90.6	8.27	566	<0.150	5.4	162
	11/17/2023	0.291	91	8.23	504	<0.150	7.18	151
	05/23/2024	0.274	89	9.1	535	<0.150	6.75	156
	11/21/2024	0.274	86	8.17	502	<0.150	6.95	141

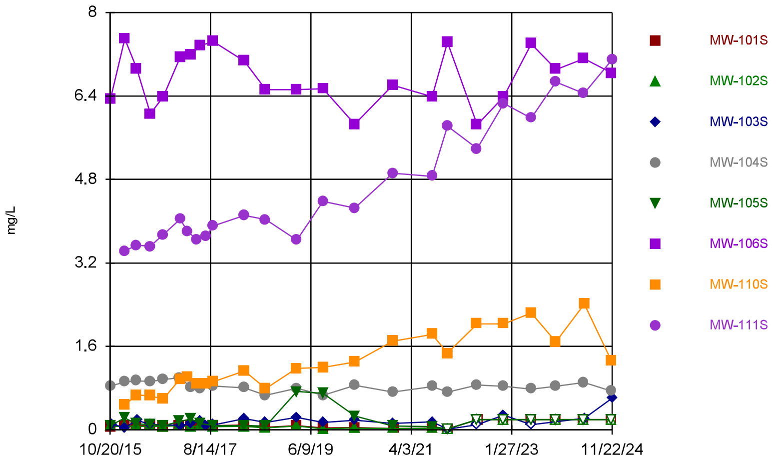
B: analyte was detected in associated QA/QC sample.
J: analyte was detected below the RDL; value is an estimate.
O: value is a statistical outlier.
R: value was rejected due to suspected error; not used in statistics.

APPENDIX 2

Time Series

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

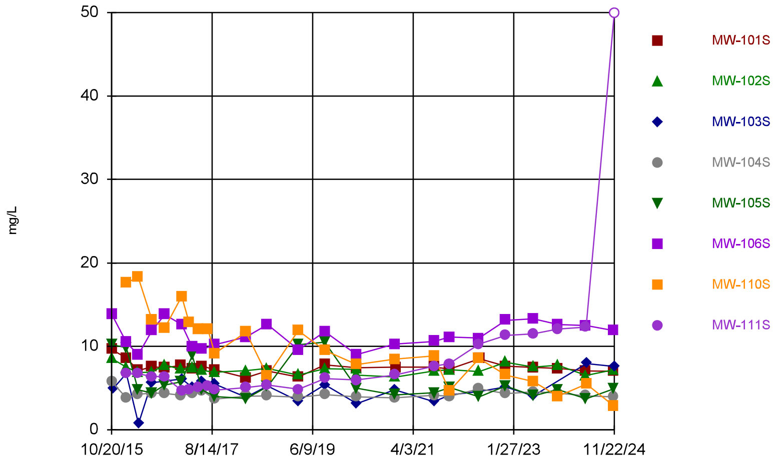
Time Series



Constituent: Boron Analysis Run 3/26/2025 4:28 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

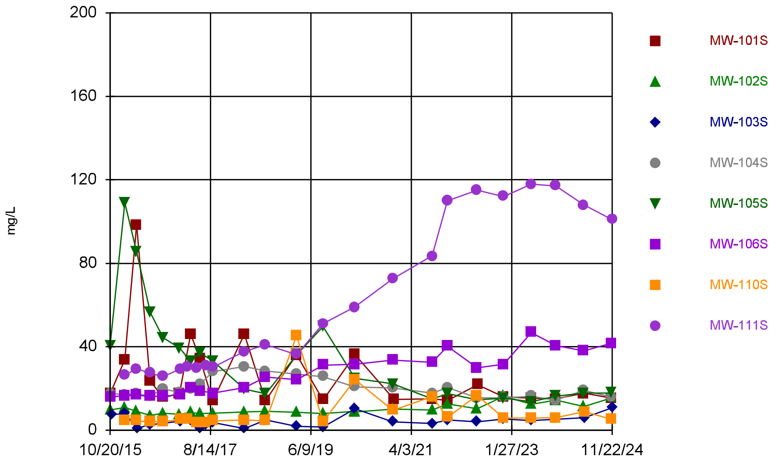
Time Series



Constituent: Chloride Analysis Run 3/26/2025 4:28 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG

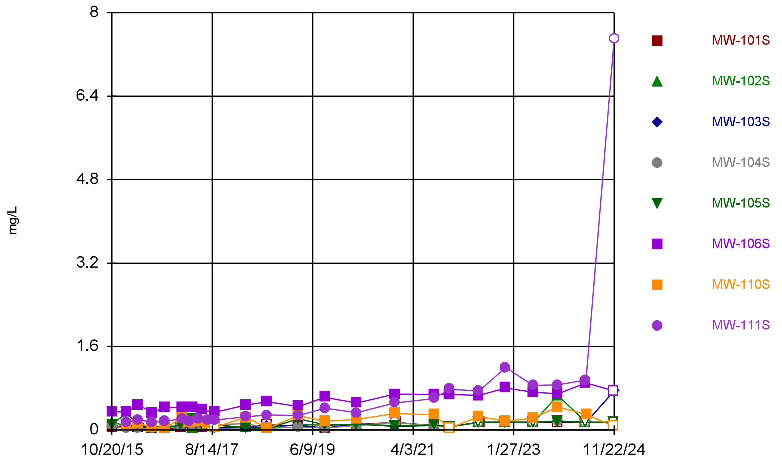
Time Series



Constituent: Calcium Analysis Run 3/26/2025 4:28 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 3/26/2025 4:28 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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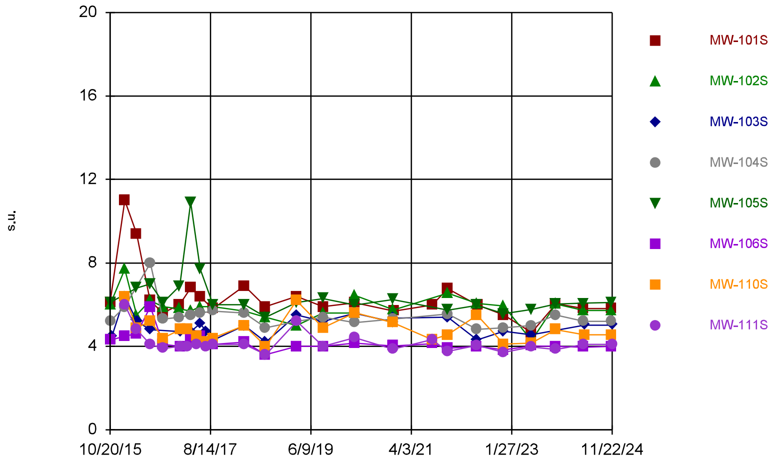
Time Series

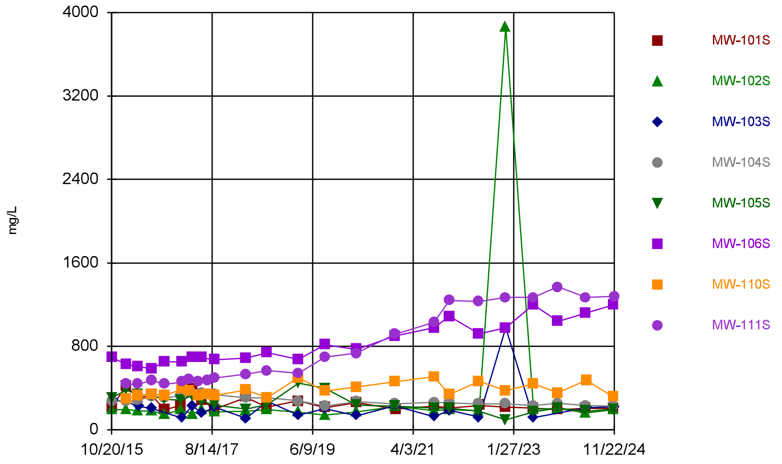


Constituent: pH Analysis Run 3/26/2025 4:28 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG

Time Series

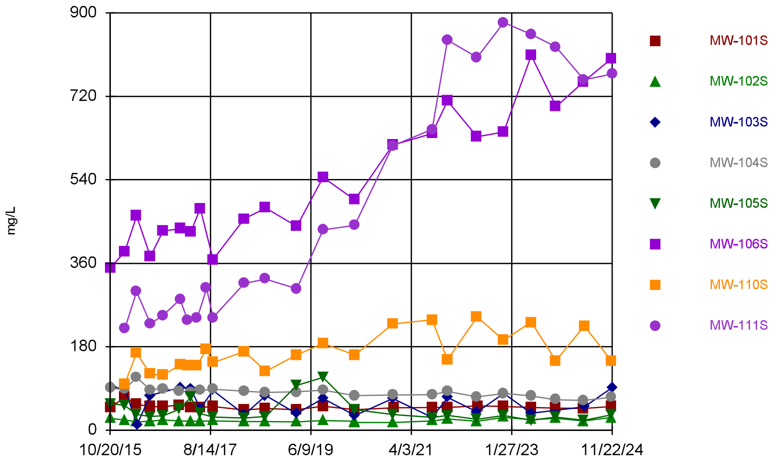


Constituent: TDS Analysis Run 3/26/2025 4:28 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG

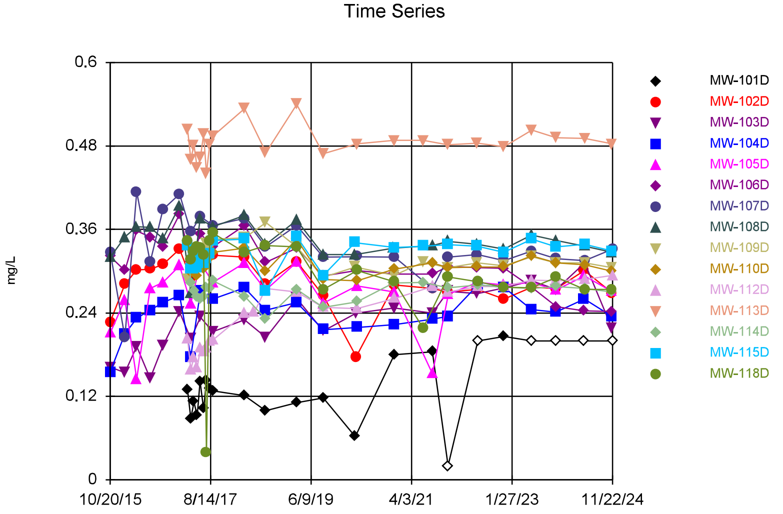
Time Series



Constituent: Sulfate Analysis Run 3/26/2025 4:28 PM

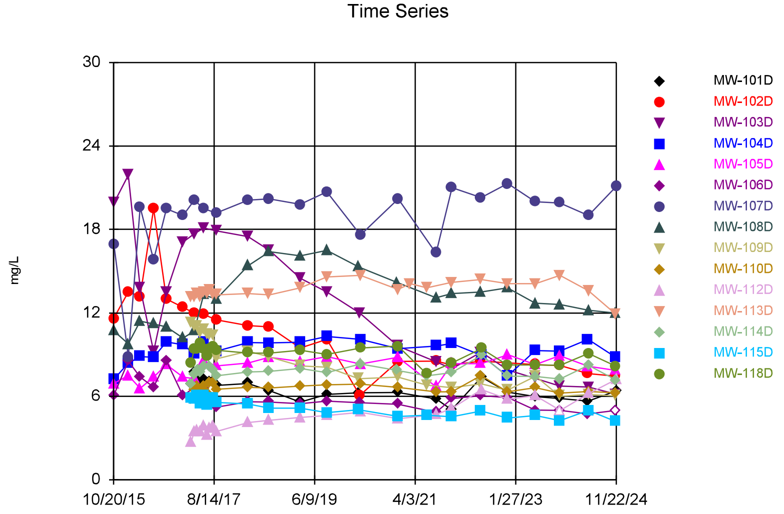
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.



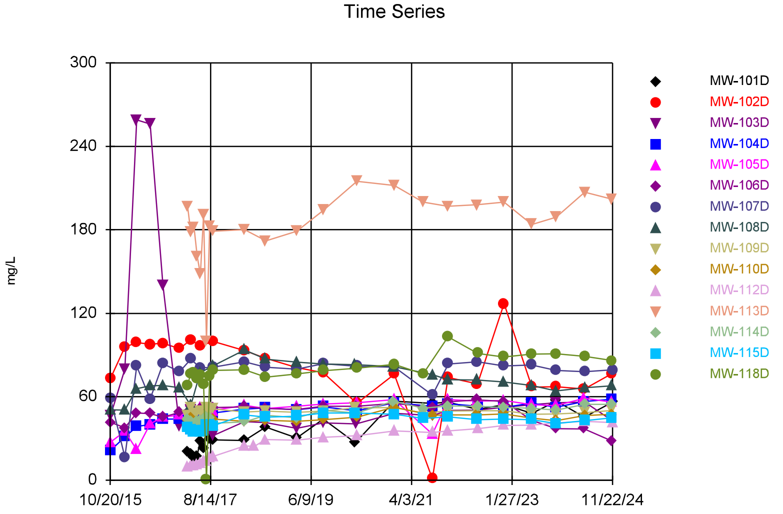
Constituent: Boron Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.



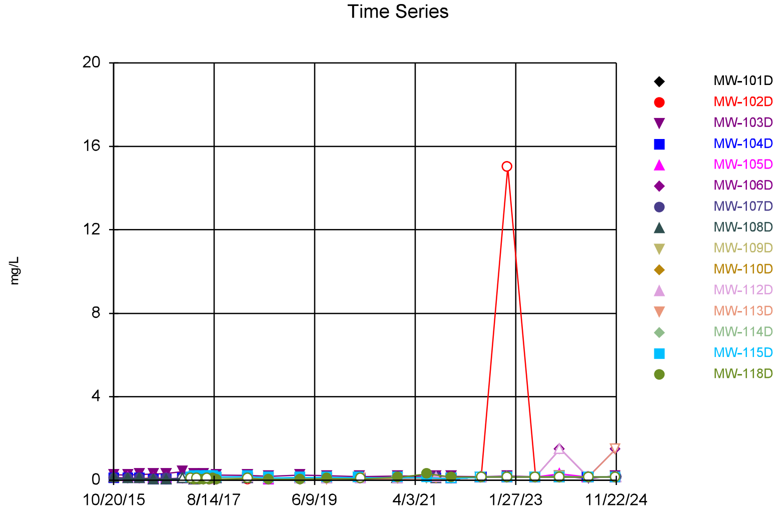
Constituent: Chloride Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG



Constituent: Calcium Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

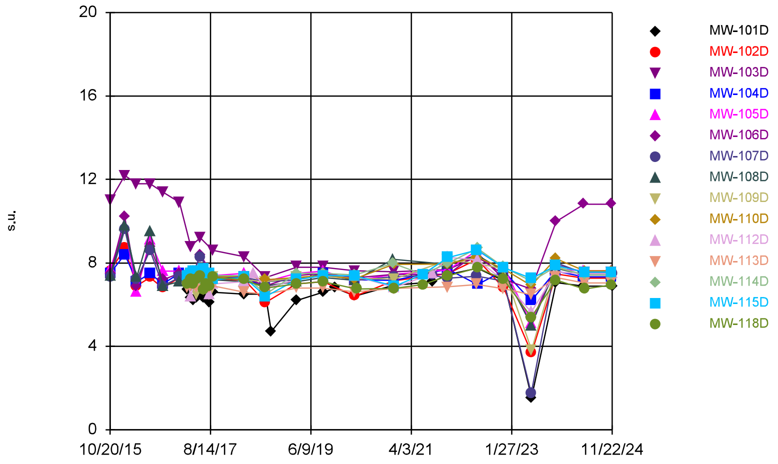
Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.



Constituent: Fluoride Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG

Time Series

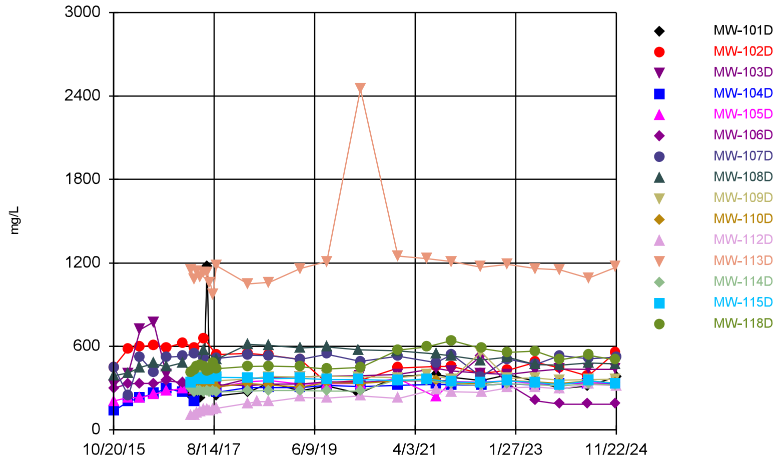


Constituent: pH Analysis Run 3/26/2025 4:29 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG

Time Series



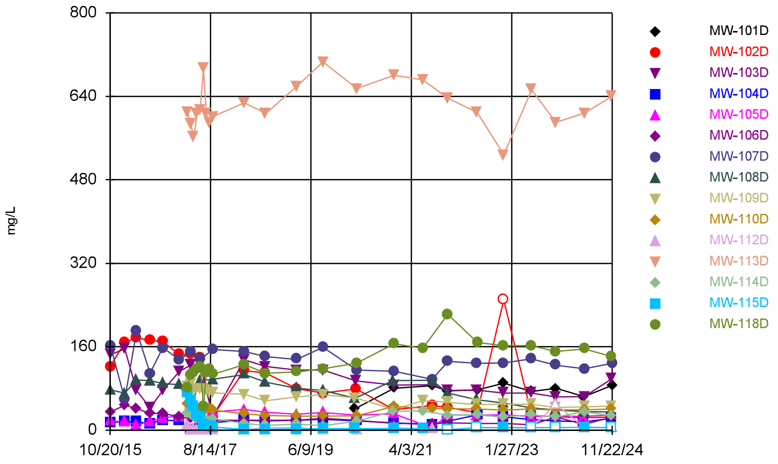
Constituent: TDS Analysis Run 3/26/2025 4:29 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Sulfate Analysis Run 3/26/2025 4:29 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

APPENDIX 3

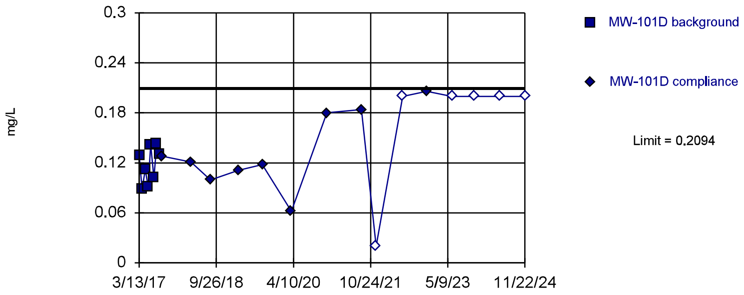
Statistic Analysis - Prediction Limit Analysis

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1174, Std. Dev.=0.0218, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9031, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

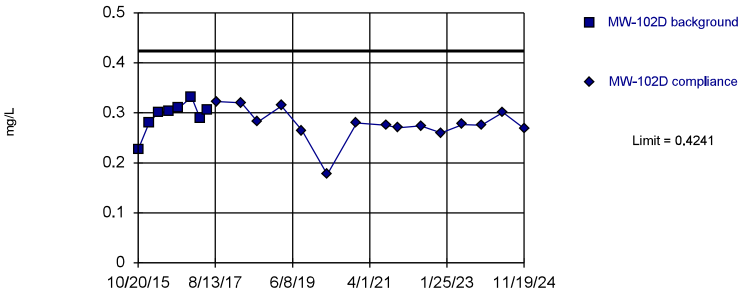
Constituent: Boron Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2939, Std. Dev.=0.03085, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.857, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

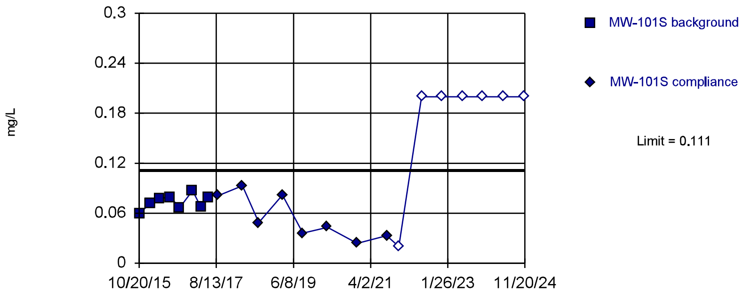
Constituent: Boron Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07369, Std. Dev.=0.008842, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9597, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

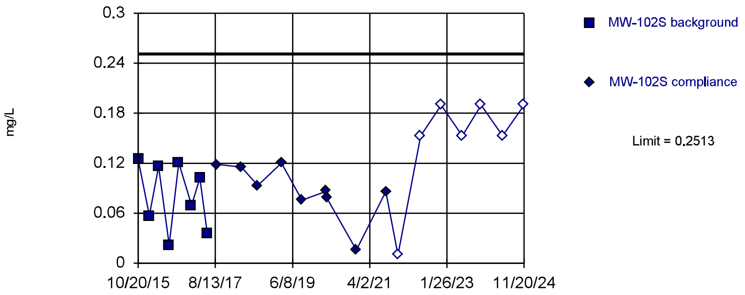
Constituent: Boron Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08096, Std. Dev.=0.04038, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8983, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

