11228 Aurora Avenue
Des Moines, Iowa 50322-7905
United States
ghd.com

Our ref: 12592594-LTR-4

January 30, 2026

Mr. Brian Rath
Environmental Engineer Senior
Solid Waste and Contaminated Sites Section
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321

2025 IDNR Template Tables
Walter Scott Jr. Energy Center (WSEC) CCR Monofill
Council Bluffs, Iowa
Permit 78-SDP-26-06P

Dear Brian,

GHD has prepared Table 7 and Table 9 using the general format provided in the Iowa Department of Natural Resources' (IDNR's) *Annual Water Quality Report Template for Non-Municipal Landfills*. Table 7 and Table 9, provided in Attachment 1, are modified as approved during our January 23, 2025 telephone conversation with Geoffrey Spain (IDNR) and Josh Love of MidAmerican Energy Company. A comparison of the IDNR Action Levels from 567 Iowa Administrative Code (IAC) Chapter 103 to the criteria specified in the federal CCR rule (40 CFR §257) is provided in Attachment 2.

In Attachment 3, the 2025 groundwater monitoring results are compared to the Maximum Contaminant Level (MCL) or Health Advisory Lifetime (HAL) as described in 567 IAC Chapter 103, paragraph 103.1(4)d.

Attachment 4 provides a crosswalk table to reference the items provided in the Annual Groundwater Monitoring and Corrective Action Report prepared under the Federal CCR rule with the IDNR's *Annual Water Quality Report Template for Non-Municipal Landfills*.

If you have any questions regarding these tables, please contact Kevin Amstrong.

Sincerely,

Kevin G. Armstrong
Hydrogeologist

+1 515 414-3935
kevin.armstrong@ghd.com

Michael J. Alowitz, P.E.
Senior Engineer

+1 515 414-3934
michael.alowitz@ghd.com

KA/ls/4/S4

Encl.: Attachments 1-4
Copy to: Scott Burns, MidAmerican Energy Company
Josh Love, MidAmerican Energy Company

Attachments

Attachment 1

IDNR Template Table 7 and Table 9

Summary of Ongoing and Newly Identified Control Limit Exceedances
2025 Annual Water Quality Report
Walter Scott Jr. Energy Center - CCR Monofill
Permit No. 78-SDP-26-06P

Well	Constituent	Units	Most recent result	Background Standard	Groundwater Protection Standard 40 CFR §257.95(h)
MW-34 (Background)	None	--	--	--	--
MW-105	Chloride	mg/L	33.7 / 36.0	17.7	None
	Sulfate	mg/L	181 / 183	136 - 148	None
	Total Dissolved Solids (TDS)	mg/L	898 / 888	723	None
MW-108	None	--	--	--	--
MW-133	Boron	mg/L	0.394	<0.200	None
	Chloride	mg/L	81.2	6.57 - 21	None
MW-156	pH, lab	s.u.	7.5 J	6.69 - 7.31	None
	Calcium	mg/L	242	238	None
	Sulfate	mg/L	301	191 - 247	None
MW-157	Chloride	mg/L	55.2	7.25 - 41.1	None
MW-158	None	--	--	--	--
MW-159	pH, lab	s.u.	7.5 J	6.65 - 7.48	None
MW-190	None	--	--	--	--
MW-191	Sulfate	mg/L	186	168	None
MW-227	Sulfate	mg/L	272	65.3 - 206	None
MW-240R	None	--	--	--	--
MW-244	pH, lab	s.u.	7.7 J	6.56 - 7.65	None
	