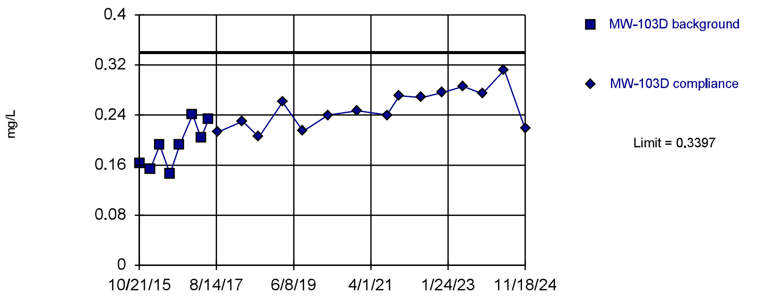
Constituent: Boron Analysis Run 3/26/2025 4:29 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1906, Std. Dev.=0.03532, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9278, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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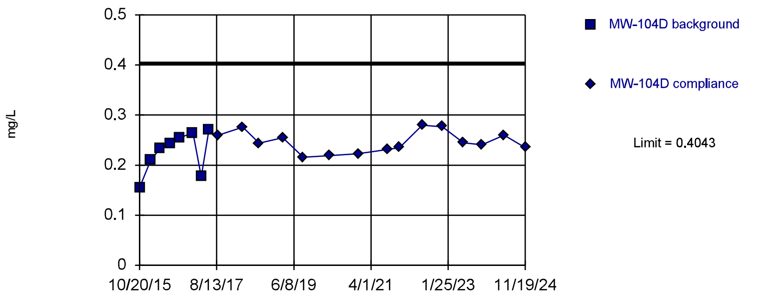
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2263, Std. Dev.=0.04219, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9106, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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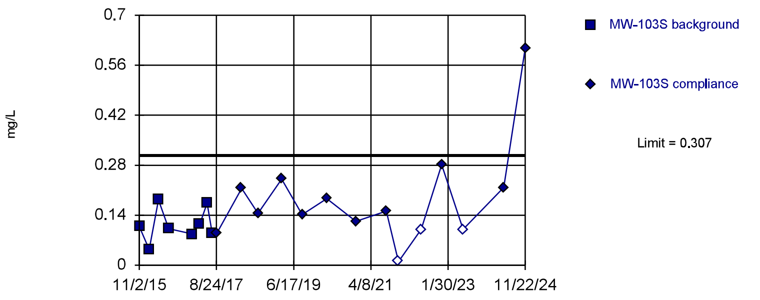
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1129, Std. Dev.=0.04598, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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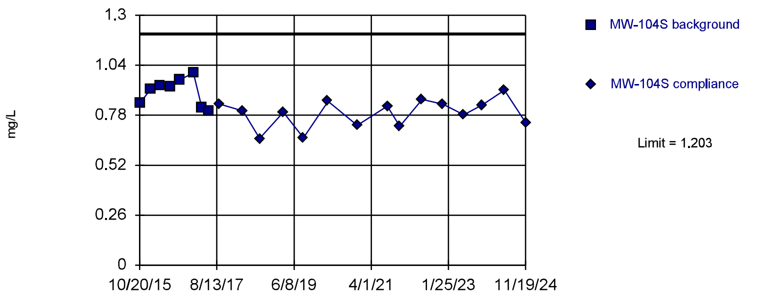
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.9018, Std. Dev.=0.07138, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9322, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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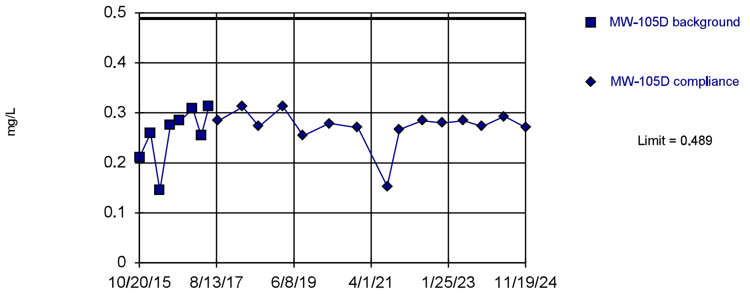
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.256, Std. Dev.=0.05522, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8908, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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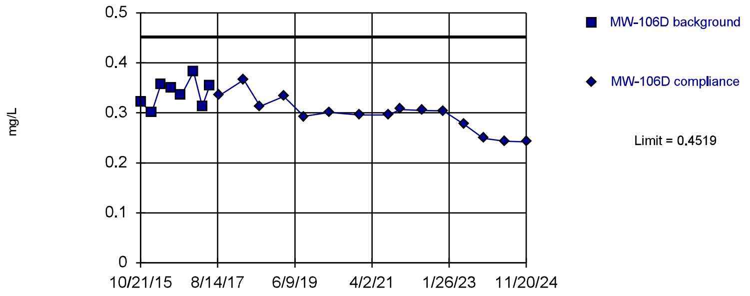
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3391, Std. Dev.=0.02671, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9753, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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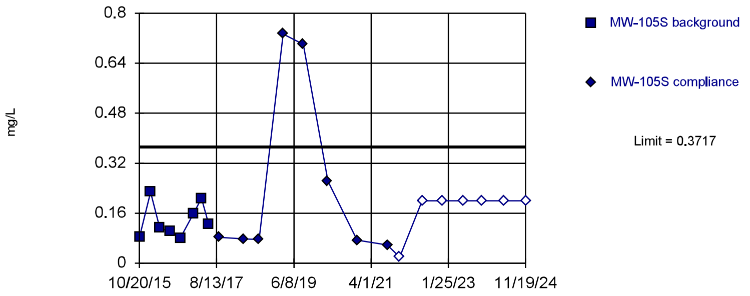
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1365, Std. Dev.=0.05572, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8816, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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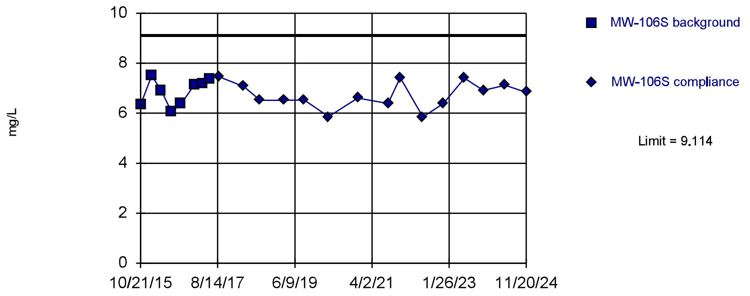
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.863, Std. Dev.=0.5335, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9108, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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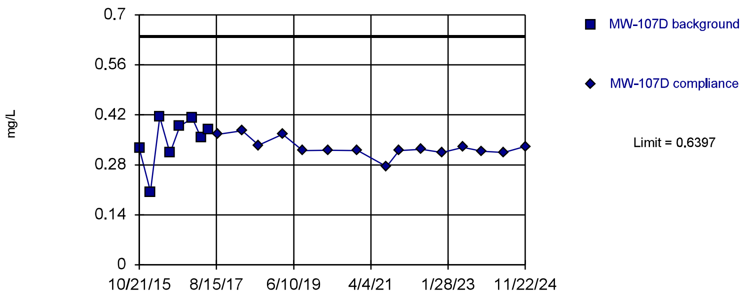
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3491, Std. Dev.=0.06885, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8686, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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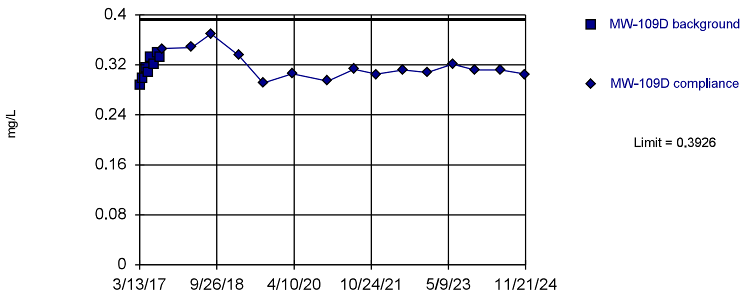
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3168, Std. Dev.=0.01798, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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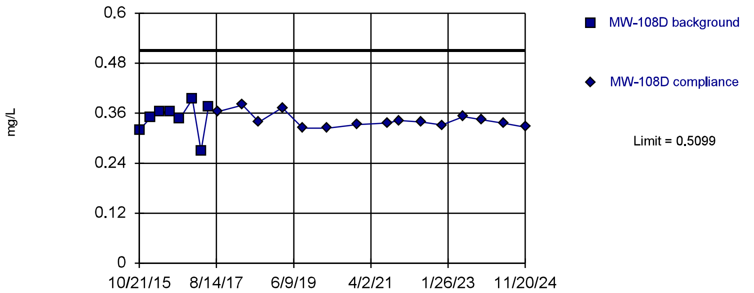
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3476, Std. Dev.=0.03846, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9052, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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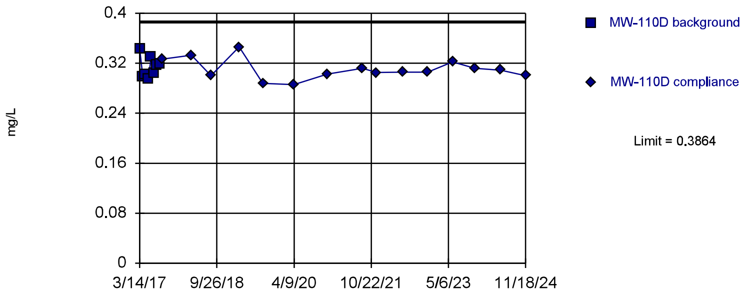
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3135, Std. Dev.=0.01727, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9305, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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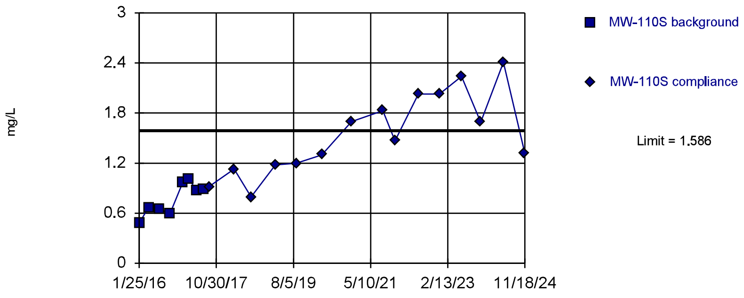
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.767, Std. Dev.=0.1941, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9226, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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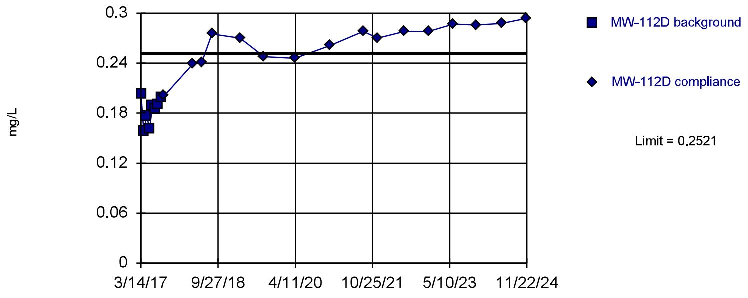
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1828, Std. Dev.=0.01643, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9224, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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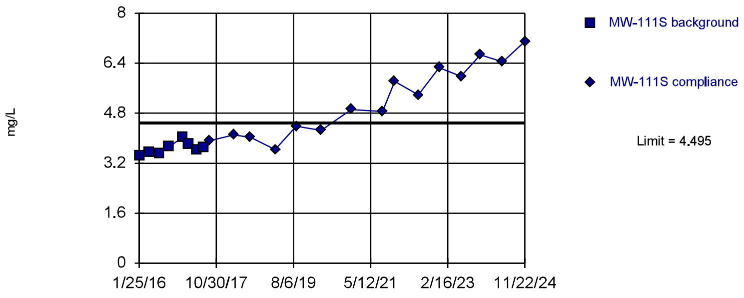
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.68, Std. Dev.=0.1931, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9589, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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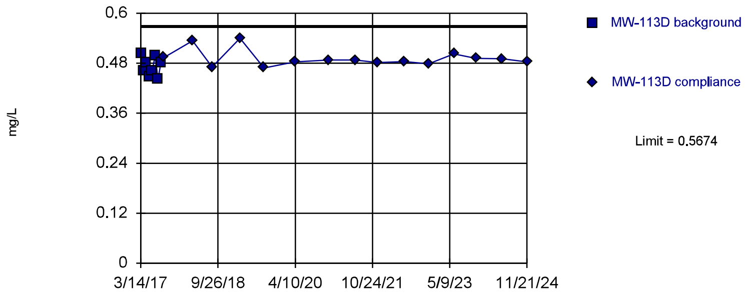
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4721, Std. Dev.=0.02258, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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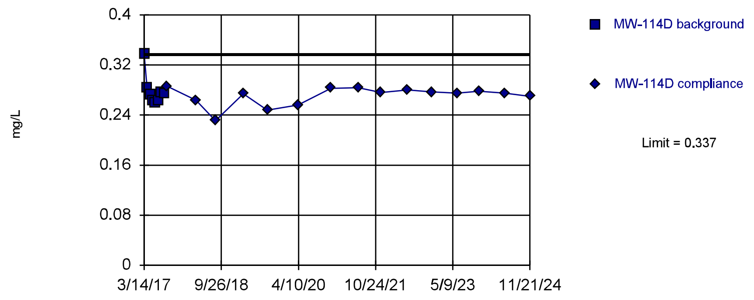
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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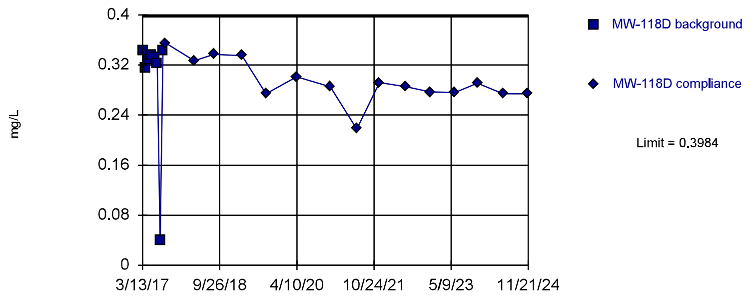
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=0.003543, Std. Dev.=0.00154, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7631, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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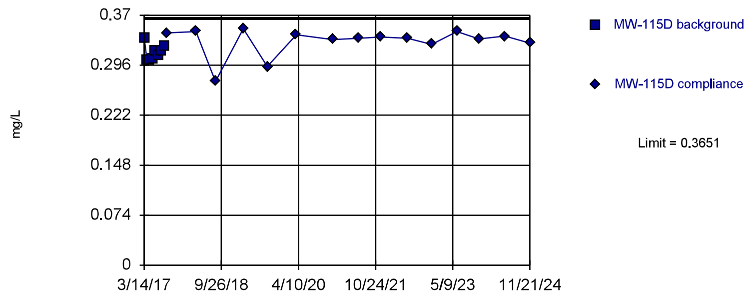
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3151, Std. Dev.=0.01185, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9084, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Boron Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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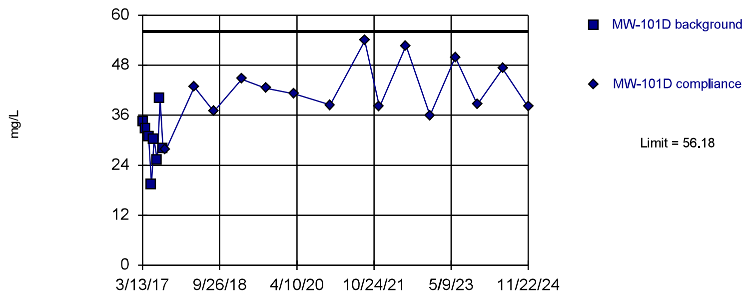
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=30.14, Std. Dev.=6.169, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9887, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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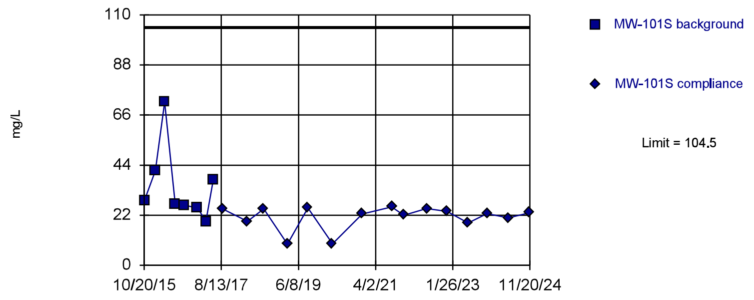
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=34.59, Std. Dev.=16.56, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7871, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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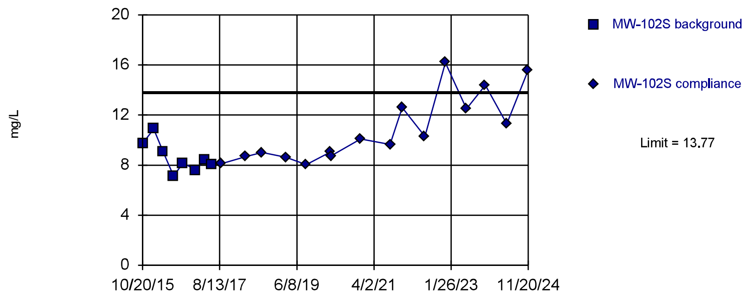
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.644, Std. Dev.=1.216, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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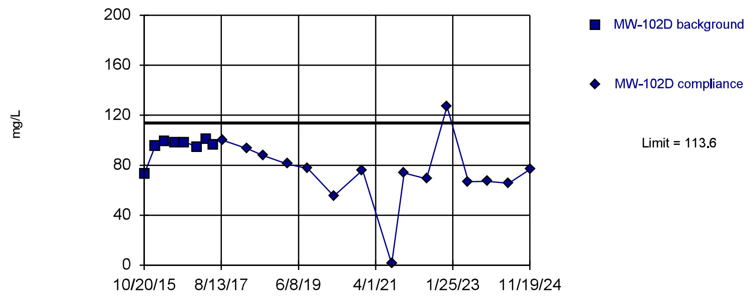
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=8.0e9, Std. Dev.=2.6e9, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7615, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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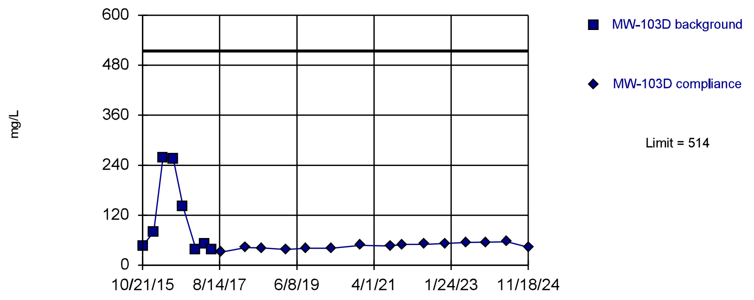
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=113.6, Std. Dev.=94.88, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7695, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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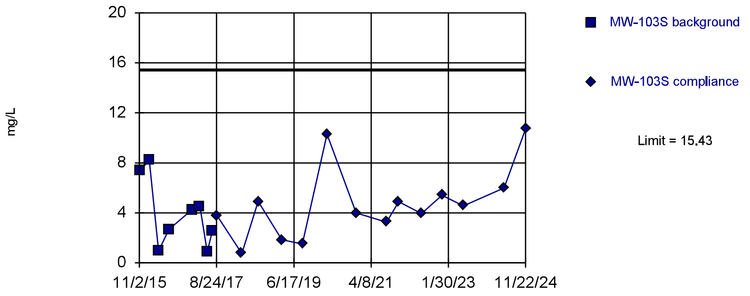
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.928, Std. Dev.=2.726, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9116, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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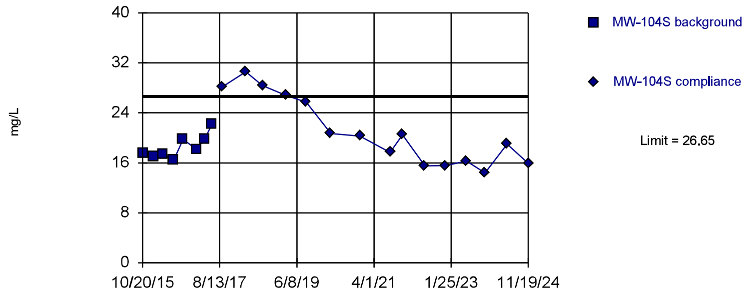
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=18.55, Std. Dev.=1.921, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9103, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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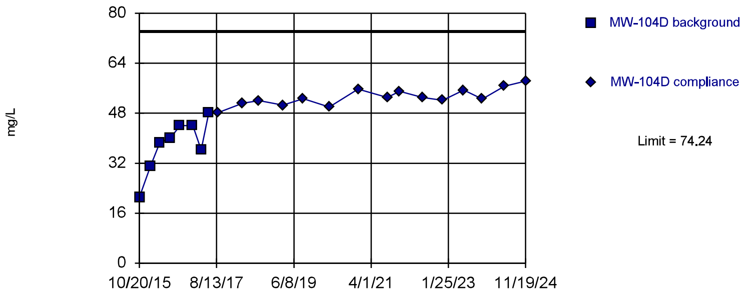
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=37.95, Std. Dev.=8.599, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9298, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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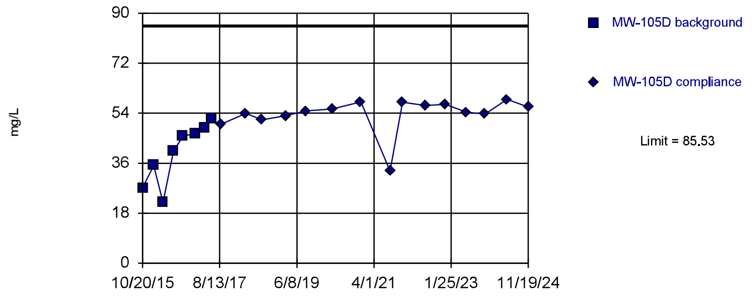
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=39.8, Std. Dev.=10.84, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9232, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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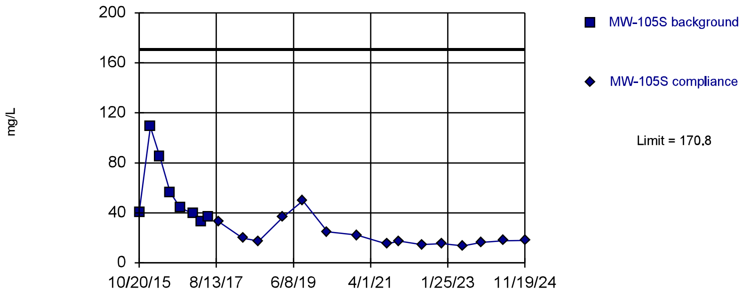
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=55.59, Std. Dev.=27.31, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.796, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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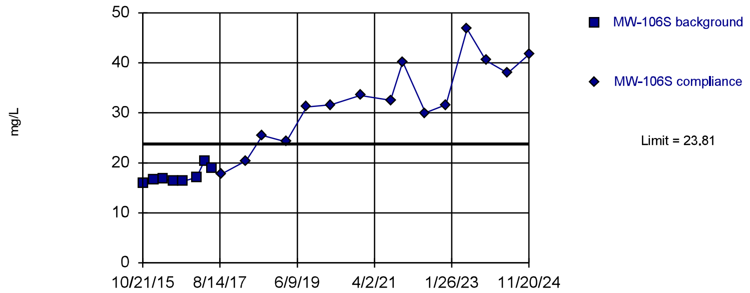
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=17.3, Std. Dev.=1.542, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7946, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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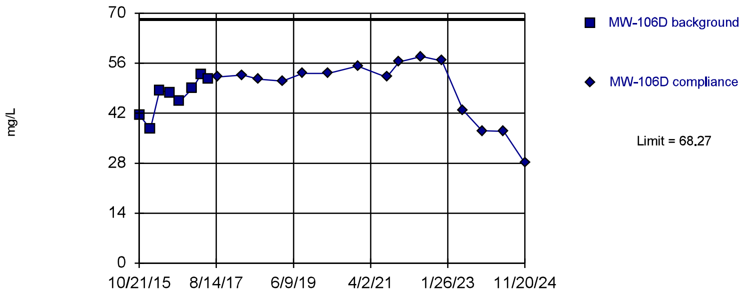
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=46.78, Std. Dev.=5.094, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.936, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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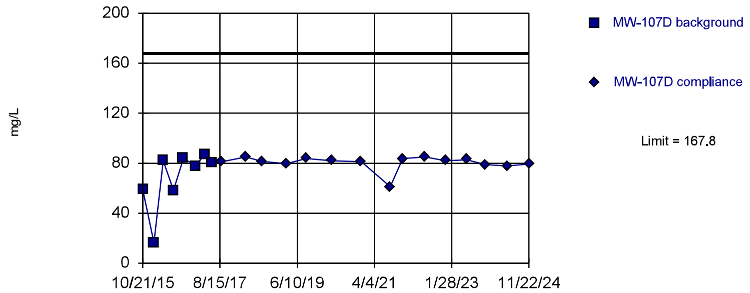
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=68.18, Std. Dev.=23.61, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7738, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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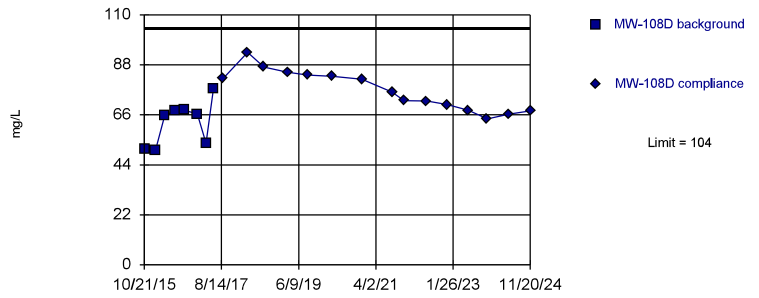
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=62.53, Std. Dev.=9.822, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8809, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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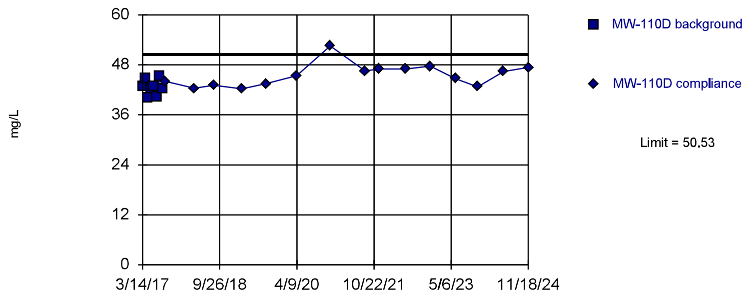
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.58, Std. Dev.=1.885, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9202, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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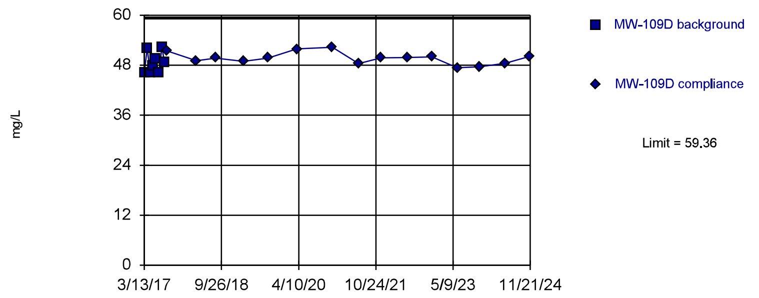
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=48.61, Std. Dev.=2.548, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8703, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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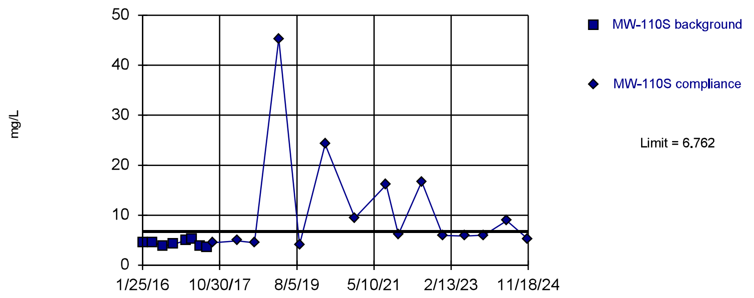
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.346, Std. Dev.=0.5726, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9595, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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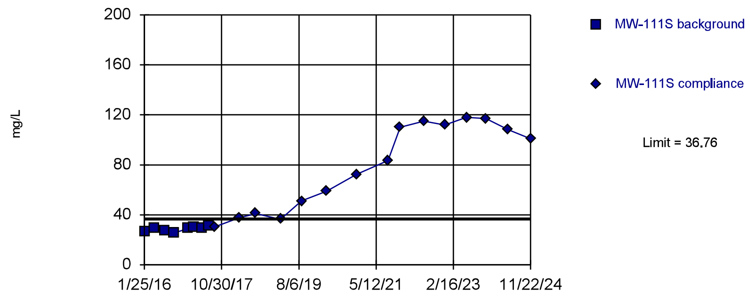
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.65, Std. Dev.=1.921, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8859, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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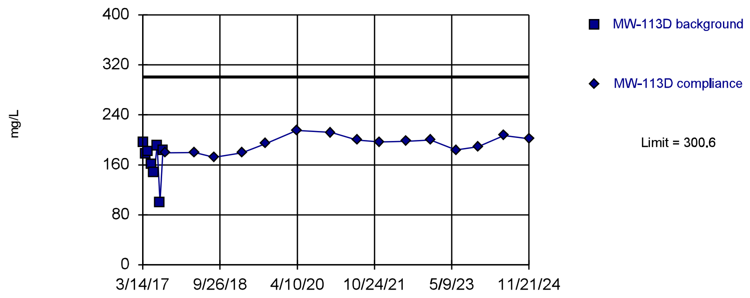
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=167.5, Std. Dev.=31.54, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8377, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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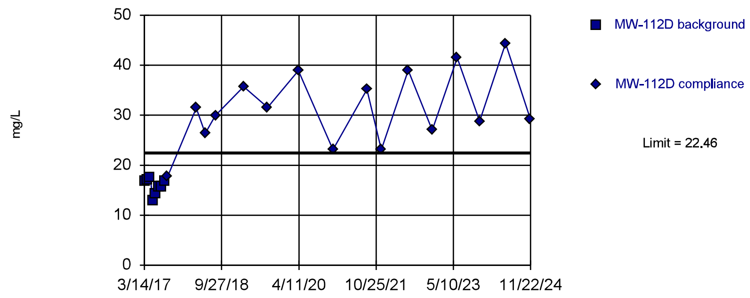
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=15.88, Std. Dev.=1.559, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9084, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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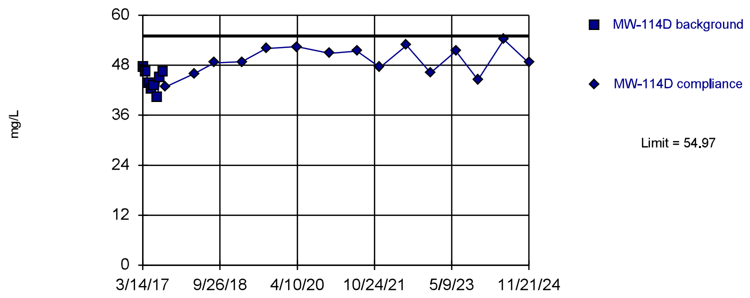
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=44.34, Std. Dev.=2.519, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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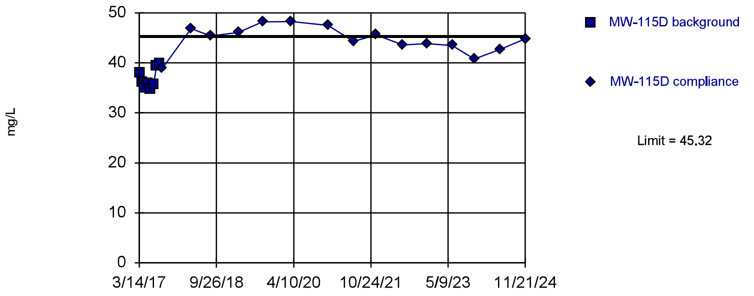
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.85, Std. Dev.=2.008, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8728, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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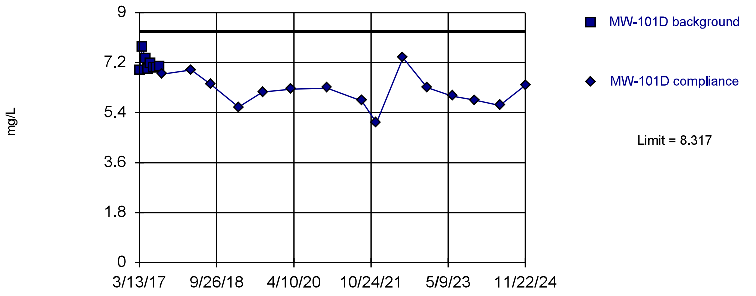
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.159, Std. Dev.=0.2746, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7961, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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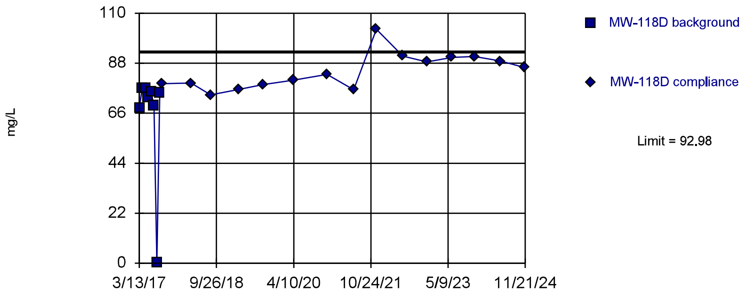
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=2.6e7, Std. Dev.=1.2e7, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7888, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Calcium Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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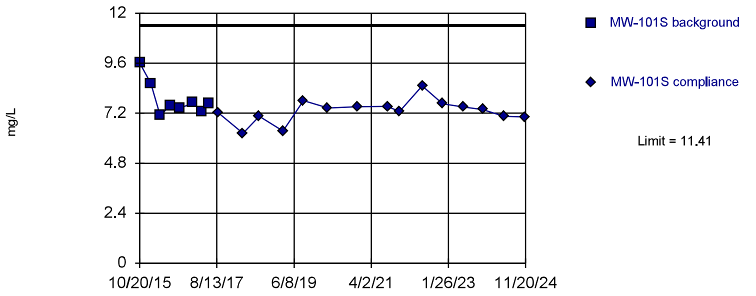
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.878, Std. Dev.=0.838, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8152, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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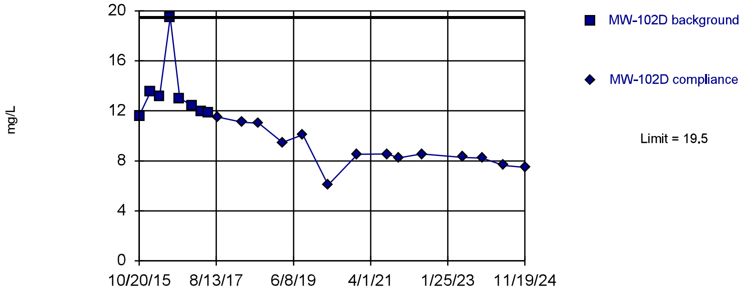
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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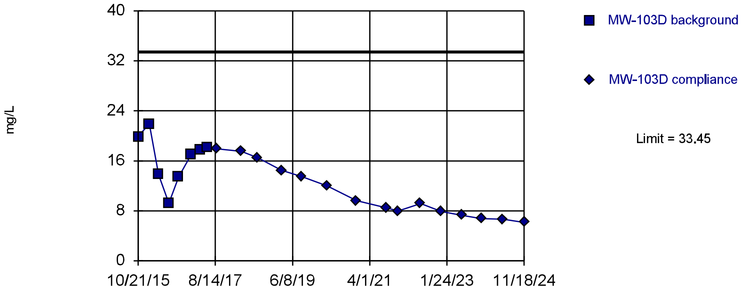
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.4, Std. Dev.=4.041, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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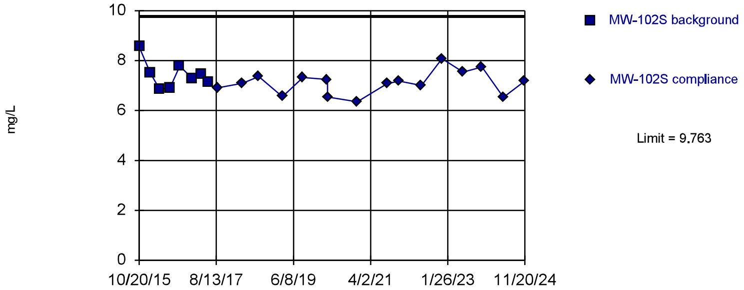
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.44, Std. Dev.=0.5504, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9064, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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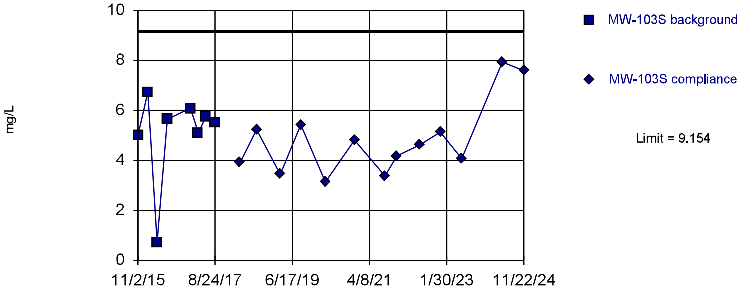
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=28.65, Std. Dev.=13.07, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8733, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:30 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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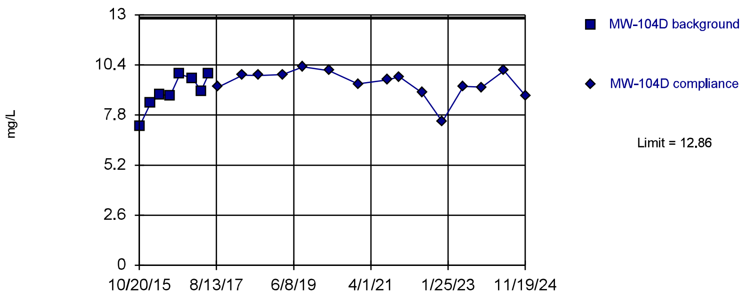
Within Limit

Prediction Limit

Intrawell Parametric



Limit = 12.86

Background Data Summary: Mean=8.99, Std. Dev.=0.9163, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.902, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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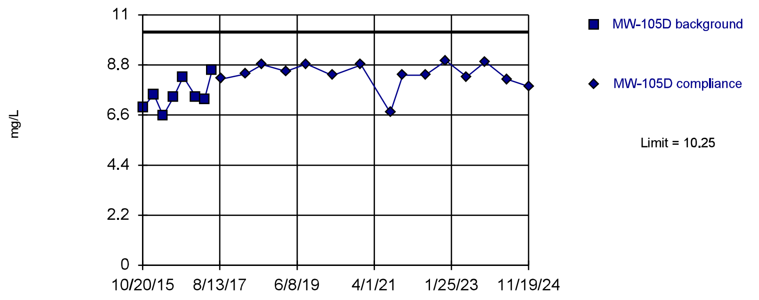
Within Limit

Prediction Limit

Intrawell Parametric



Limit = 10.25

Background Data Summary: Mean=7.489, Std. Dev.=0.6532, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9324, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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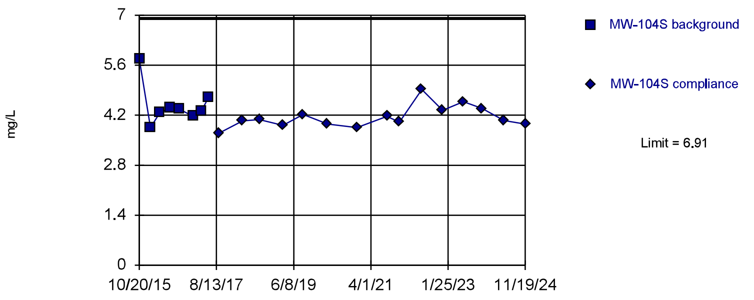
Within Limit

Prediction Limit

Intrawell Parametric



Limit = 6.91

Background Data Summary: Mean=4.486, Std. Dev.=0.5744, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8008, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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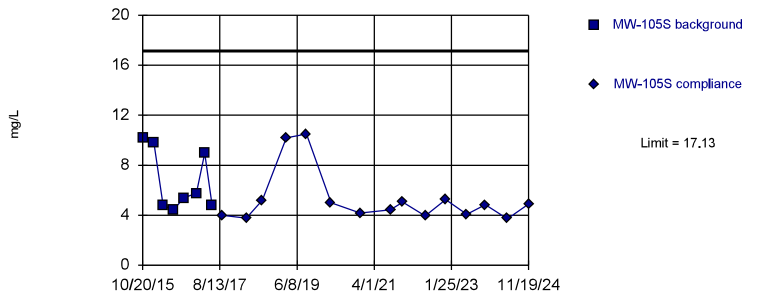
Within Limit

Prediction Limit

Intrawell Parametric



Limit = 17.13

Background Data Summary: Mean=6.773, Std. Dev.=2.454, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8081, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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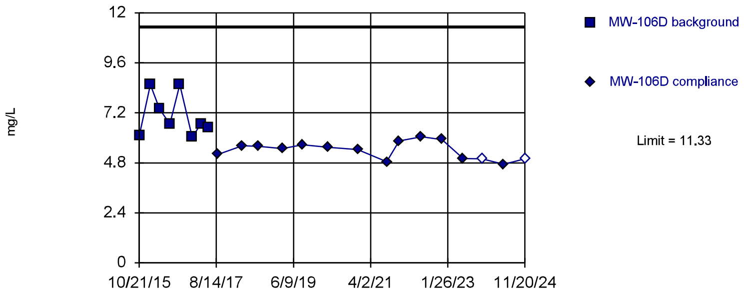
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.06, Std. Dev.=1.012, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8449, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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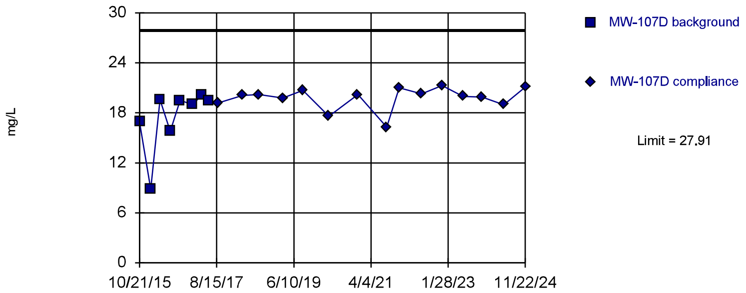
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=315.4, Std. Dev.=109.9, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7832, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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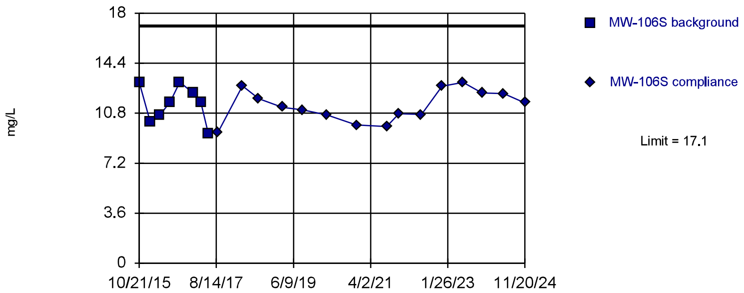
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=11.46, Std. Dev.=1.337, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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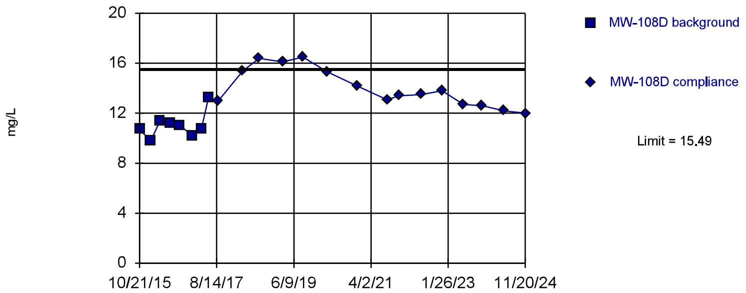
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=11.03, Std. Dev.=1.057, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8785, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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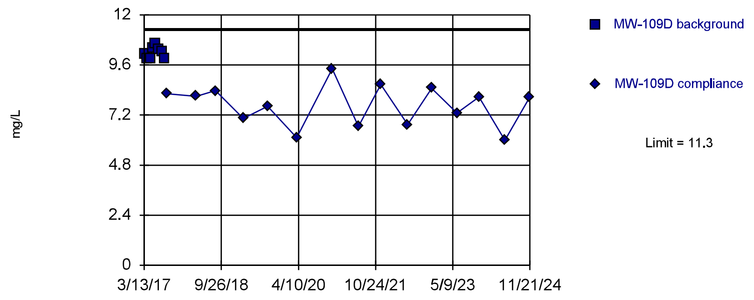
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.2, Std. Dev.=0.2622, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9043, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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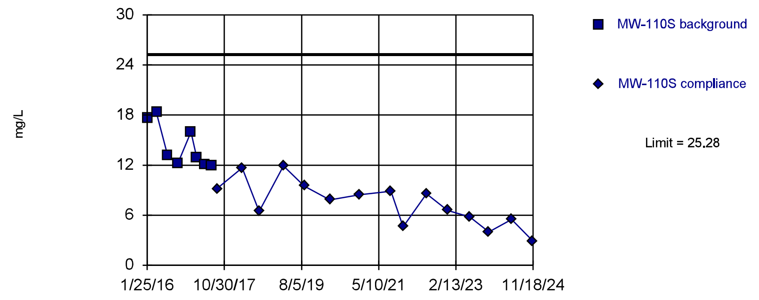
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.29, Std. Dev.=2.605, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8179, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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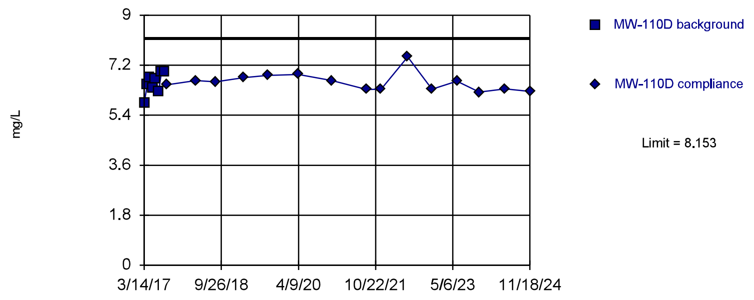
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.546, Std. Dev.=0.3808, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9292, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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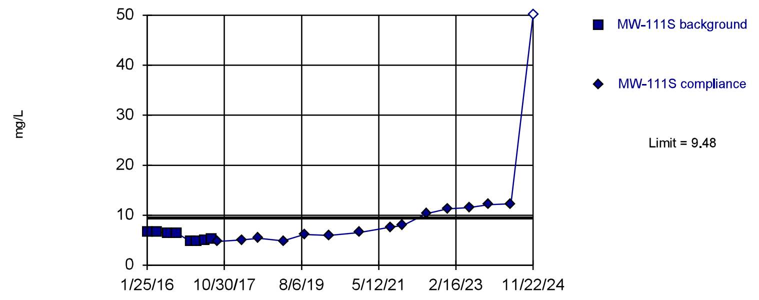
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.744, Std. Dev.=0.8854, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8287, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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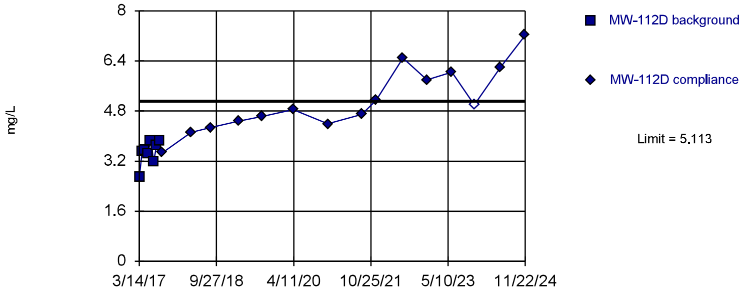
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.476, Std. Dev.=0.3878, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8825, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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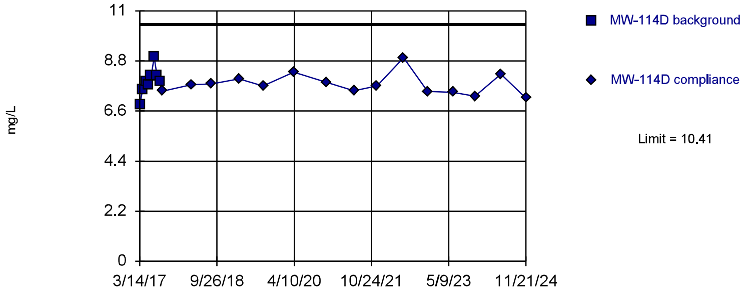
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.909, Std. Dev.=0.593, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9542, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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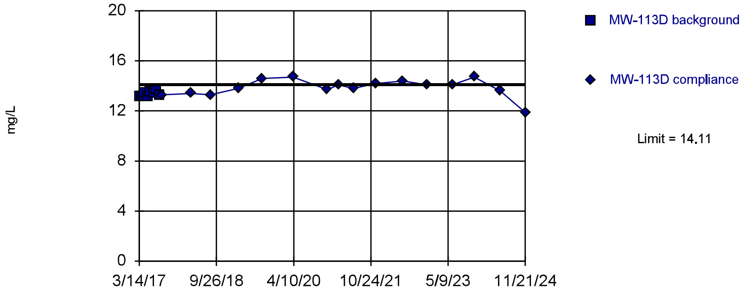
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=13.36, Std. Dev.=0.1768, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.877, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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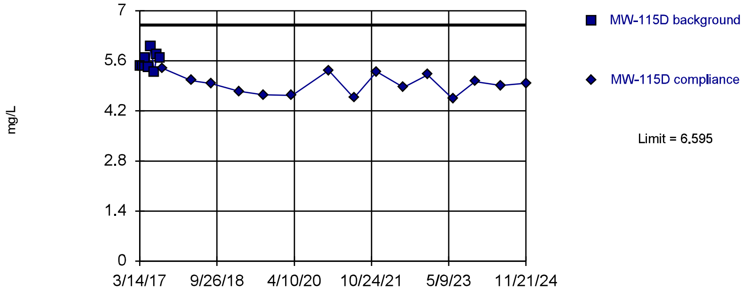
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.592, Std. Dev.=0.2376, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9495, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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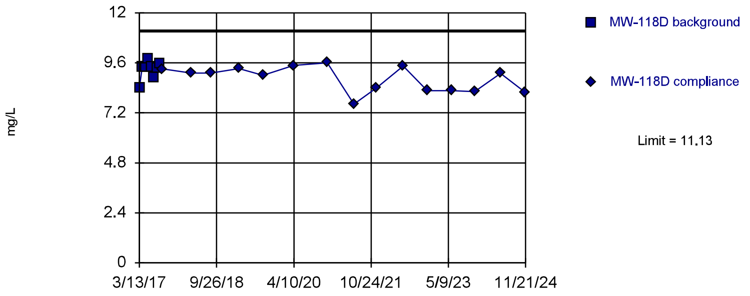
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.286, Std. Dev.=0.436, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.855, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Chloride Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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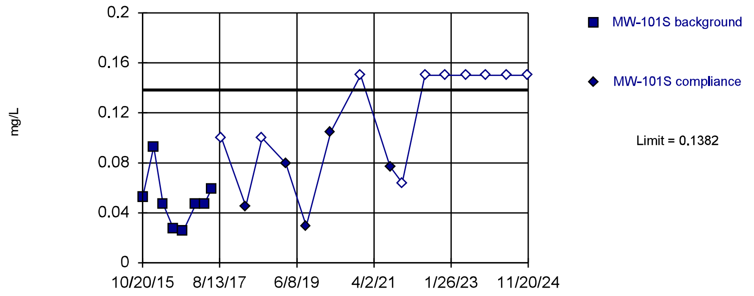
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.04984, Std. Dev.=0.02095, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8733, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

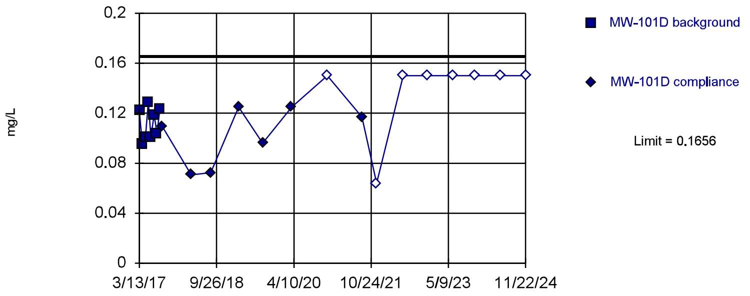
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1118, Std. Dev.=0.01274, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8859, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

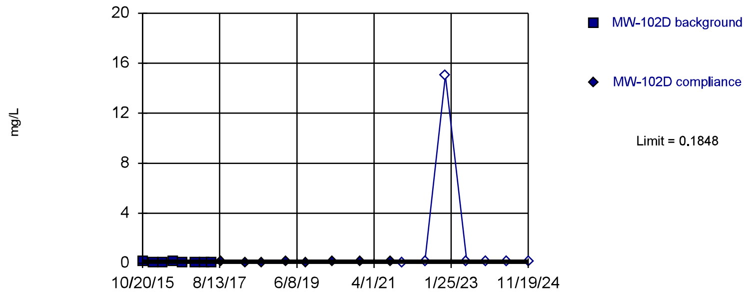
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08016, Std. Dev.=0.02481, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8478, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

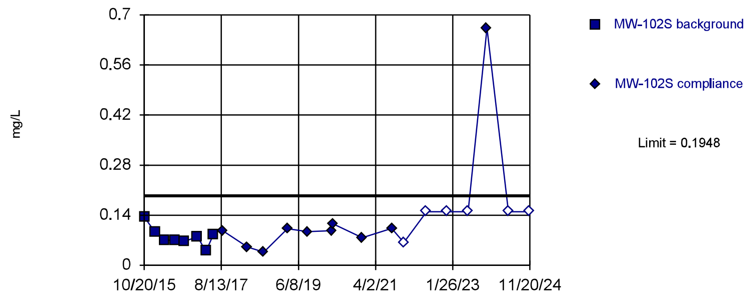
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07966, Std. Dev.=0.02727, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9108, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

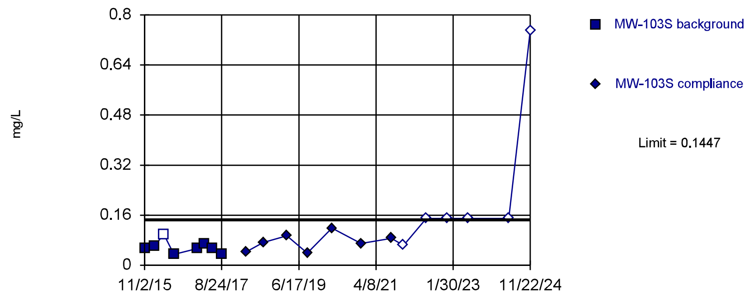
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05781, Std. Dev.=0.02059, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.891, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

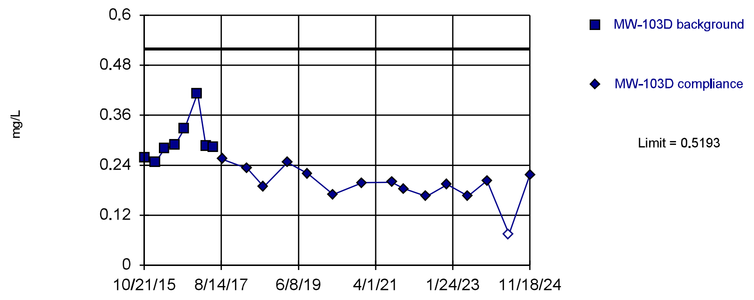
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2978, Std. Dev.=0.0525, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8082, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

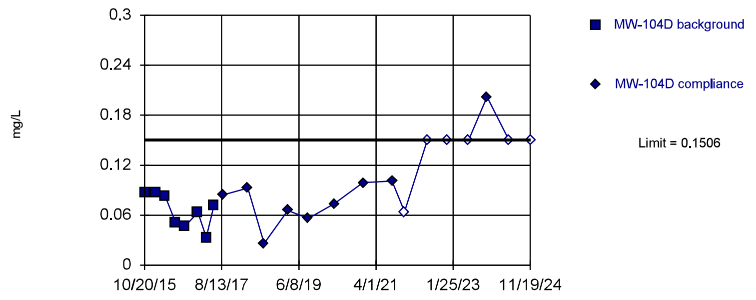
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.06551, Std. Dev.=0.02017, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9152, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

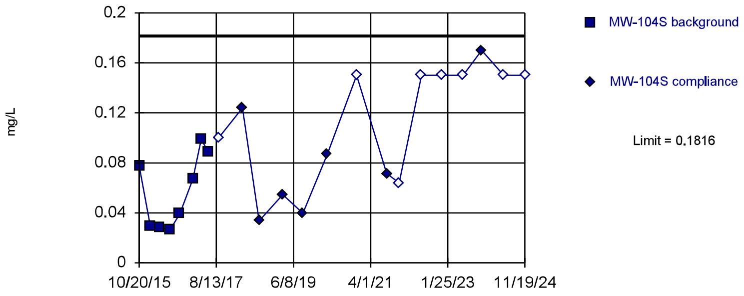
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05696, Std. Dev.=0.02954, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8672, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

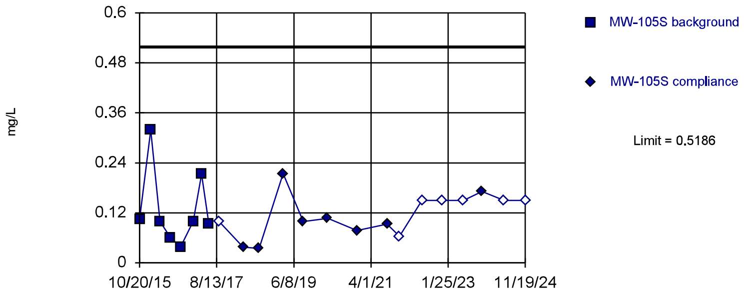
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1282, Std. Dev.=0.09251, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8133, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

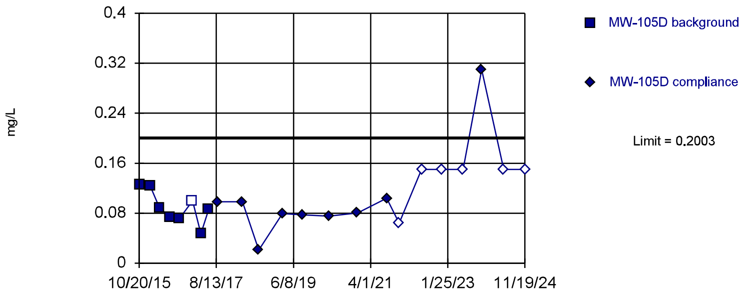
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08938, Std. Dev.=0.02629, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9513, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

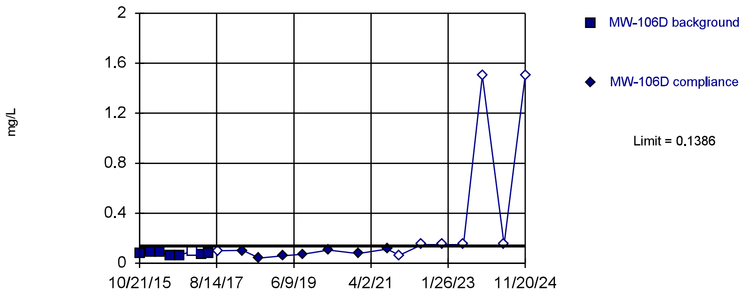
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07896, Std. Dev.=0.01414, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

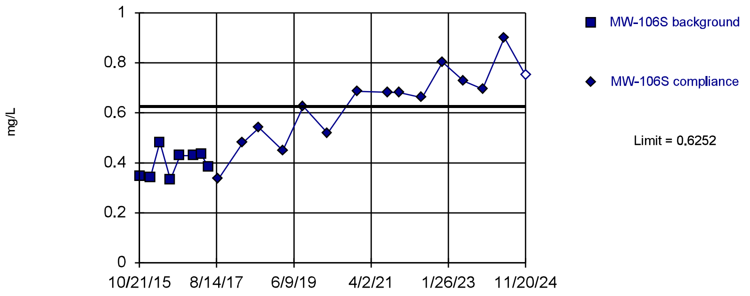
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.3978, Std. Dev.=0.0539, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9095, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

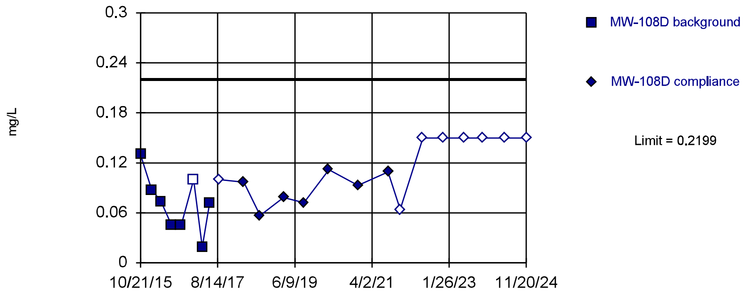
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07159, Std. Dev.=0.03515, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9821, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

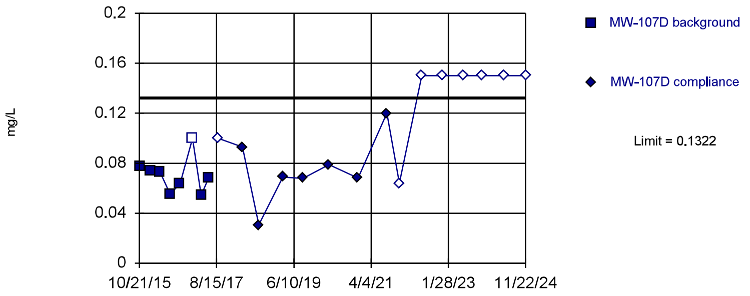
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07083, Std. Dev.=0.01455, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9117, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

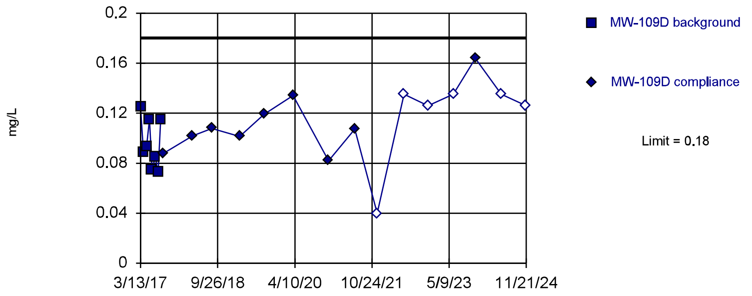
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.09638, Std. Dev.=0.01982, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9093, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM

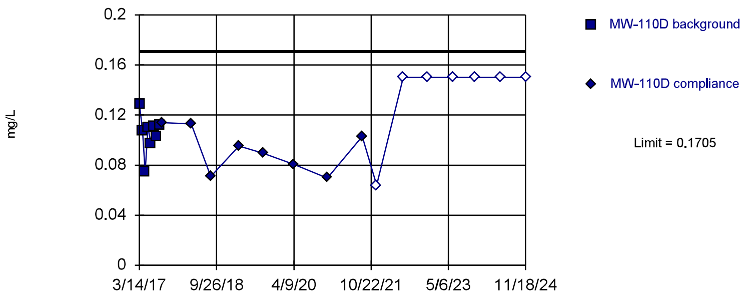
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1055, Std. Dev.=0.01539, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9163, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

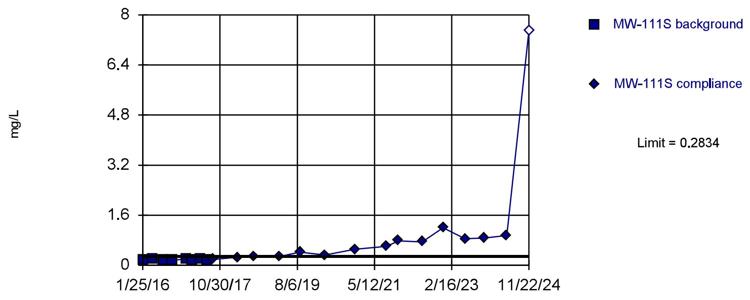
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1786, Std. Dev.=0.02482, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

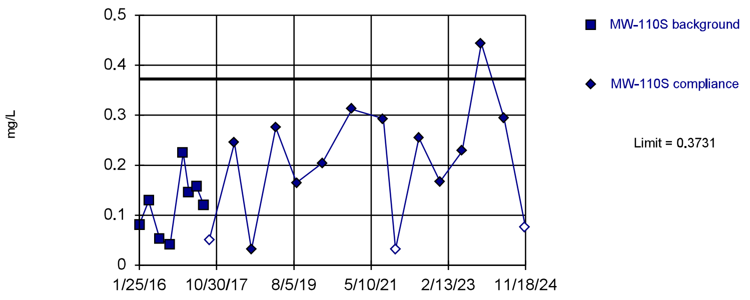
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1186, Std. Dev.=0.06029, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9581, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

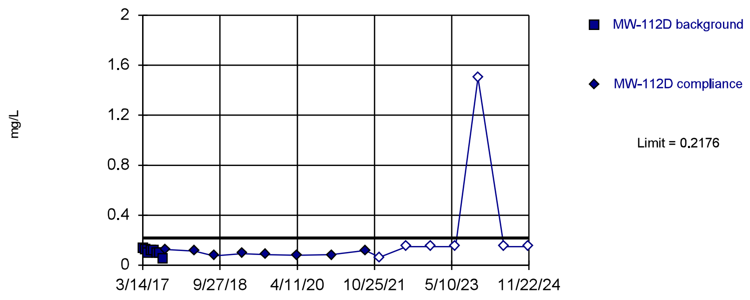
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1062, Std. Dev.=0.02641, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

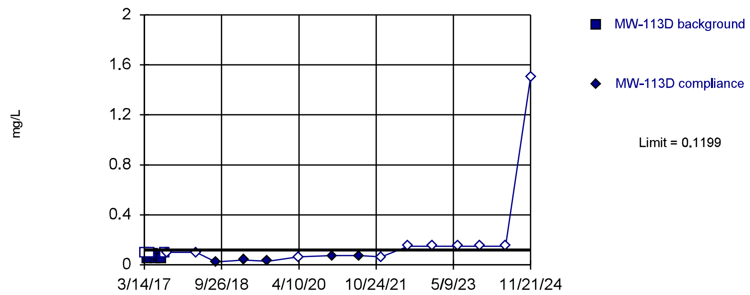
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0617, Std. Dev.=0.0138, n=8, 37.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8043, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

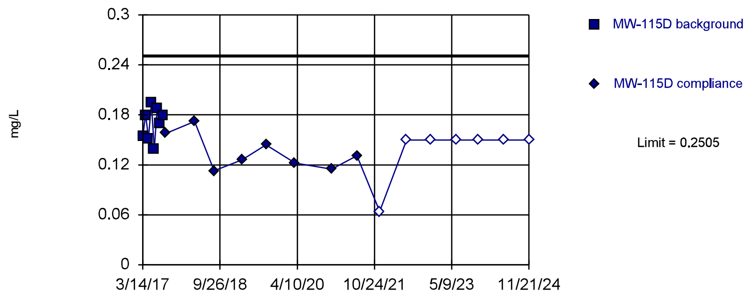
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1694, Std. Dev.=0.01921, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

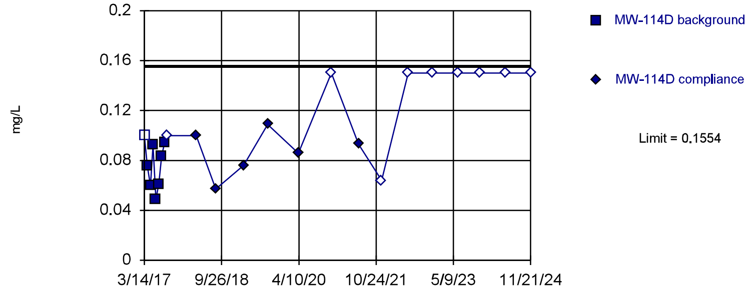
Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.077, Std. Dev.=0.01859, n=8, 12.5% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9293, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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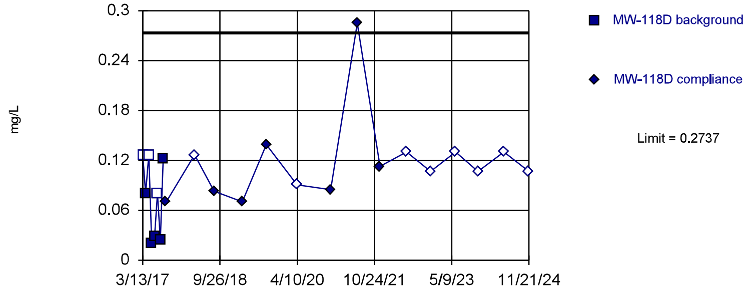
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.07636, Std. Dev.=0.04676, n=8, 37.5% NDs. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8345, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Fluoride Analysis Run 3/26/2025 4:31 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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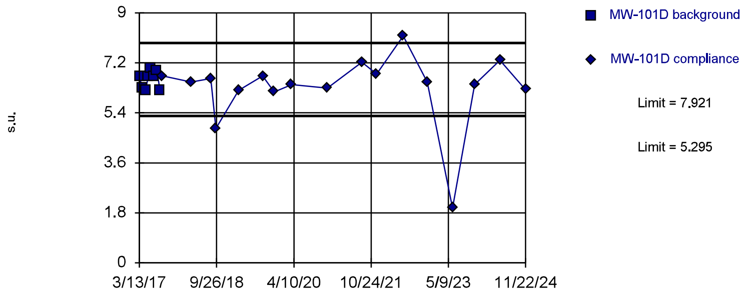
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.608, Std. Dev.=0.3111, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8784, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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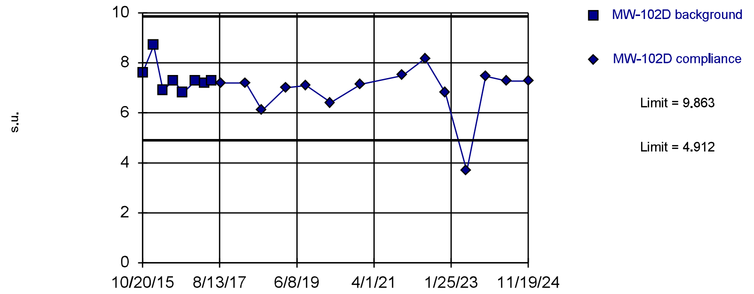
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.388, Std. Dev.=0.5866, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8007, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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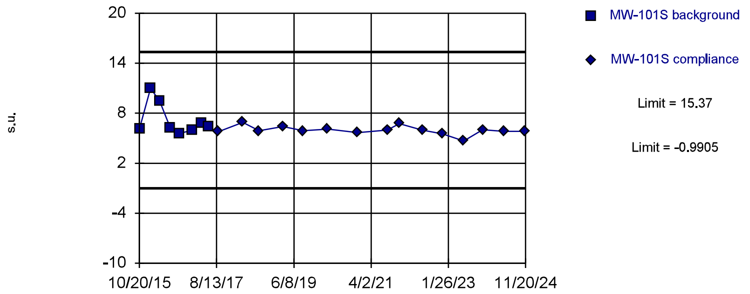
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.188, Std. Dev.=1.938, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7625, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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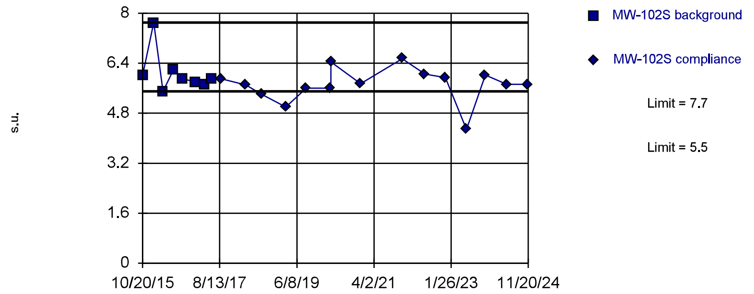
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2). Seasonality was not detected with 95% confidence.

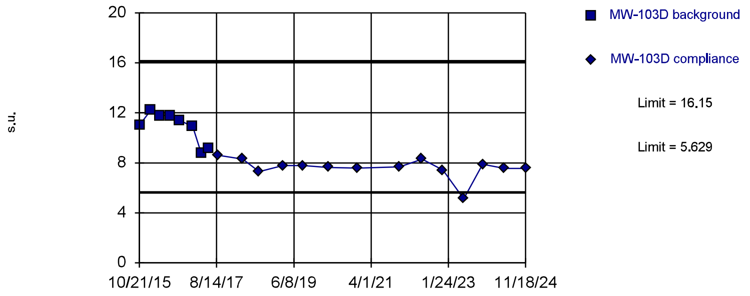
Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.89, Std. Dev.=1.246, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8613, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

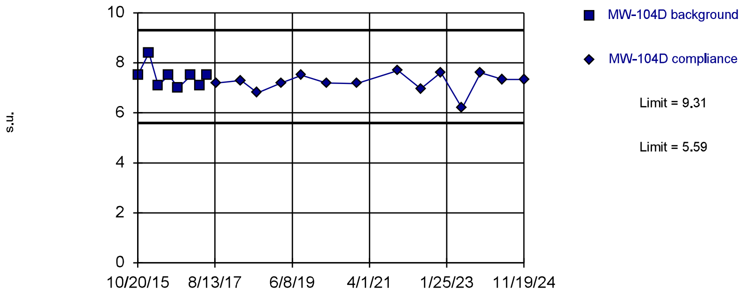
Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.45, Std. Dev.=0.4408, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8007, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

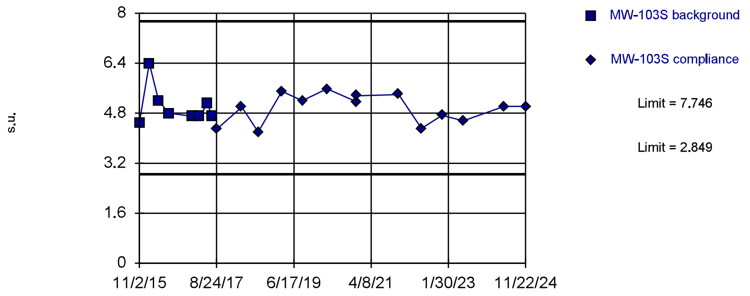
Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.236, Std. Dev.=0.1298, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7626, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

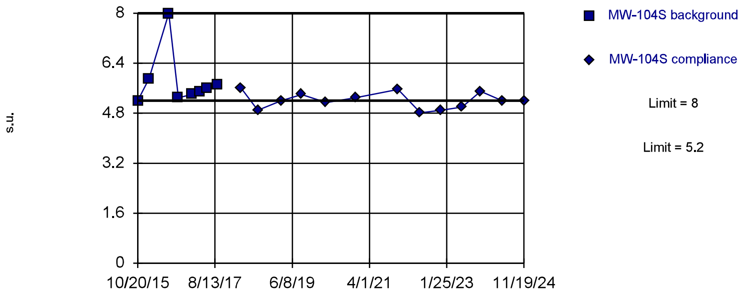
Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Exceeds Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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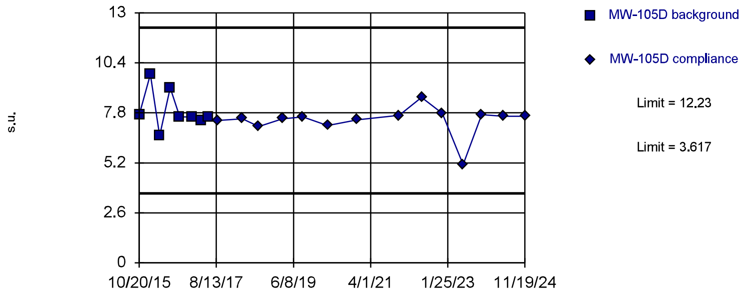
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.925, Std. Dev.=1.021, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8512, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:31 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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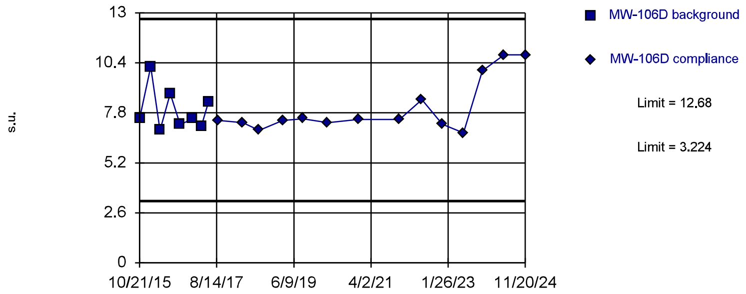
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.95, Std. Dev.=1.12, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8577, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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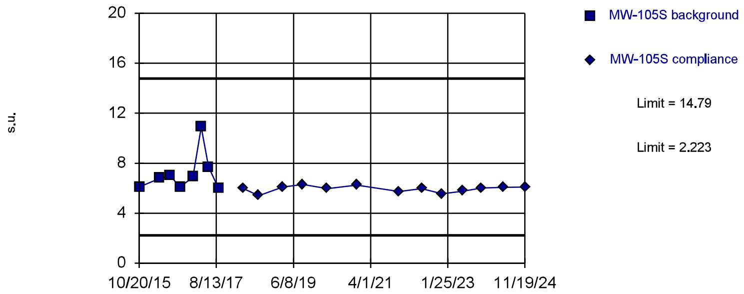
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.668, Std. Dev.=0.279, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7609, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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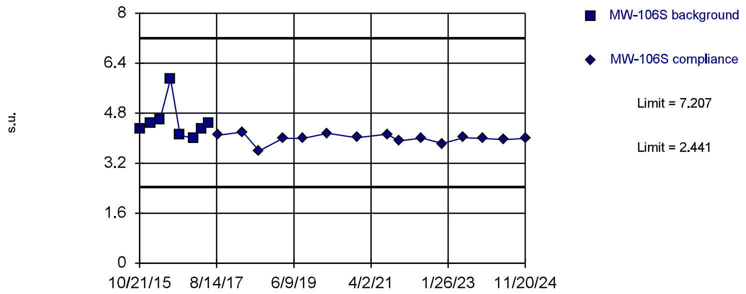
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.124, Std. Dev.=0.133, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7694, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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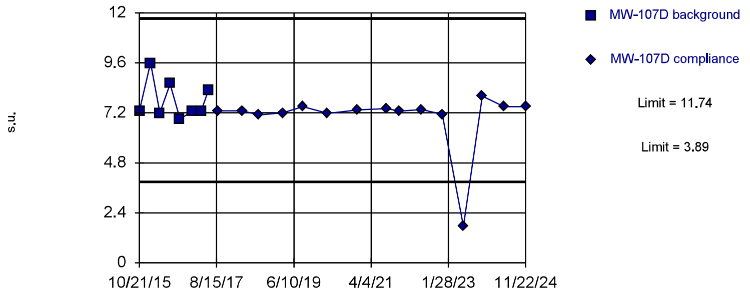
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.813, Std. Dev.=0.9296, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8379, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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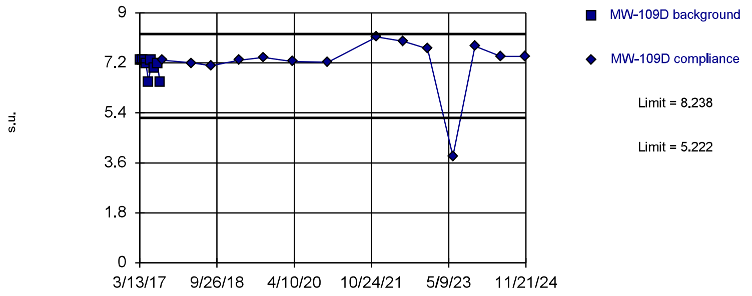
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=350.7, Std. Dev.=49.36, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7546, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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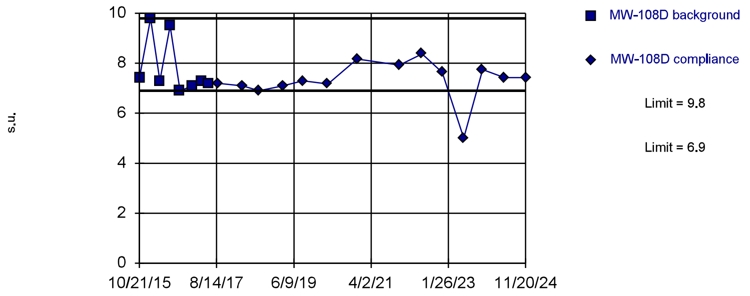
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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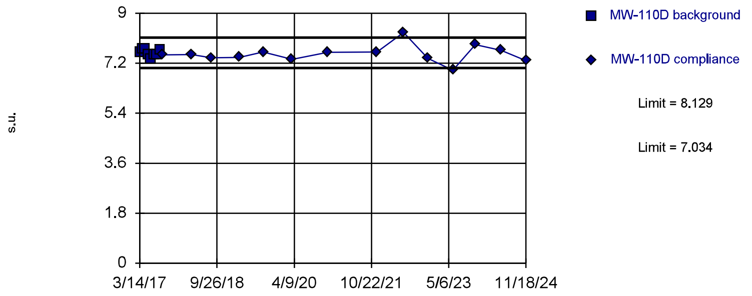
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.582, Std. Dev.=0.1298, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.865, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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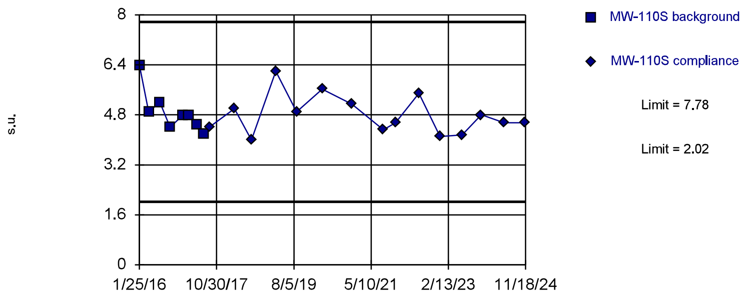
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.9, Std. Dev.=0.6824, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8395, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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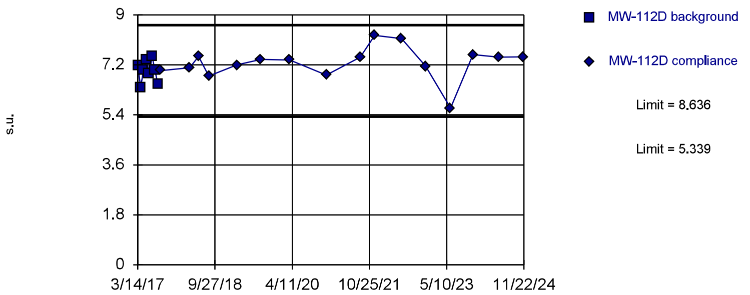
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.988, Std. Dev.=0.3907, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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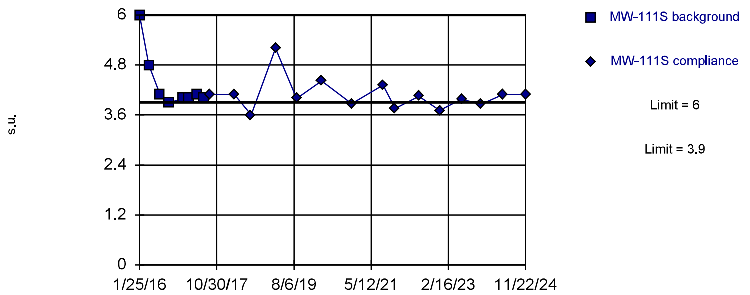
Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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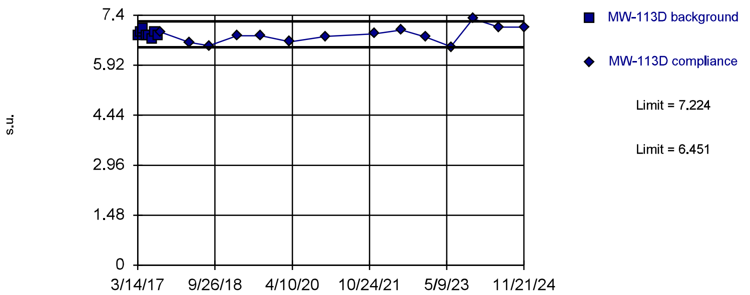
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.838, Std. Dev.=0.09161, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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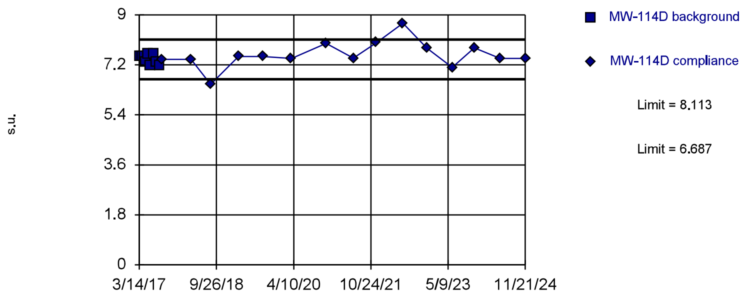
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.4, Std. Dev.=0.169, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.86, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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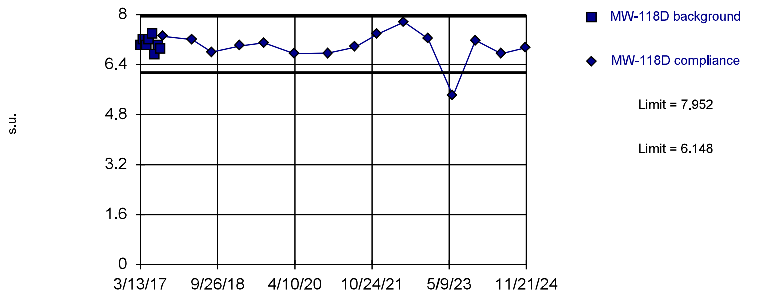
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.05, Std. Dev.=0.2138, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9571, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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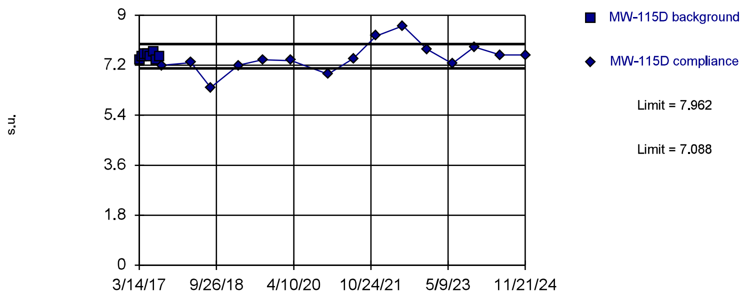
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.525, Std. Dev.=0.1035, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9171, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: pH Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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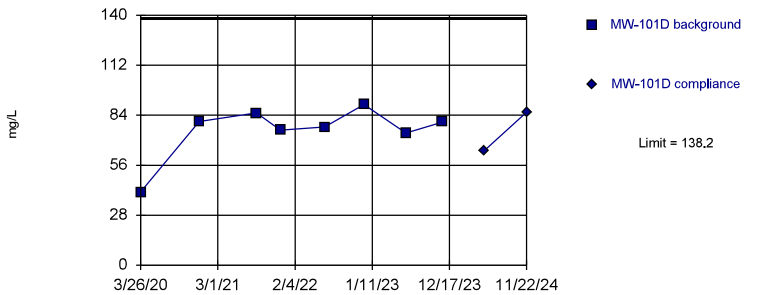
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=75.49, Std. Dev.=14.86, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7559, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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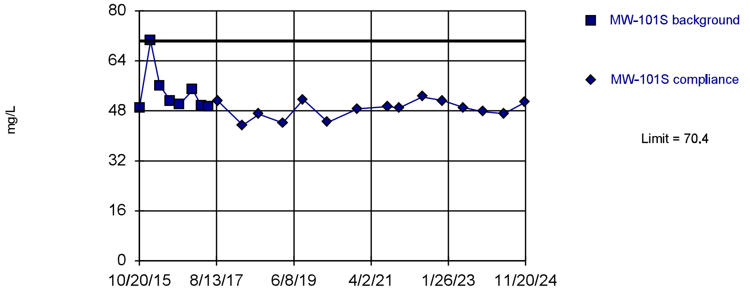
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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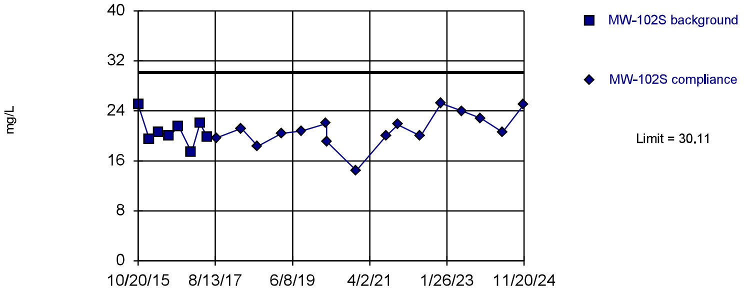
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.73, Std. Dev.=2.225, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9492, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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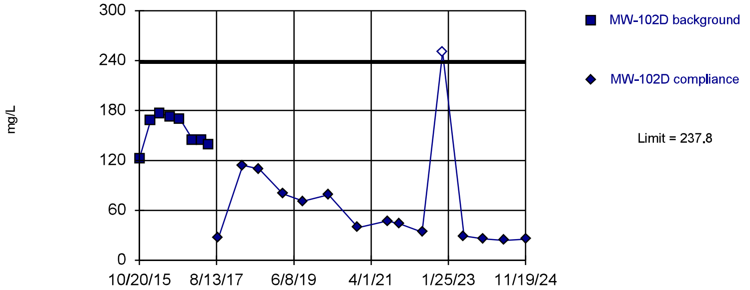
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=154.8, Std. Dev.=19.68, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8991, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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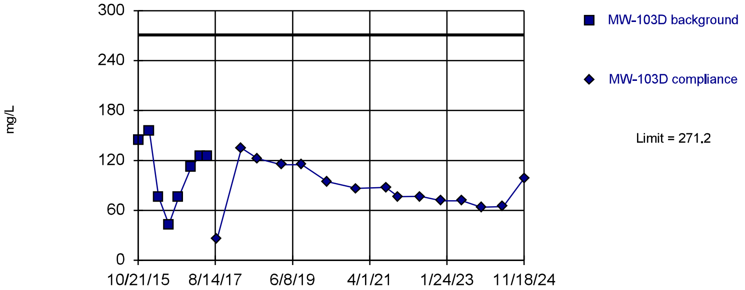
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=107.4, Std. Dev.=38.83, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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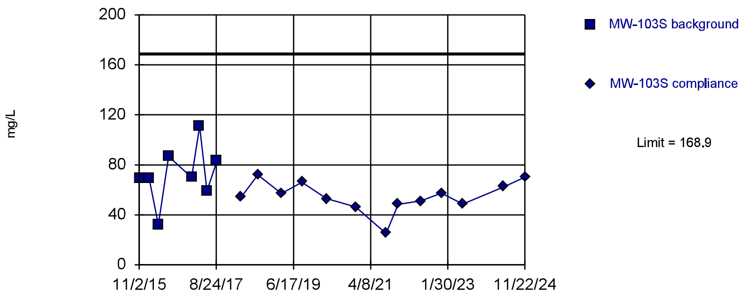
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=72.57, Std. Dev.=22.82, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9555, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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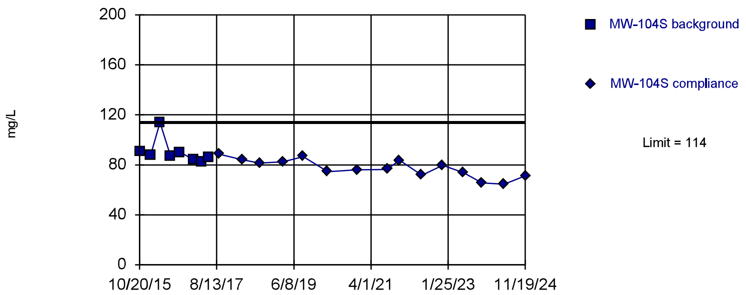
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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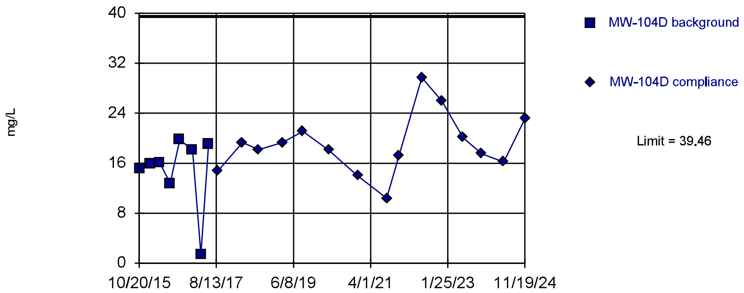
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.78, Std. Dev.=5.85, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7743, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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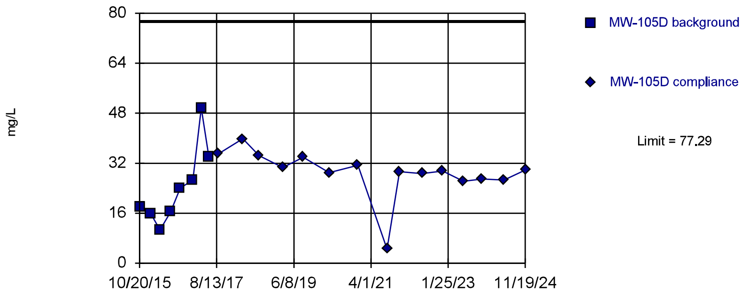
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.44, Std. Dev.=12.53, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8989, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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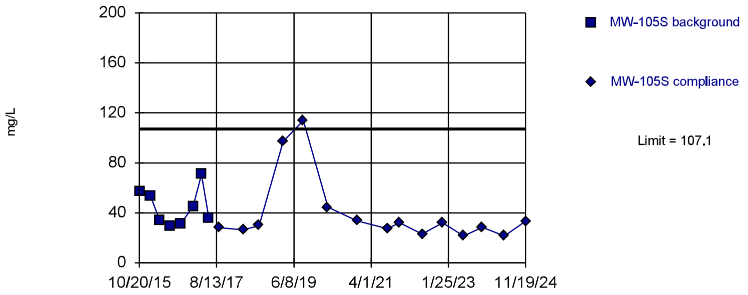
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=44.65, Std. Dev.=14.79, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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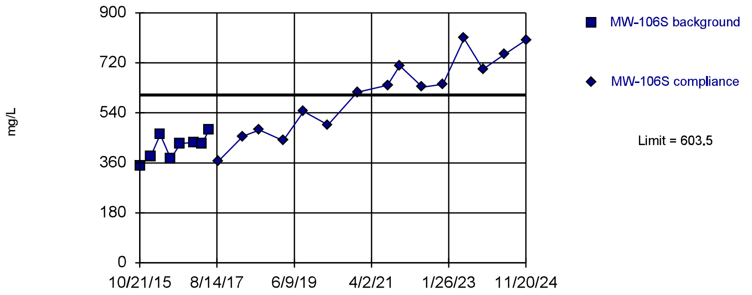
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=417.6, Std. Dev.=44.04, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9521, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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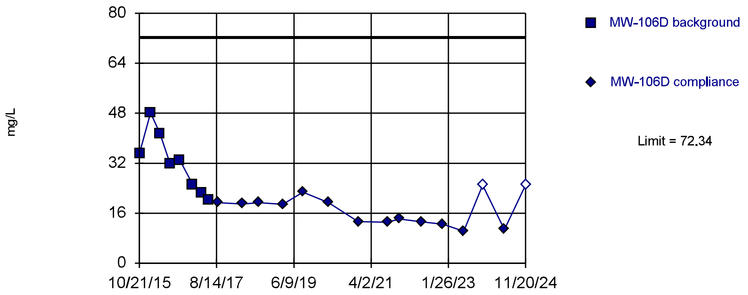
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=32.2, Std. Dev.=9.512, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9589, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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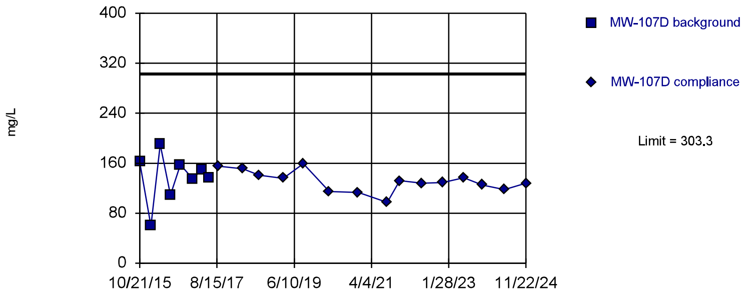
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=137.5, Std. Dev.=39.29, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9332, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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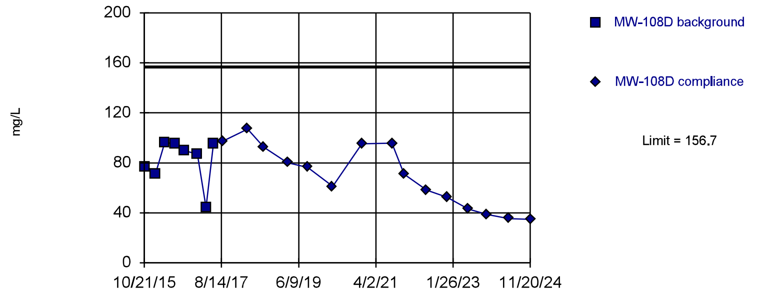
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=82.04, Std. Dev.=17.7, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.818, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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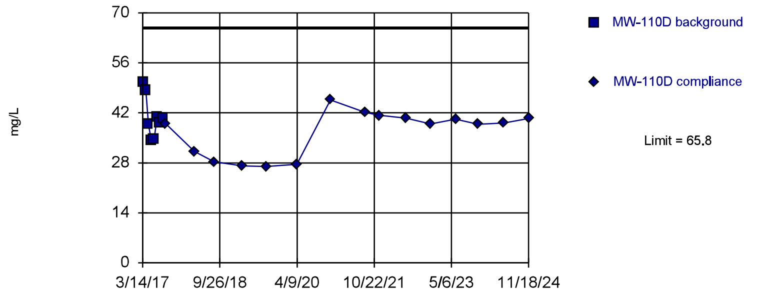
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=40.95, Std. Dev.=5.889, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.888, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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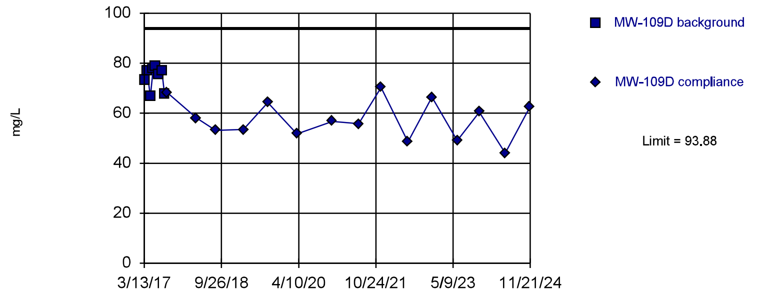
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=74.29, Std. Dev.=4.641, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8368, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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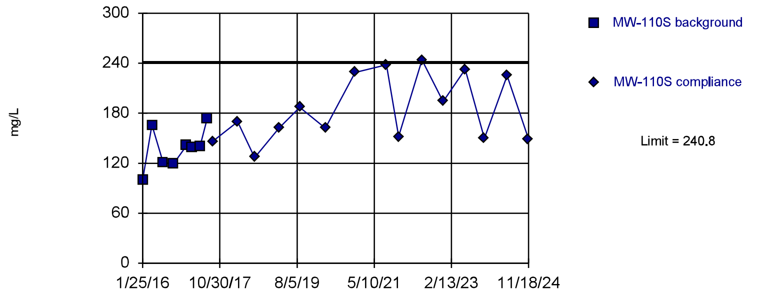
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=137.5, Std. Dev.=24.48, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9542, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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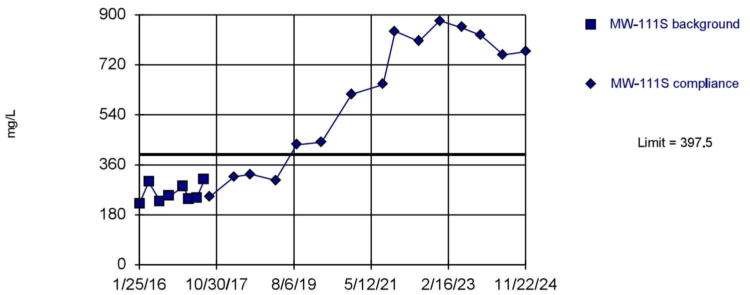
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=257.8, Std. Dev.=33.11, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8865, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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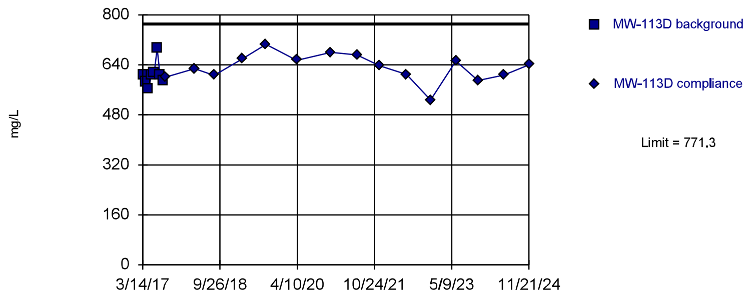
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=609, Std. Dev.=38.47, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8252, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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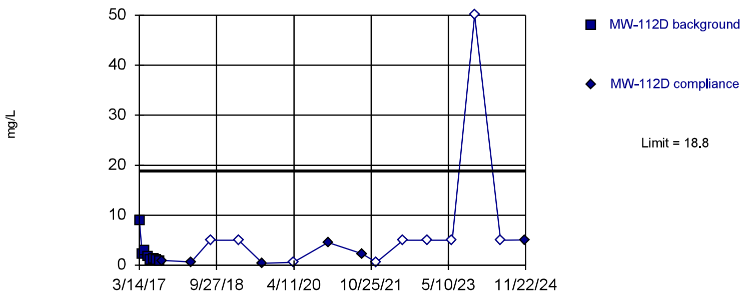
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=1.44, Std. Dev.=0.6861, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7639, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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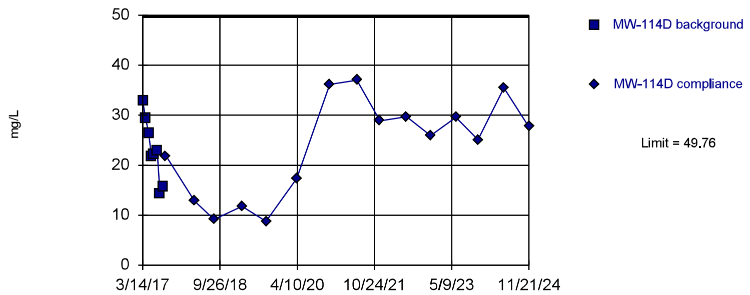
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.19, Std. Dev.=6.296, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9629, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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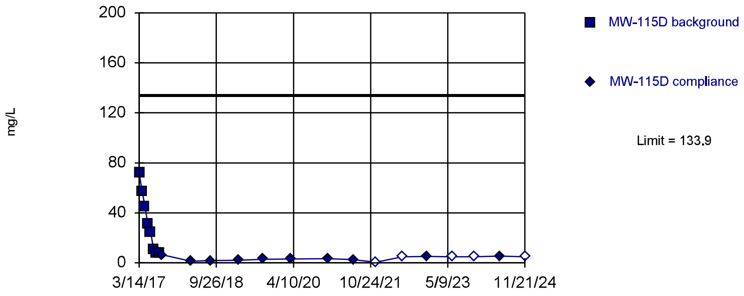
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=32.16, Std. Dev.=24.12, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9039, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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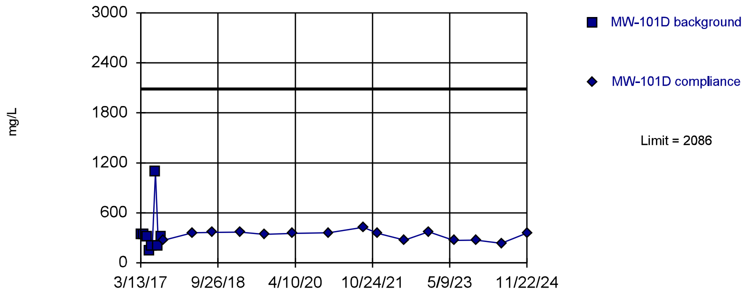
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=18.23, Std. Dev.=6.503, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7503, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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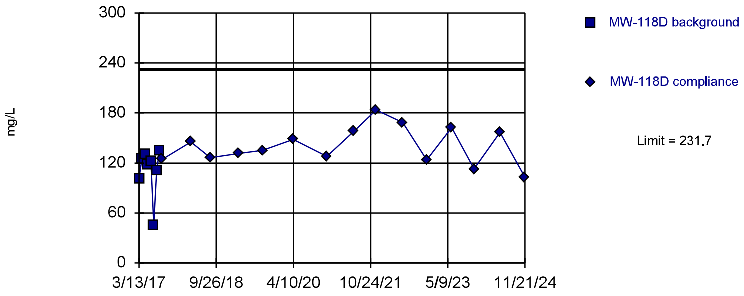
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=111.1, Std. Dev.=28.58, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7673, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: Sulfate Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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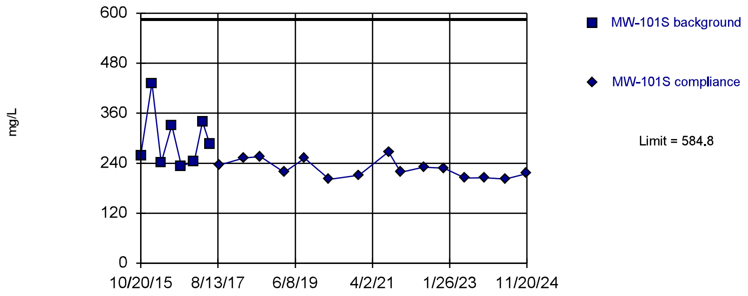
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=295.9, Std. Dev.=68.46, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.859, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM
Independence Plant Data: White Bluff Landfill CCR Data 2024

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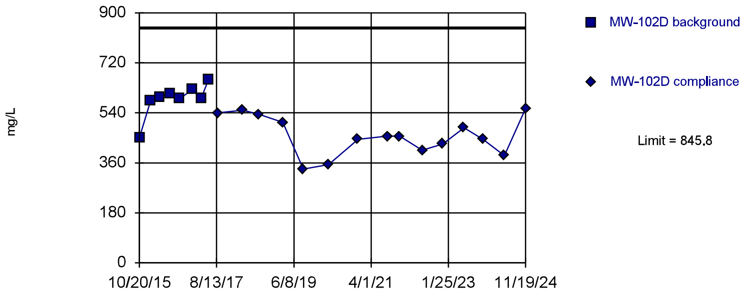
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=588.9, Std. Dev.=60.89, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7906, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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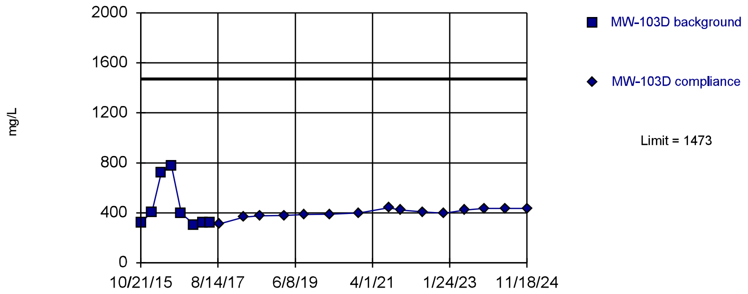
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=20.78, Std. Dev.=4.17, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7517, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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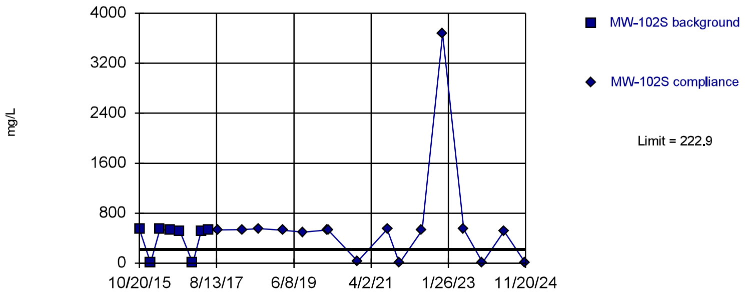
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=2.0e11, Std. Dev.=8.2e10, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7782, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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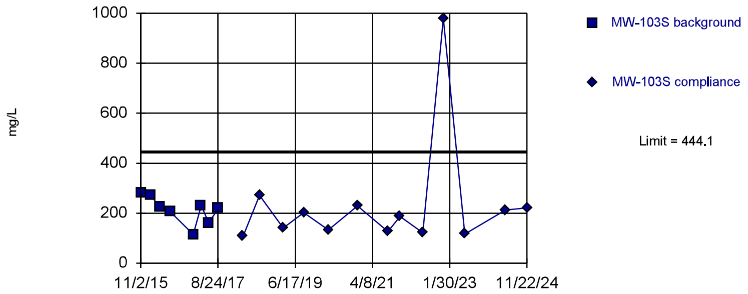
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=213.8, Std. Dev.=54.58, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9424, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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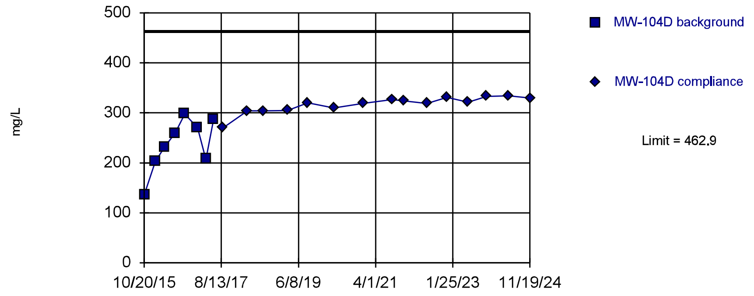
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=236.6, Std. Dev.=53.61, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9352, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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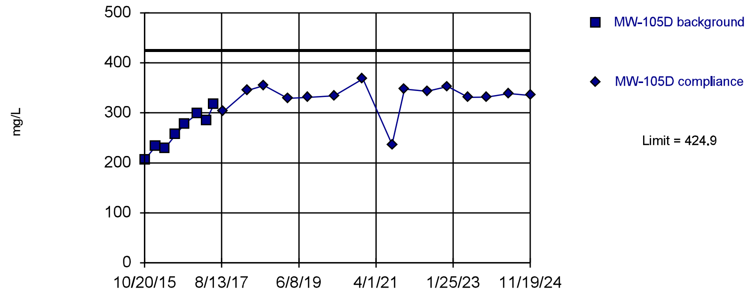
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=263, Std. Dev.=38.37, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9641, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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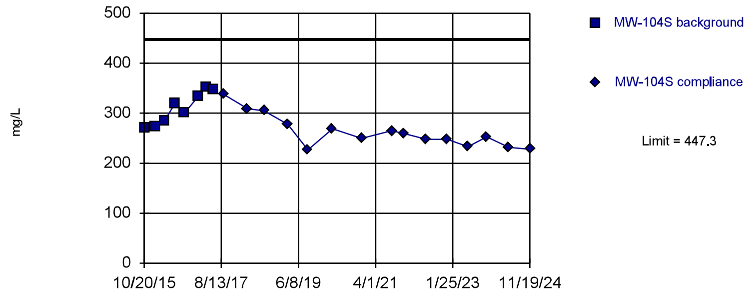
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=310.9, Std. Dev.=32.32, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9126, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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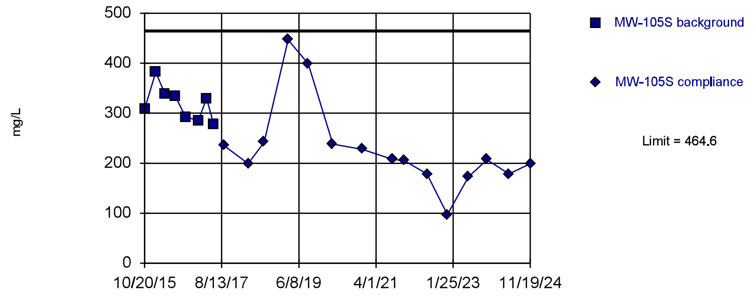
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=318.4, Std. Dev.=34.64, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9396, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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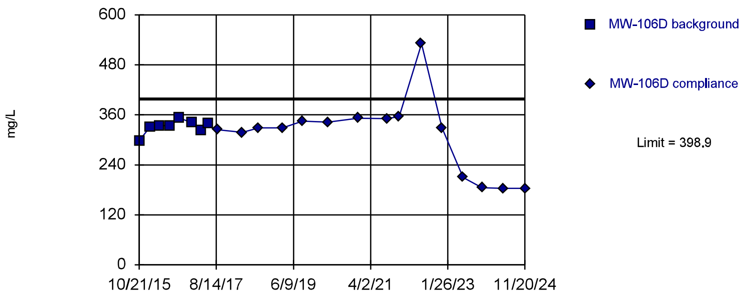
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=331.3, Std. Dev.=16.02, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8926, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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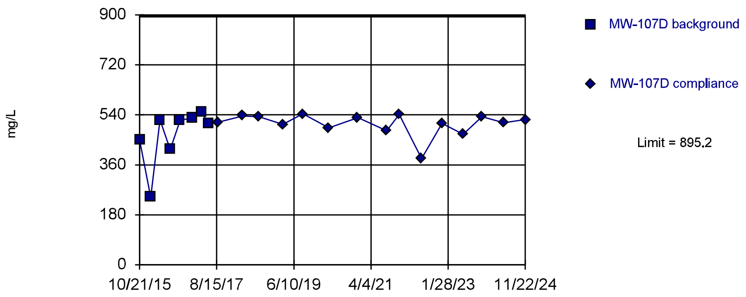
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=467.8, Std. Dev.=101.3, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.772, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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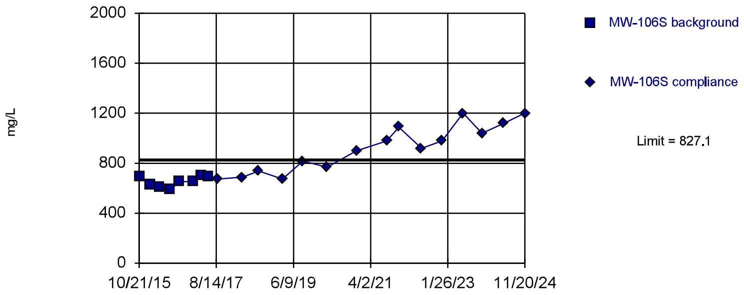
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=651.5, Std. Dev.=41.61, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9154, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:32 PM

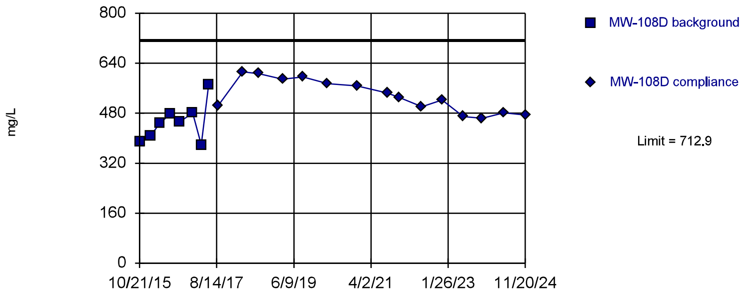
Independence Plant Data: White Bluff Landfill CCR Data 2024

Sanitas™ v.10.0.10 Software licensed to TRC. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=451, Std. Dev.=62.06, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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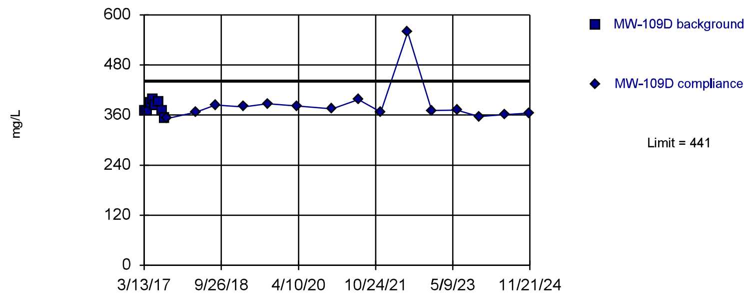
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=378, Std. Dev.=14.93, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9316, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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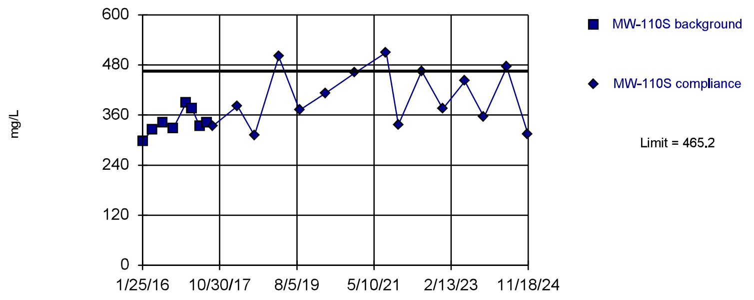
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=341.5, Std. Dev.=29.32, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9482, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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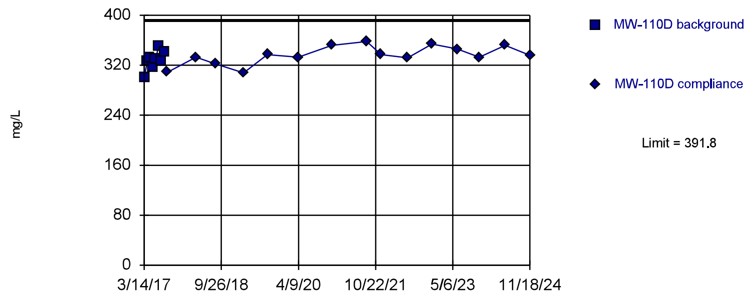
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=328.5, Std. Dev.=15, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9611, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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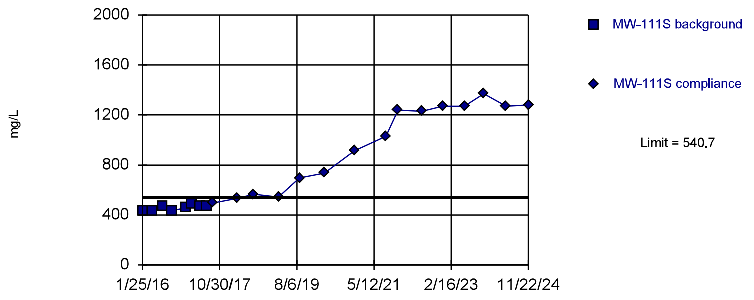
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=457.4, Std. Dev.=19.76, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.878, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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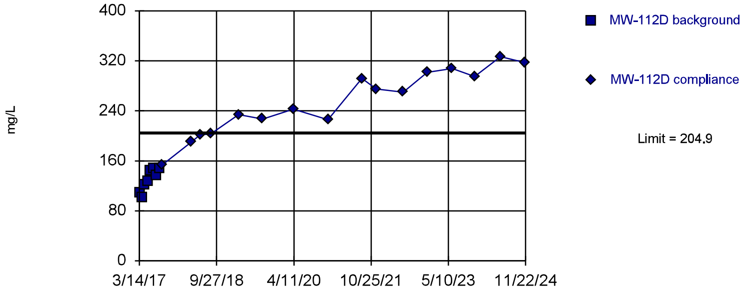
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=129.4, Std. Dev.=17.9, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9002, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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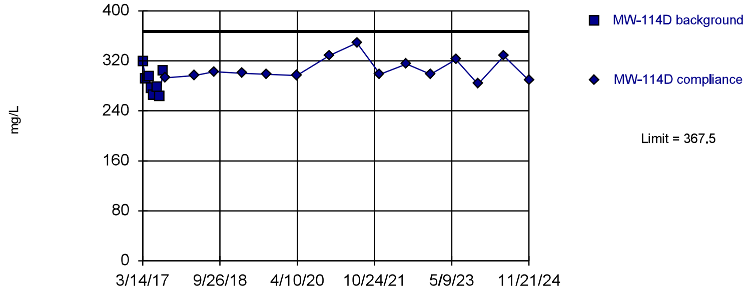
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=286.7, Std. Dev.=19.14, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9491, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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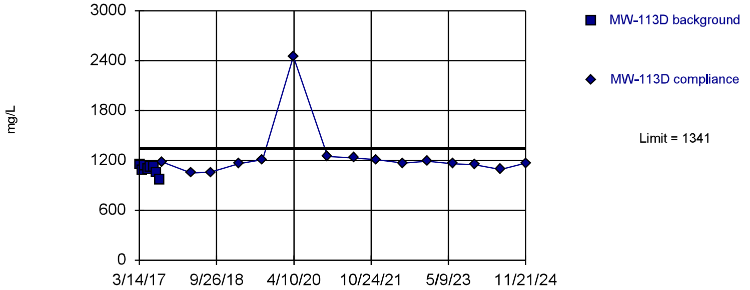
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1096, Std. Dev.=58.08, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8566, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

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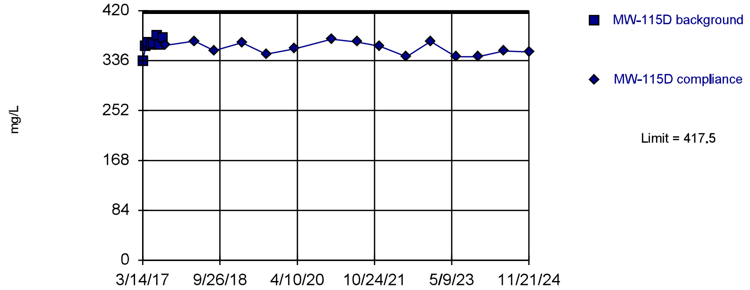
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=362.6, Std. Dev.=13, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8335, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

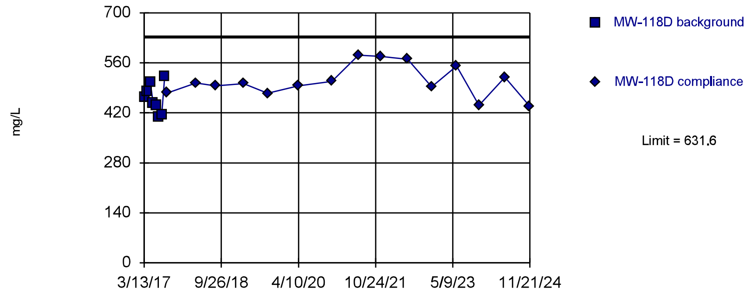
Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=460.5, Std. Dev.=40.54, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.749. Kappa = 4.22 (c=20, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.0001549.

Constituent: TDS Analysis Run 3/26/2025 4:33 PM

Independence Plant Data: White Bluff Landfill CCR Data 2024

APPENDIX 4

Analytical Results

ANALYTICAL REPORT

December 11, 2024

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

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1803484
Samples Received:	11/23/2024
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-101S L1803484-01 GW

Collected by	Collected date/time	Received date/time
	11/20/24 16:25	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/29/24 23:35	11/29/24 23:35	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:01	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 17:41	UNP	Mt. Juliet, TN

MW-102S L1803484-02 GW

Collected by	Collected date/time	Received date/time
	11/20/24 10:40	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/29/24 23:47	11/29/24 23:47	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:03	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 17:44	UNP	Mt. Juliet, TN

MW-104S L1803484-03 GW

Collected by	Collected date/time	Received date/time
	11/19/24 13:00	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 00:00	11/30/24 00:00	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:05	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:02	UNP	Mt. Juliet, TN

MW-105S L1803484-04 GW

Collected by	Collected date/time	Received date/time
	11/19/24 11:30	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 00:13	11/30/24 00:13	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:07	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:05	UNP	Mt. Juliet, TN

MW-106S L1803484-05 GW

Collected by	Collected date/time	Received date/time
	11/20/24 12:00	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	10	11/30/24 00:26	11/30/24 00:26	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:12	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:09	UNP	Mt. Juliet, TN

MW-110S L1803484-06 GW

Collected by	Collected date/time	Received date/time
	11/18/24 16:10	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 00:38	11/30/24 00:38	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:14	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:12	UNP	Mt. Juliet, TN

SAMPLE SUMMARY

MW-102D L1803484-07 GW

Collected by	Collected date/time	Received date/time
	11/19/24 16:05	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 00:51	11/30/24 00:51	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:15	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:15	UNP	Mt. Juliet, TN

MW-103D L1803484-08 GW

Collected by	Collected date/time	Received date/time
	11/18/24 13:05	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 01:04	11/30/24 01:04	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:17	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411326	1	12/05/24 02:38	12/06/24 18:18	UNP	Mt. Juliet, TN

MW-104D L1803484-09 GW

Collected by	Collected date/time	Received date/time
	11/19/24 14:05	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 01:17	11/30/24 01:17	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:19	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:16	JPD	Mt. Juliet, TN

MW-105D L1803484-10 GW

Collected by	Collected date/time	Received date/time
	11/19/24 10:20	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 01:29	11/30/24 01:29	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:21	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:19	JPD	Mt. Juliet, TN

MW-106D L1803484-11 GW

Collected by	Collected date/time	Received date/time
	11/20/24 13:30	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	10	11/30/24 02:08	11/30/24 02:08	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:23	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:23	JPD	Mt. Juliet, TN

MW-108D L1803484-12 GW

Collected by	Collected date/time	Received date/time
	11/20/24 15:00	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 02:20	11/30/24 02:20	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:24	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:26	JPD	Mt. Juliet, TN

SAMPLE SUMMARY

MW-109D L1803484-13 GW

Collected by	Collected date/time	Received date/time
	11/21/24 16:00	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 02:33	11/30/24 02:33	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:26	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:04	JPD	Mt. Juliet, TN

MW-110D L1803484-14 GW

Collected by	Collected date/time	Received date/time
	11/18/24 14:55	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 02:46	11/30/24 02:46	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:28	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:35	JPD	Mt. Juliet, TN

MW-113D L1803484-15 GW

Collected by	Collected date/time	Received date/time
	11/21/24 13:15	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	10	11/30/24 02:58	11/30/24 02:58	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:33	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:38	JPD	Mt. Juliet, TN

MW-114D L1803484-16 GW

Collected by	Collected date/time	Received date/time
	11/21/24 10:30	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 03:11	11/30/24 03:11	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:35	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:41	JPD	Mt. Juliet, TN

MW-115D L1803484-17 GW

Collected by	Collected date/time	Received date/time
	11/21/24 14:40	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 03:24	11/30/24 03:24	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:37	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:45	JPD	Mt. Juliet, TN

MW-118D L1803484-18 GW

Collected by	Collected date/time	Received date/time
	11/21/24 11:50	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	1	11/30/24 03:37	11/30/24 03:37	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/04/24 23:54	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:48	JPD	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
DUPLICATE 1 L1803484-19 GW		11/20/24 12:00	11/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2408035	1	11/25/24 12:17	11/25/24 14:41	DLS	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2407625	10	11/30/24 03:49	11/30/24 03:49	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411307	1	12/04/24 11:15	12/05/24 00:39	DJS	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411327	1	12/05/24 02:40	12/06/24 04:51	JPD	Mt. Juliet, TN

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

Brittnie Boyd

Brittnie L Boyd
Project Manager

MW-101S

Collected date/time: 11/20/24 16:25

SAMPLE RESULTS - 01

L1803484

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	204		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.02		1.00	1	11/29/2024 23:35	WG2407625
Fluoride	ND	P1	0.150	1	11/29/2024 23:35	WG2407625
Sulfate	50.8	J6	5.00	1	11/29/2024 23:35	WG2407625

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/05/2024 00:01	WG2411307

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	15.4		1.00	1	12/06/2024 17:41	WG2411326

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	195		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.19		1.00	1	11/29/2024 23:47	WG2407625
Fluoride	ND		0.150	1	11/29/2024 23:47	WG2407625
Sulfate	27.5		5.00	1	11/29/2024 23:47	WG2407625

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/05/2024 00:03	WG2411307

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	15.6		1.00	1	12/06/2024 17:44	WG2411326

MW-104S

Collected date/time: 11/19/24 13:00

SAMPLE RESULTS - 03

L1803484

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

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	228		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	3.95		1.00	1	11/30/2024 00:00	WG2407625
Fluoride	ND		0.150	1	11/30/2024 00:00	WG2407625
Sulfate	71.1		5.00	1	11/30/2024 00:00	WG2407625

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.743		0.200	1	12/05/2024 00:05	WG2411307

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	15.9		1.00	1	12/06/2024 18:02	WG2411326

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	199		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	4.90		1.00	1	11/30/2024 00:13	WG2407625
Fluoride	ND		0.150	1	11/30/2024 00:13	WG2407625
Sulfate	33.4		5.00	1	11/30/2024 00:13	WG2407625

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	ND		0.200	1	12/05/2024 00:07	WG2411307

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	17.9		1.00	1	12/06/2024 18:05	WG2411326

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1200		20.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	11.9		10.0	10	11/30/2024 00:26	WG2407625
Fluoride	ND		1.50	10	11/30/2024 00:26	WG2407625
Sulfate	802		50.0	10	11/30/2024 00:26	WG2407625

Sample Narrative:

L1803484-05 WG2407625: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	6.84		0.200	1	12/05/2024 00:12	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	41.7		1.00	1	12/06/2024 18:09	WG2411326

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	313		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	2.88		1.00	1	11/30/2024 00:38	WG2407625
Fluoride	ND		0.150	1	11/30/2024 00:38	WG2407625
Sulfate	149		5.00	1	11/30/2024 00:38	WG2407625

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	1.32		0.200	1	12/05/2024 00:14	WG2411307

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	5.23		1.00	1	12/06/2024 18:12	WG2411326

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	556		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.47		1.00	1	11/30/2024 00:51	WG2407625
Fluoride	ND		0.150	1	11/30/2024 00:51	WG2407625
Sulfate	25.3		5.00	1	11/30/2024 00:51	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.269		0.200	1	12/05/2024 00:15	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	76.6		1.00	1	12/06/2024 18:15	WG2411326

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	435		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.17		1.00	1	11/30/2024 01:04	WG2407625
Fluoride	0.217	B	0.150	1	11/30/2024 01:04	WG2407625
Sulfate	98.3		5.00	1	11/30/2024 01:04	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.218		0.200	1	12/05/2024 00:17	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	42.9		1.00	1	12/06/2024 18:18	WG2411326

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	330		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.82		1.00	1	11/30/2024 01:17	WG2407625
Fluoride	ND		0.150	1	11/30/2024 01:17	WG2407625
Sulfate	23.1		5.00	1	11/30/2024 01:17	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.235		0.200	1	12/05/2024 00:19	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	58.3		1.00	1	12/06/2024 04:16	WG2411327

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	335		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.86		1.00	1	11/30/2024 01:29	WG2407625
Fluoride	ND		0.150	1	11/30/2024 01:29	WG2407625
Sulfate	29.8		5.00	1	11/30/2024 01:29	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.271		0.200	1	12/05/2024 00:21	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	56.3		1.00	1	12/06/2024 04:19	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	184		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	10	11/30/2024 02:08	WG2407625
Fluoride	ND		1.50	10	11/30/2024 02:08	WG2407625
Sulfate	ND		50.0	10	11/30/2024 02:08	WG2407625

Sample Narrative:

L1803484-11 WG2407625: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.242		0.200	1	12/05/2024 00:23	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	28.1		1.00	1	12/06/2024 04:23	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	475		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	12.0		1.00	1	11/30/2024 02:20	WG2407625
Fluoride	ND		0.150	1	11/30/2024 02:20	WG2407625
Sulfate	34.9		5.00	1	11/30/2024 02:20	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.327		0.200	1	12/05/2024 00:24	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	67.8		1.00	1	12/06/2024 04:26	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	365		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.04		1.00	1	11/30/2024 02:33	WG2407625
Fluoride	ND		0.150	1	11/30/2024 02:33	WG2407625
Sulfate	45.9		5.00	1	11/30/2024 02:33	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.305		0.200	1	12/05/2024 00:26	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	50.2		1.00	1	12/06/2024 04:04	WG2411327

SAMPLE RESULTS - 14

L1803484

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	336		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.26		1.00	1	11/30/2024 02:46	WG2407625
Fluoride	ND		0.150	1	11/30/2024 02:46	WG2407625
Sulfate	40.4		5.00	1	11/30/2024 02:46	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.300		0.200	1	12/05/2024 00:28	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	47.4		1.00	1	12/06/2024 04:35	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1170		20.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	11.9		10.0	10	11/30/2024 02:58	WG2407625
Fluoride	ND		1.50	10	11/30/2024 02:58	WG2407625
Sulfate	640		50.0	10	11/30/2024 02:58	WG2407625

Sample Narrative:

L1803484-15 WG2407625: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.483		0.200	1	12/05/2024 00:33	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	202		1.00	1	12/06/2024 04:38	WG2411327

MW-114D

Collected date/time: 11/21/24 10:30

SAMPLE RESULTS - 16

L1803484

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	321		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.17		1.00	1	11/30/2024 03:11	WG2407625
Fluoride	ND		0.150	1	11/30/2024 03:11	WG2407625
Sulfate	27.7		5.00	1	11/30/2024 03:11	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.270		0.200	1	12/05/2024 00:35	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	54.5		1.00	1	12/06/2024 04:41	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	333		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.20		1.00	1	11/30/2024 03:24	WG2407625
Fluoride	ND		0.150	1	11/30/2024 03:24	WG2407625
Sulfate	ND		5.00	1	11/30/2024 03:24	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.329		0.200	1	12/05/2024 00:37	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	44.8		1.00	1	12/06/2024 04:45	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	502		10.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.17		1.00	1	11/30/2024 03:37	WG2407625
Fluoride	ND		0.150	1	11/30/2024 03:37	WG2407625
Sulfate	141		5.00	1	11/30/2024 03:37	WG2407625

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.274		0.200	1	12/04/2024 23:54	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	86.0		1.00	1	12/06/2024 04:48	WG2411327

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1200		20.0	1	11/25/2024 14:41	WG2408035

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	12.0		10.0	10	11/30/2024 03:49	WG2407625
Fluoride	ND		1.50	10	11/30/2024 03:49	WG2407625
Sulfate	813		50.0	10	11/30/2024 03:49	WG2407625

Sample Narrative:

L1803484-19 WG2407625: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	6.97		0.200	1	12/05/2024 00:39	WG2411307

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	43.2		1.00	1	12/06/2024 04:51	WG2411327

Method Blank (MB)

(MB) R4151535-1 11/25/24 14:41

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

L1803278-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803278-01 11/25/24 14:41 • (DUP) R4151535-3 11/25/24 14:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	373	376	1	0.801		10

L1803484-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1803484-19 11/25/24 14:41 • (DUP) R4151535-4 11/25/24 14:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1200	1220	1	1.32		10

Laboratory Control Sample (LCS)

(LCS) R4151535-2 11/25/24 14:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8710	99.0	85.0-115	

Method Blank (MB)

(MB) R4152117-1 11/29/24 23:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	0.0784	J	0.0761	0.150
Sulfate	U		0.637	5.00

L1803484-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803484-01 11/29/24 23:35 • (DUP) R4152117-3 11/30/24 05:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.02	6.88	1	2.07		15
Fluoride	ND	ND	1	200	P1	15
Sulfate	50.8	51.1	1	0.542		15

L1803484-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1803484-02 11/29/24 23:47 • (DUP) R4152117-6 11/30/24 06:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.19	7.08	1	1.66		15
Fluoride	ND	ND	1	11.1		15
Sulfate	27.5	26.7	1	2.89		15

Laboratory Control Sample (LCS)

(LCS) R4152117-2 11/29/24 23:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	37.0	92.4	80.0-120	
Fluoride	8.00	7.43	92.9	80.0-120	
Sulfate	40.0	37.5	93.8	80.0-120	

L1803484-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803484-01 11/29/24 23:35 • (MS) R4152117-4 11/30/24 05:57 • (MSD) R4152117-5 11/30/24 06:09

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	40.0	7.02	45.4	45.5	96.1	96.2	1	80.0-120			0.117	15
Fluoride	8.00	ND	8.12	8.10	102	101	1	80.0-120			0.301	15
Sulfate	40.0	50.8	82.2	81.7	78.4	77.3	1	80.0-120	J6	J6	0.516	15

L1803484-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1803484-02 11/29/24 23:47 • (MS) R4152117-7 11/30/24 06:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	7.19	45.3	95.3	1	80.0-120	
Fluoride	8.00	ND	8.07	99.5	1	80.0-120	
Sulfate	40.0	27.5	62.9	88.4	1	80.0-120	

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R4153817-1 12/04/24 23:51

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

Laboratory Control Sample (LCS)

(LCS) R4153817-2 12/04/24 23:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Boron	1.00	0.951	95.1	80.0-120	

L1803484-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803484-18 12/04/24 23:54 • (MS) R4153817-4 12/04/24 23:58 • (MSD) R4153817-5 12/05/24 00:00

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	1.00	0.274	1.22	1.22	94.8	95.0	1	75.0-125			0.164	20

Method Blank (MB)

(MB) R4154837-1 12/06/24 16:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4154837-2 12/06/24 16:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.32	106	80.0-120	

L1803478-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803478-11 12/06/24 16:45 • (MS) R4154837-4 12/06/24 16:51 • (MSD) R4154837-5 12/06/24 16:54

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	ND	5.22	5.16	104	103	1	75.0-125			1.09	20

Method Blank (MB)

(MB) R4154551-1 12/06/24 03:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4154551-2 12/06/24 04:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.27	105	80.0-120	

L1803484-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1803484-13 12/06/24 04:04 • (MS) R4154551-4 12/06/24 04:10 • (MSD) R4154551-5 12/06/24 04:13

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 %
Calcium	5.00	50.2	55.0	54.6	96.5	87.3	1	75.0-125			0.836	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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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	LAO00356
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.

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Report to:
Jonathan Brown

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected:

Please Circle:
PT MT CT ET

Phone: **501-847-7077**

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

Collected by (print):

Site/Facility ID #
CADL - CCR

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately
Packed on Ice N ___ Y ✓

Chain of Custody Page ___ of ___

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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1803484
H207

Table #

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1112374**
PM: **829 - Brittnie L Boyd**
PB: 11/11/24 BK
Shipped Via: **FedEX Priority**

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
MW-101S	G	GW		10/20/24	1625	3	✓	✓	✓								5.76	-01
MW-102S	G	GW		11/20/24	1040	3	✓	✓	-								5.87	-02
~~MW-103S~~		GW																
MW-104S	G	GW		11/19/24	1300	3	-	-	-								5.20	-03
MW-105S	G	GW		11/19/24	1130	3	-	-	-								5.81	-04
MW-106S	G	GW		11/20/24	1200	3	-	-	-								4.12	-05
MW-110S	G	GW		11/18/24	1610	3	-	-	-								4.78	-04
~~MW-111S~~		GW																
~~MW-101D~~		GW																
MW-102D	G	GW		11/19/24	1605	3	-	-	-								7.33	-07

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # Multi

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: 11/22/24	Time: 1100	Received by: (Signature)	Trip Blank Received: Yes / [✓ No] HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Multi °C Bottles Received: 57	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Easton Oram	Date: 11/23/24 Time: 0900	Hold: Condition: NCF / OK

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:
https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to:
Jonathan Brown

Email To:
Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description:
Entergy - White Bluff

City/State Collected:

Please Circle:
PT MT CT ET

Phone: **501-847-7077**

Client Project #
1145-21-080

Lab Project #
GBMCBAR-ENTERGYWB

SDG # L1803884

Table #

Acctnum: GBMCBAR
Template:T198831
Prelogin: P1112374
PM: 829 - Brittnie L Boyd
PB: 11/11/24 BK
Shipped Via: FedEX Priority

Collected by (print):

Site/Facility ID #
CADL - CCR

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks	Sample # (lab only)
MW-103D	G	GW	-	11/18/24	1305	3	-	-	-	7.69	-08
MW-104D	G	GW	-	11/19/24	1405	3	-	-	-	7.37	-09
MW-105D	G	GW	-	11/19/24	1020	3	-	-	-	7.50	-10
MW-106D	G	GW	-	11/20/24	1330	3	-	-	-	10.59	-11
~~MW-107D~~		GW									
MW-108D	G	GW	-	11/20/24	1500	3	-	-	-	7.35	-12
MW-109D	G	GW	-	11/21/24	1600	3	-	-	-	7.37	-13
MW-110D	G	GW	-	11/19/24	1455	3	-	-	-	7.53	-14
~~MW-112D~~		GW									
MW-113D	G	GW	-	11/21/24	1315	3	-	-	-	6.75	-15

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	11/22/24	1100			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Easton Orm	Date: 11/23/24 Time: 0900	Hold: Condition: NCF / OK

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Chain of Custody Page ___ of ___

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Jonathan Brown**

Email To: **Jonathan.Brown@AllianceTG.com;Jhouse@trcc**

Project Description: **Entergy - White Bluff**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **501-847-7077**

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

SDG # L1803484

Table #

Collected by (print):

Site/Facility ID # **CADL - CCR**

P.O. #

Acctnum: GBMCBAR
Template:T198831
Prelogin: P1112374
PM: 829 - Brittnie L Boyd
PB: 11/11/24 BK
Shipped Via: **FedEX Priority**

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
MW-114D	G	GW		11/21/24	1030	3	-	-	-								7.38	-16
MW-115D	G	GW		11/21/24	1440	3	-	-	-								7.45	-12
MW-118D	G	GW		11/21/24	1150	3	-	-	-								7.16	-8
~~FIELD BLANK~~ 1		GW																
DUPLICATE 1 1065	G	GW		11/20/24	1200	3	-	-	-								4.12	[illegible]
~~FIELD BLANK~~ 2		GW																
~~DUPLICATE 2*~~		GW																
		GW																
		GW																
		GW																

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ______

Tracking #

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

Relinquished by : (Signature)	Date: 11/22/24	Time: 1100	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Easton	Date: 11/23/24 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Fed Ex tracking #	Gun ID	Temperature
7464 0843 7354	TLA9	3.1+0 = 3.1
7464 0843 7365	TLA9	1.0+0 = 1.0
7464 0843 7376	TLA9	2.3+0=2.3

Easton Organ
Name

11/23/24
Date

L1803484

ANALYTICAL REPORT

December 11, 2024

Alliance Technical Group - Bryant, AR

Sample Delivery Group:	L1804133
Samples Received:	11/26/2024
Project Number:	1145-21-080
Description:	Entergy - White Bluff
Site:	CADL - CCR
Report To:	Jonathan Brown 219 Brown Lane Little Rock, AR 72022

Entire Report Reviewed By: Brittnie Boyd

Brittnie L Boyd
Project Manager

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-103S L1804133-01 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 15:30	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	5	11/30/24 22:13	11/30/24 22:13	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:22	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 22:03	UNP	Mt. Juliet, TN

MW-101D L1804133-02 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 13:15	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	1	11/30/24 22:48	11/30/24 22:48	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:24	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:17	UNP	Mt. Juliet, TN

MW-111S L1804133-03 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 09:55	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	100	11/30/24 23:05	11/30/24 23:05	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:26	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:20	UNP	Mt. Juliet, TN

MW-107D L1804133-04 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 11:25	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	1	11/30/24 23:40	11/30/24 23:40	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:27	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:23	UNP	Mt. Juliet, TN

MW-112D L1804133-05 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 14:30	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	1	11/30/24 23:58	11/30/24 23:58	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:29	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:26	UNP	Mt. Juliet, TN

FIELD BLANK 1 L1804133-06 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 13:50	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409502	1	12/01/24 00:15	12/01/24 00:15	ZSA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:31	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:30	UNP	Mt. Juliet, TN

FIELD BLANK 2 L1804133-07 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 13:50	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409507	1	11/30/24 17:23	11/30/24 17:23	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:32	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:33	UNP	Mt. Juliet, TN

DUPLICATE 2 (MW-112D) L1804133-08 GW

Collected by	Collected date/time	Received date/time
JLC/KRS	11/22/24 14:30	11/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2409320	1	11/26/24 21:40	11/27/24 12:07	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2409507	1	11/30/24 17:36	11/30/24 17:36	AJC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2411848	1	12/05/24 08:50	12/05/24 14:34	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2411861	1	12/05/24 12:22	12/05/24 21:36	UNP	Mt. Juliet, TN

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

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.

Brittnie Boyd

Brittnie L Boyd
Project Manager

MW-103S

Collected date/time: 11/22/24 15:30

SAMPLE RESULTS - 01

L1804133

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

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

Analyte	Result	Units
pH (On Site)	4.96	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	221		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	7.59		5.00	5	11/30/2024 22:13	WG2409502
Fluoride	ND		0.750	5	11/30/2024 22:13	WG2409502
Sulfate	92.3		25.0	5	11/30/2024 22:13	WG2409502

Sample Narrative:

L1804133-01 WG2409502: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.608		0.200	1	12/05/2024 14:22	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	10.7		1.00	1	12/05/2024 22:03	WG2411861

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

Analyte	Result	Units
pH (On Site)	6.88	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	382		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.39		1.00	1	11/30/2024 22:48	WG2409502
Fluoride	ND		0.150	1	11/30/2024 22:48	WG2409502
Sulfate	85.7		5.00	1	11/30/2024 22:48	WG2409502

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	12/05/2024 14:24	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	56.3		1.00	1	12/05/2024 21:17	WG2411861

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

Analyte	Result	Units
pH (On Site)	3.92	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1280		20.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		100	100	11/30/2024 23:05	WG2409502
Fluoride	ND		15.0	100	11/30/2024 23:05	WG2409502
Sulfate	768		500	100	11/30/2024 23:05	WG2409502

Sample Narrative:

L1804133-03 WG2409502: Dilution due to matrix impact on instrumentation at lower dilution

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	7.10		0.200	1	12/05/2024 14:26	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	101		1.00	1	12/05/2024 21:20	WG2411861

MW-107D

Collected date/time: 11/22/24 11:25

SAMPLE RESULTS - 04

L1804133

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

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

	Result	Units
Analyte		
pH (On Site)	7.52	su

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	523		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	21.1		1.00	1	11/30/2024 23:40	WG2409502
Fluoride	ND		0.150	1	11/30/2024 23:40	WG2409502
Sulfate	128		5.00	1	11/30/2024 23:40	WG2409502

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.332		0.200	1	12/05/2024 14:27	WG2411848

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	79.3		1.00	1	12/05/2024 21:23	WG2411861

SAMPLE RESULTS - 05

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

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

	Result	Units
Analyte		
pH (On Site)	7.46	su

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Dissolved Solids	317		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Chloride	7.22		1.00	1	11/30/2024 23:58	WG2409502
Fluoride	ND		0.150	1	11/30/2024 23:58	WG2409502
Sulfate	5.08		5.00	1	11/30/2024 23:58	WG2409502

Metals (ICP) by Method 6010B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Boron	0.294		0.200	1	12/05/2024 14:29	WG2411848

Metals (ICPMS) by Method 6020B

	Result	Qualifier	RDL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l		date / time	
Calcium	41.4		1.00	1	12/05/2024 21:26	WG2411861

FIELD BLANK 1

Collected date/time: 11/22/24 13:50

SAMPLE RESULTS - 06

L1804133

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	12/01/2024 00:15	WG2409502
Fluoride	ND		0.150	1	12/01/2024 00:15	WG2409502
Sulfate	ND		5.00	1	12/01/2024 00:15	WG2409502

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	12/05/2024 14:31	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	12/05/2024 21:30	WG2411861

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	ND	P1	1.00	1	11/30/2024 17:23	WG2409507
Fluoride	ND		0.150	1	11/30/2024 17:23	WG2409507
Sulfate	ND		5.00	1	11/30/2024 17:23	WG2409507

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	12/05/2024 14:32	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	ND		1.00	1	12/05/2024 21:33	WG2411861

DUPLICATE 2 (MW-112D)

Collected date/time: 11/22/24 14:30

SAMPLE RESULTS - 08

L1804133

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

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

Analyte	Result	Units
pH (On Site)	7.46	su

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	321		10.0	1	11/27/2024 12:07	WG2409320

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	6.43		1.00	1	11/30/2024 17:36	WG2409507
Fluoride	ND	P1	0.150	1	11/30/2024 17:36	WG2409507
Sulfate	ND		5.00	1	11/30/2024 17:36	WG2409507

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.288		0.200	1	12/05/2024 14:34	WG2411848

Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	41.1		1.00	1	12/05/2024 21:36	WG2411861

Method Blank (MB)

(MB) R4152204-1 11/27/24 12:07

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

L1803945-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803945-01 11/27/24 12:07 • (DUP) R4152204-3 11/27/24 12:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	791	807	1	2.00		10

L1804133-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1804133-08 11/27/24 12:07 • (DUP) R4152204-4 11/27/24 12:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	321	322	1	0.311		10

Laboratory Control Sample (LCS)

(LCS) R4152204-2 11/27/24 12:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8860	101	85.0-115	

Method Blank (MB)

(MB) R4153016-1 11/30/24 14:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1804082-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1804082-01 11/30/24 15:15 • (DUP) R4153016-3 12/01/24 00:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	43.1	43.9	1	1.74		15
Fluoride	ND	ND	1	4.53		15
Sulfate	71.5	71.5	1	0.106		15

L1804082-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1804082-02 11/30/24 15:33 • (DUP) R4153016-6 12/01/24 01:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.93	7.78	1	1.89		15
Fluoride	ND	ND	1	3.05		15
Sulfate	15.5	15.3	1	0.797		15

Laboratory Control Sample (LCS)

(LCS) R4153016-2 11/30/24 14:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.6	96.6	80.0-120	
Fluoride	8.00	8.05	101	80.0-120	
Sulfate	40.0	39.3	98.3	80.0-120	

L1804082-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1804082-01 11/30/24 15:15 • (MS) R4153016-4 12/01/24 00:50 • (MSD) R4153016-5 12/01/24 01:07

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	40.0	43.1	74.2	74.5	77.5	78.4	1	80.0-120	J6	J6	0.496	15
Fluoride	8.00	ND	8.26	8.30	102	103	1	80.0-120			0.470	15
Sulfate	40.0	71.5	97.6	97.9	65.0	65.9	1	80.0-120	J6	J6	0.357	15

L1804082-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1804082-02 11/30/24 15:33 • (MS) R4153016-7 12/01/24 01:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	7.93	45.6	94.2	1	80.0-120	
Fluoride	8.00	ND	8.35	103	1	80.0-120	
Sulfate	40.0	15.5	52.8	93.3	1	80.0-120	

Method Blank (MB)

(MB) R4153173-1 11/30/24 16:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1804133-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1804133-07 11/30/24 17:23 • (DUP) R4153173-3 12/01/24 00:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	ND	ND	1	200	P1	15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1804133-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1804133-08 11/30/24 17:36 • (DUP) R4153173-6 12/01/24 00:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6.43	6.23	1	3.28		15
Fluoride	ND	ND	1	16.1	P1	15
Sulfate	ND	ND	1	2.14		15

Laboratory Control Sample (LCS)

(LCS) R4153173-2 11/30/24 17:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	42.7	107	80.0-120	
Fluoride	8.00	8.76	109	80.0-120	
Sulfate	40.0	43.6	109	80.0-120	

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

L1804133-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1804133-07 11/30/24 17:23 • (MS) R4153173-4 12/01/24 00:25 • (MSD) R4153173-5 12/01/24 00:38

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	40.0	ND	40.6	40.0	100	98.7	1	80.0-120			1.37	15
Fluoride	8.00	ND	8.23	8.15	103	102	1	80.0-120			0.968	15
Sulfate	40.0	ND	41.1	40.7	103	102	1	80.0-120			0.965	15

L1804133-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1804133-08 11/30/24 17:36 • (MS) R4153173-7 12/01/24 01:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	6.43	47.3	102	1	80.0-120	
Fluoride	8.00	ND	8.61	106	1	80.0-120	
Sulfate	40.0	ND	46.6	105	1	80.0-120	

QUALITY CONTROL SUMMARY

L1804133-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R4154238-1 12/05/24 14:00

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) R4154238-2 12/05/24 14:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.996	99.6	80.0-120	

L1804042-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1804042-01 12/05/24 14:04 • (MS) R4154238-4 12/05/24 14:07 • (MSD) R4154238-5 12/05/24 14:09

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	1.09	1.07	102	99.9	1	75.0-125			2.27	20

Method Blank (MB)

(MB) R4154341-1 12/05/24 20:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.0925	1.00

Laboratory Control Sample (LCS)

(LCS) R4154341-2 12/05/24 20:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	4.90	98.0	80.0-120	

L1804103-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1804103-01 12/05/24 20:44 • (MS) R4154341-4 12/05/24 20:50 • (MSD) R4154341-5 12/05/24 20:53

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	162	167	166	105	90.0	1	75.0-125			0.453	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
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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	LAO00356
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.

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk ✓

Chain of Custody Page ___ of ___

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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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~~L1803945~~

SDG # **D011** L1804133
60 11-27-24

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1112374**
PM: **829 - Brittnie L Boyd**
PB:
Shipped Via: **FedEX Priority**

Report to: **Jonathan Brown**

Email To: Jonathan.Brown@AllianceTG.com;Jhouse@trcc

Project Description: **Entergy - White Bluff**

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Phone: **501-847-7077**

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

Collected by (print): JLC/KRS

Site/Facility ID # **CADL - CCR**

P.O. #

Collected by (signature): Jared Colbert

Immediately Packed on Ice N ____ Y ✓

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks pH	Sample # (lab only)
MW-101S		GW									
MW-102S		GW									
MW-103S	G	GW		11-22-24	1530	3	X	X	X	4.96	-01
MW-104S		GW									
MW-105S		GW									
MW-106S		GW									
MW-110S		GW									
~~MW-111S~~ MW-101D	G	GW		11-22-24	1315	3	X	X	X	6.88	-02
~~MW-101D~~ MW-111S	G	GW		11-22-24	0955	3	X	X	X	3.92	-03
MW-102D		GW									

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 4212 6475 4531

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) Jared Colbert
Date: 11-25-24
Time: 1130
Received by: (Signature)

Trip Blank Received: Yes / [✓ No]
HCL / MeoH
TBR
0

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Temp: 3.4 t0=3.4 °C
Bottles Received: 25

If pr... /Time
PH -- 10BDH0941
TRC -- 3327A333

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)
Date: 11-26-24
Time: 0980
Hold:
Condition: NCF / OK

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Jonathan Brown**

Email To: **Jonathan.Brown@AllianceTG.com;Jhouse@trcc**

Project Description: **Entergy - White Bluff**

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Phone: **501-847-7077**

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

SDG # ~~L1807995~~

Table # L1804133 SP 11-27-24

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1112374**
PM: **829 - Brittnie L Boyd**
PB:
Shipped Via: **FedEX Priority**

Collected by (print): JLC / KRS

Site/Facility ID # **CADL - CCR**

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Remarks pH	Sample # (lab only)
MW-103D		GW									
MW-104D		GW									
MW-105D		GW									
MW-106D		GW									
MW-107D	G	GW		11-22-24	1125	3	X	X	X	7.52	-04
MW-108D		GW									
MW-109D		GW									
MW-110D		GW									
MW-112D	G	GW		11-22-24	1430	3	X	X	X	7.46	-05
MW-113D		GW									

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

Remarks:

pH _______ Temp _______

Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier __________

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	
Brandon Colbert	11-25-24	1130		Trip Blank Received: Yes [✓ No] ~~HCL / MeoH~~ TBR 0
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4+0=3.4 °C Bottles Received: 25
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11-26-24 Time: 0980

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Alliance Technical Group - Bryant, AR

219 Brown Lane
Little Rock, AR 72022

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Jonathan Brown**

Email To: **Jonathan.Brown@AllianceTG.com;Jhouse@trcc**

Project Description: **Entergy - White Bluff**

City/State Collected: Redfield, AR

Please Circle: PT MT [✓ CT] ET

Phone: **501-847-7077**

Client Project # **1145-21-080**

Lab Project # **GBMCBAR-ENTERGYWB**

Collected by (print): JLC/KRS

Site/Facility ID # **CADL - CCR**

P.O. #

Collected by (signature): Brando Colbert

Immediately Packed on Ice N ____ Y ✓

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

Quote #

Date Results Needed

SDG # ~~[illegible]~~

Table # L1804133 SP 11-27-24

Acctnum: **GBMCBAR**
Template: **T198831**
Prelogin: **P1112374**
PM: **829 - Brittnie L Boyd**
PB:

Shipped Via: **FedEX Priority**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	B, Ca 250mlHDPE-HNO3	Cl, F, SO4 250mlHDPE-NoPres	TDS 1L-HDPE NoPres								Remarks	Sample # (lab only)
MW-114D		GW															pH	
MW-115D		GW																
MW-118D		GW																
FIELD BLANK 1	G	GW		11-22-24	1350	3	x	x	x									-06
DUPLICATE 1		GW																
FIELD BLANK 2	G	GW		11-22-24	1350	3	x	x	x									-07
DUPLICATE 2 (MW-112D)	G	GW		11-22-24	1430	3	x	x	x								7.46	-08
		GW																
		GW																
		GW																

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

Remarks:

pH ______ Temp ________

Flow ______ Other ________

Samples returned via:
__ UPS __ FedEx __ Courier ___________

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes [✓ No] HCL / MeoH TBR 0
Brando Colbert	11-25-24	1130		

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:	If preservation required by Login: Date/Time
				3.4+0=3.4	28	

Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition: NCF / OK
				11-26-24	0900		

APPENDIX 5

Field Sampling Forms

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, AR	
WELL NO: MW-101S	SAMPLE ID: MW-101S	DATE: 11-20-24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	TOTAL WATER DEPTH (feet):	STATIC DEPTH TO WATER (feet): 39.11	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 47	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1534	PURGING ENDED AT: 1625	TOTAL VOLUME PURGED (gallons): 0.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1600	0.4	0.4		39.35	5.75	15.09	235	0.77	60	1.2	Clear
1605				39.35	5.81	15.06	234	0.66	70	0.0	
1610				39.42	5.78	14.79	233	0.60	71	0.0	
1615				39.45	5.77	14.69	234	0.50	74	0.0	
1620				39.46	5.77	14.60	234	0.52	78	0.0	
1625		0.8		34.48	5.76	14.51	234	0.47	76	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1625	SAMPLING ENDED AT: 1642
PUMP OR TUBING DEPTH IN WELL (feet): 47	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N	TUBING [✓ Y] N (replaced)	DUPLICATE: Y [✓ N]	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:
Final depth: 39.44 ft

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS
pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-101 D
SAMPLE ID: MW-101 D
DATE: 11-22-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 96.90
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 112
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1200
PURGING ENDED AT: 1315
TOTAL VOLUME PURGED (gallons): 2.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1230	0.9	0.9		97.24	6.82	17.90	577	8.76	-37	19.7	Clear
1235				97.32	6.97	17.92	580	7.88	-54	14.7	
1240				97.32	6.86	18.03	580	7.28	-76	14.3	
1245				97.34	6.89	18.00	581	7.02	-78	11.9	
1250				97.34	6.85	17.84	582	6.37	-92	11.3	
1255				97.39	6.89	17.90	582	6.06	-97	8.7	
1300				97.39	6.90	17.87	582	5.70	-101	8.7	
1305				97.39	6.84	17.97	583	5.36	-105	6.8	
1310				97.39	6.89	17.96	583	5.03	-108	7.2	
1315		2.4		97.39	6.88	18.03	584	4.92	-111	6.6	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1315
SAMPLING ENDED AT: 1335
PUMP OR TUBING DEPTH IN WELL (feet): 112
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: ______ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 97.39 ft

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: mw-1025

SAMPLE ID: MW-1025

DATE: 11-20-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 34.76

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 48.00

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0940

PURGING ENDED AT: 1040

TOTAL VOLUME PURGED (gallons): 1.65

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1010	0.80	0.80		35.96	5.90	23.08	208	1.04	83	83.0	Slightly turbid
1015				36.15	5.89	23.46	204	0.89	82	65.9	
1020				36.15	5.91	23.64	203	0.86	81	53.0	
1025				36.16	5.92	23.59	202	0.81	82	38.4	
1030				36.19	5.90	23.46	200	0.80	84	32.7	
1035				36.30	5.92	23.07	198	0.78	84	32.9	
1040		1.65		36.33	5.87	23.76	198	0.79	85	32.3	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1040

SAMPLING ENDED AT: 1100

PUMP OR TUBING DEPTH IN WELL (feet): 48.00

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Horiba calibrated prior to purging Final depth: 36.86

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield
WELL NO: MW-102D	SAMPLE ID: MW-102D
DATE: 11-19-24	

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 91.10
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 105
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1445
PURGING ENDED AT: 1605
TOTAL VOLUME PURGED (gallons): 2.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1520	1.00	1.00		94.87	7.33	22.52	581	1.44	-123	395	Turbid
1525				95.46	7.32	22.43	581	0.88	-123	354	
1530				95.79	7.29	22.20	585	0.93	-117	312	
1535				96.34	7.32	22.08	582	0.94	-119	922	
1540				96.87	7.32	21.81	584	0.92	-115	555	
1545				97.42	7.27	21.47	583	1.39	-119	445	
1550				97.76	7.32	21.64	580	1.63	-119	409	
1555				98.23	7.31	21.56	582	2.05	-117	425	
1600				98.75	7.31	21.10	581	1.74	-113	734	
1605	?	2.6		99.20	7.33	21.06	580	1.57	-111	71000	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1605
SAMPLING ENDED AT: 1625
PUMP OR TUBING DEPTH IN WELL (feet): 105
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N] FILTER SIZE: _____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Well did not stabilize. Proceeded with sample as done -

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

Final depth: 100.86

- in the past.

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-103S

SAMPLE ID: MW-103S

DATE: 11-18-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 21.18

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22.5

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1045

PURGING ENDED AT: 1135

TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1110					4.98	22.23	257	3.74	320	174	Turbid
1115					4.97	22.22	257	3.49	323	157	}
1120					4.97	22.29	256	3.16	326	155	|
1125					4.97	22.31	257	2.84	327	153	|
1130					4.96	22.34	257	2.80	328	151	|
1135					4.96	22.36	257	2.73	329	146	|

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLL/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1335

SAMPLING ENDED AT: —

PUMP OR TUBING DEPTH IN WELL (feet): 22.5

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Horiba calibrated prior to purging

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

- Allowed well to recharge in order to fill sample bottles
- Ran out of water again. Allowing to recharge overnight

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff | SITE LOCATION: Redfield

WELL NO: MW-103S | SAMPLE ID: MW-103S | DATE: 11-22-24

PURGING DATA

WELL DIAMETER (inches): 2 | TUBING DIAMETER (inches): 1/4 | TOTAL WATER DEPTH (feet): 23.10 | STATIC DEPTH TO WATER (feet): 20.82 | PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 22.5 | WELL SCREEN INTERVAL DEPTH: feet to feet | PURGING INITIATED AT: 1525 | PURGING ENDED AT: 1530 | TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS | SAMPLER(S) SIGNATURE(S): | SAMPLING INITIATED AT: 1530 | SAMPLING ENDED AT: 1540

PUMP OR TUBING DEPTH IN WELL (feet): 22.5 | TUBING MATERIAL CODE: | FIELD-FILTERED: Y N | FILTER SIZE: _____ µm
Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced) | DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final static depth after sample: 21.59

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: **1. The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

Due to shallow total depth (23.1 ft), quick drawdown and low recharge rate (>40 hours and well still hadn't fully recharged), a sample was taken without restabilizing the well. Allowed well to purge for 5 min before samples taken.

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: 103D
SAMPLE ID: MW-103D
DATE: 11-18-24

PURGING DATA

WELL DIAMETER (inches): 2 in
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 42.23
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 45.00
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1210
PURGING ENDED AT: 1305
TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1240					7.66	22.32	675	6.12	241	60.6	Turbid
1245					7.68	22.53	677	6.06	294	29.1	Slightly turbid
1250					7.67	22.73	676	5.84	297	38.1	〃
1255					7.67	22.21	679	5.92	299	9.0	Clear
1300					7.68	23.76	684	6.01	299	8.6	Clear
1305					7.69	23.74	683	6.24	299	8.3	〃

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KRS / JLC
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1305
SAMPLING ENDED AT: 1328
PUMP OR TUBING DEPTH IN WELL (feet): 45.00
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-104S
SAMPLE ID: MW-104S
DATE: 11-19-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 5/16
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 32.60
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 37.00
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1208
PURGING ENDED AT:
TOTAL VOLUME PURGED (gallons): 1.46

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1235	0.83	0.83		33.03	5.06	24.17	226	0.99	160	22.0	clear
1240	0.125			33.06	5.11	24.04	226	0.92	154	20.1	}
1245	0.125			33.09	5.17	23.49	229	0.89	149	14.9	}
1250	0.125			33.14	5.20	23.41	232	0.85	144	10.5	}
1255	0.125			33.15	5.21	23.39	232	0.85	141	10.1	}
1300	0.125	1.46		33.22	5.20	23.12	234	0.85	134	9.6	}

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / LRS
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1300
SAMPLING ENDED AT: 1320
PUMP OR TUBING DEPTH IN WELL (feet): 37.00
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:
FILTER SIZE: ______ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:
Final depth: 33.26

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White

SITE LOCATION: Redfield, AR

WELL NO: MV-104D

SAMPLE ID: MW-104D

DATE: 11-14-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 86.5

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 100

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1330

PURGING ENDED AT: 1405

TOTAL VOLUME PURGED (gallons): 0.95

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1355	0.68	0.68		89.83	7.34	24.27	520	0.75	-131	57.6	Turbid
1400	0.135	0.82		90.41	7.37	24.22	520	0.77	-138	52.4	{
1405	0.135	0.95		91.14	7.37	24.15	520	0.80	-138	52.7	{

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1405

SAMPLING ENDED AT: 1425

PUMP OR TUBING DEPTH IN WELL (feet): 100

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ μm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:
Final depth: 93.67

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-105 S
SAMPLE ID: MW-105 S
DATE: 11-19-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 28.96
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 43.5
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1051
PURGING ENDED AT: 1130
TOTAL VOLUME PURGED (gallons): 1.11

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1115	0.69	0.69		29.92	5.83	28.01	222	4.84	104	3.8	Clear
1120	0.14			29.93	5.82	28.29	220	4.41	109	3.9	}
1125	0.14			29.96	5.82	28.49	219	4.30	109	4.9	
1130	0.14	1.11		29.97	5.81	28.83	218	4.07	110	4.8	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KR
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1130
SAMPLING ENDED AT: 1149
PUMP OR TUBING DEPTH IN WELL (feet): 43.5
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth : 30.02

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-105D

SAMPLE ID: MW105D

DATE: 11-19-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 79.86

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 87.00

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0945

PURGING ENDED AT: 1020

TOTAL VOLUME PURGED (gallons): 1.25

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1010	0.90	0.90		83.65	7.40	20.02	548	8.01	-111	9.8	Clear
1015	0.175	1.075		84.10	7.49	20.47	550	7.60	-105	10.0	)
1020	0.175	1.25		84.71	7.50	20.31	556	7.30	-109	9.6	)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS

SAMPLER(S) SIGNATURE(S): Jacob Colbert

SAMPLING INITIATED AT: 1020

SAMPLING ENDED AT: 1040

PUMP OR TUBING DEPTH IN WELL (feet): 87.00

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: ______ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Horiba calibrated prior to Sampling

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

Final depth: 86.43 ft

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff	SITE LOCATION: Redfield, AR

WELL NO: MW-106 S	SAMPLE ID: MW-106S	DATE: 11-20-24

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	TOTAL WATER DEPTH (feet):	STATIC DEPTH TO WATER (feet): 13.68	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 18.00	WELL SCREEN INTERVAL DEPTH: feet to feet	PURGING INITIATED AT: 1120	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons): 1.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1150	1.0	1.0		13.76	4.12	26.21	1,700	0.82	332	4.3	Clear
1155				13.81	4.12	26.26	1,700	0.81	336	2.0	(
1200	1	1.3		13.84	4.12	26.15	1,670	0.81	342	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / MRS	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1200	SAMPLING ENDED AT: 1237

PUMP OR TUBING DEPTH IN WELL (feet): 18.00	TUBING MATERIAL CODE:	FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:	FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced) DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Dup. 1 taken Final depth: 14.08

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-106V

SAMPLE ID: MW-106V

DATE: 11-20-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 42.60

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 60

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1250

PURGING ENDED AT:

TOTAL VOLUME PURGED (gallons): 1.66

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1320	1.45	1.45		49.85	10.57	24.54	411	6.62	-49	4.9	Clear
1325				49.73	10.63	24.77	409	6.31	-48	5.1	(
1330		1.66		50.35	10.59	24.95	409	6.01	-49	4.6	(

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / FCRS

SAMPLER(S) SIGNATURE(S): Jacob Colhen

SAMPLING INITIATED AT: 1330

SAMPLING ENDED AT: 1350

PUMP OR TUBING DEPTH IN WELL (feet): 60

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:
Final depth: 53.42

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-107D

SAMPLE ID: MW-107D

DATE: 11-22-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 21.25

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 36

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1026

PURGING ENDED AT:

TOTAL VOLUME PURGED (gallons): 1.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1055	0.6	0.6		25.72	7.39	21.58	837	1.20	-161	0.0	Clear
1100				26.62	7.40	21.70	842	1.84	-154	2.2	
1105				27.17	7.42	21.75	838	1.32	-161	0.0	
1110				28.00	7.45	21.88	836	1.12	-164	0.0	
1115				28.96	7.47	22.04	833	1.01	-166	0.0	
1120				29.58	7.50	22.21	831	0.96	-163	0.0	
1125		1.4		30.06	7.52	22.45	827	0.91	-163	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1125

SAMPLING ENDED AT: 1141

PUMP OR TUBING DEPTH IN WELL (feet): 36

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 33.37

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-108D

SAMPLE ID: MW-108D

DATE: 11-20-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 45.86

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 62

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1410

PURGING ENDED AT:

TOTAL VOLUME PURGED (gallons): 1.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1440	0.8	0.8		51.41	7.36	16.08	721	1.22	-159	0.3	Clear
1445				51.81	7.34	15.87	720	1.27	-160	0.8	
1450				52.79	7.36	15.87	724	1.07	-160	0.0	
1455				53.95	7.34	15.79	721	1.02	-163	4.6	
1500		1.5		55.09	7.35	15.87	726	1.01	-159	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1500

SAMPLING ENDED AT: 1521

PUMP OR TUBING DEPTH IN WELL (feet): 62

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Sulphur-smell to water   Final depth: 58.61 ft

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS
pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-109D
SAMPLE ID: MW-109D
DATE: 11-21-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 79.38
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 95
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1515
PURGING ENDED AT: 1600
TOTAL VOLUME PURGED (gallons): 0.9

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1545	0.6	0.6		83.15	7.26	16.47	558	0.53	-142	0.5	Clear
1550				84.10	7.31	16.37	559	0.47	-146	0.4	}
1555				84.84	7.36	16.34	562	0.43	-150	0.3	}
1600		0.9		85.77	7.37	16.31	562	0.40	-159	0.0	}

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TLL/KRS
SAMPLER(S) SIGNATURE(S): Jacob Colbert
SAMPLING INITIATED AT: 1600
SAMPLING ENDED AT: 1618
PUMP OR TUBING DEPTH IN WELL (feet): 95
TUBING MATERIAL CODE:
FIELD-FILTERED: Y N
FILTER SIZE: _____ µm
Filtration Equipment Type:
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Sulphur smell to water. Final depth: 84.26

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-110S

SAMPLE ID: MW-110 S

DATE: 11-18-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 15.91

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 18.00

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1517

PURGING ENDED AT:

TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1545					4.62	22.47	394	5.90	318	5.0	Clear
1550					4.62	22.25	381	5.54	312	3.6	}
1555					4.71	22.26	372	5.21	301	4.3	}
1600					4.77	22.22	362	4.82	294	4.3	}
1605					4.78	22.20	363	4.61	292	4.2	}
1610					4.78	22.21	363	4.63	291	3.5	}

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1610

SAMPLING ENDED AT: 1625

PUMP OR TUBING DEPTH IN WELL (feet): 18.00

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-110 D

SAMPLE ID: MW-110D

DATE: 11-18-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 34.59

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

PUMP OR TUBING DEPTH IN WELL (feet): 40

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1355

PURGING ENDED AT: 1455

TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1425					7.42	23.75	544	0.98	-118	70.7	Turbid
1430					7.42	23.46	542	0.94	-121	70.7	
1435					7.43	23.21	543	0.92	-121	25.9	Clear
1440					7.44	23.20	542	0.95	-116	18.5	
1445					7.48	22.99	542	1.11	-98	18.3	
1450					7.52	23.00	540	1.10	-93	17.8	
1455					7.53	22.84	541	1.18	-89	17.4	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JL / KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1455

SAMPLING ENDED AT: 1510

PUMP OR TUBING DEPTH IN WELL (feet): 40

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-111 S

SAMPLE ID: MW-111S

DATE: 11-22-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 14.96

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 20

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0850

PURGING ENDED AT: 0955

TOTAL VOLUME PURGED (gallons): 1.7

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
0920	0.80	0.80		15.19	3.91	15.23	1,720	1.88	361	9.5	Clear
0925				15.24	3.79	15.60	1,710	1.85	364	6.7	
0930				15.25	3.91	16.05	1,690	1.82	369	4.8	
0935				15.25	3.90	16.43	1,690	1.71	374	2.7	
0940				15.25	3.93	16.84	1,710	1.70	377	1.3	
0945				15.25	3.91	17.36	1,690	1.70	382	0.1	
0950				15.26	3.90	17.57	1,670	1.67	385	0.1	
0955		1.7		15.26	3.92	17.84	1,680	1.70	389	0.0	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / HRS

SAMPLER(S) SIGNATURE(S): Brook Colbert

SAMPLING INITIATED AT: 0955

SAMPLING ENDED AT: 1011

PUMP OR TUBING DEPTH IN WELL (feet): 20

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] Filtration Equipment Type: O

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N (replaced)]

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Horiba calibrated prior to purging Final depth: 15.29

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-112D

SAMPLE ID: MW-112 D

DATE: 11-22-24

PURGING DATA

WELL DIAMETER (inches): 4

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 87.61

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 103

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1350

PURGING ENDED AT: 1430

TOTAL VOLUME PURGED (gallons): 1.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1420	0.9	0.9		88.77	7.44	16.29	509	1.66	-156	0.0	Clear
1425				89.04	7.46	16.37	507	1.74	-165	0.0	(
1430		1.2		89.31	7.46	16.27	509	1.61	-165	0.0	)

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1430

SAMPLING ENDED AT: 1510

PUMP OR TUBING DEPTH IN WELL (feet): 103

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N] FILTER SIZE: ____ µm
Filtration Equipment Type:

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: [✓ Y] N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 91 ft

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-113D
SAMPLE ID: MW-113D
DATE: 11-21-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 10.25
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 27
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1235
PURGING ENDED AT: 1315
TOTAL VOLUME PURGED (gallons): 1.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1305	0.8	0.8		10.55	6.75	26.24	1,490	0.48	-6	3.7	clear
1310				11.72	6.73	26.21	1,490	0.45	-4	2.8	⟆
1315		1.2		11.94	6.75	26.21	1,490	0.44	-1	2.5	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / KRS
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1315
SAMPLING ENDED AT: 1333
PUMP OR TUBING DEPTH IN WELL (feet): 27
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 12.75

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AR

WELL NO: MW-114D

SAMPLE ID: MW-114D

DATE: 11-21-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 60.4

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 80

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 0955

PURGING ENDED AT: 1070

TOTAL VOLUME PURGED (gallons): 1.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1015	0.6	0.6		61.08	7.34	13.51	517	0.45	-142	0.5	Clear
1020				61.16	7.38	13.86	516	0.44	-145	0.3	}
1025				61.34	7.37	14.04	516	0.41	-147	0.1	}
1030		1.0		61.41	7.38	14.22	513	0.40	-149	0.1	}

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1030

SAMPLING ENDED AT: 1049

PUMP OR TUBING DEPTH IN WELL (feet): 80

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING Y [✓ N] (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Horiba calibrated prior to sampling Final depth: 61.79 ft

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential**: ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff

SITE LOCATION: Redfield, AK

WELL NO: MW-11S 17

SAMPLE ID: MW-11S 17

DATE: 11-21-24

PURGING DATA

WELL DIAMETER (inches): 2

TUBING DIAMETER (inches): 1/4

TOTAL WATER DEPTH (feet):

STATIC DEPTH TO WATER (feet): 75.28

PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 90

WELL SCREEN INTERVAL DEPTH: feet to feet

PURGING INITIATED AT: 1355

PURGING ENDED AT: 1440

TOTAL VOLUME PURGED (gallons): 1.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1425	0.8	0.8		76.36	7.45	17.45	522	0.44	-71	5.4	Clear
1430				76.59	7.44	17.39	523	0.42	-68	4.8	Clear
1435				76.80	7.46	17.33	524	0.44	-71	4.5	Clear
1440		1.3		77.07	7.45	17.13	524	0.41	-68	4.5	

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JL/KRS

SAMPLER(S) SIGNATURE(S):

SAMPLING INITIATED AT: 1440

SAMPLING ENDED AT: 1500

PUMP OR TUBING DEPTH IN WELL (feet): 90

TUBING MATERIAL CODE:

FIELD-FILTERED: Y [✓ N]

Filtration Equipment Type:

FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)

DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 77.15

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

GROUNDWATER SAMPLING LOG

SITE NAME: White Bluff
SITE LOCATION: Redfield, AR
WELL NO: MW-118D
SAMPLE ID: MW-118
DATE: 11-21-24

PURGING DATA

WELL DIAMETER (inches): 2
TUBING DIAMETER (inches): 1/4
TOTAL WATER DEPTH (feet):
STATIC DEPTH TO WATER (feet): 40.95
PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = N/A gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = N/A gallons

PUMP OR TUBING DEPTH IN WELL (feet): 60
WELL SCREEN INTERVAL DEPTH: feet to feet
PURGING INITIATED AT: 1105
PURGING ENDED AT: 1150
TOTAL VOLUME PURGED (gallons): 1.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or [✓ µS/cm]	DISSOLVED OXYGEN (circle units) [✓ mg/L] or % saturation	Redox (mV)	Turbidity (NTU)	COLOR / ODOR (describe)
1135	0.9	0.9		41.36	7.21	20.40	764	0.65	27	5.8	Clear
1140				41.37	7.20	20.68	755	0.60	25	4.0	}
1145				41.40	7.19	20.85	753	0.57	20	4.1	}
1150		1.4		41.42	7.16	20.96	747	0.54	15	4.7	}

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JLC / Hrs
SAMPLER(S) SIGNATURE(S):
SAMPLING INITIATED AT: 1150
SAMPLING ENDED AT: 1211
PUMP OR TUBING DEPTH IN WELL (feet): 60
TUBING MATERIAL CODE:
FIELD-FILTERED: Y [✓ N]
Filtration Equipment Type:
FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP [✓ Y] N TUBING [✓ Y] N (replaced)
DUPLICATE: Y [✓ N]

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	Final pH/ Temp			

REMARKS: Final depth: 41.53

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS

pH: ± 0.1 units **Temperature:** ± 3% **Specific Conductance:** ± 3% **Dissolved Oxygen:** (10% for values greater than 0.5 mg/L, if three dissolved oxygen values are less than 0.5 mg/L, consider the values as stabilized) **Turbidity:** (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized) **Oxidation/Reduction Potential:** ± 10 millivolts

APPENDIX E-2
FIRST HALF 2025
ALTERNATE SOURCE DEMONSTRATION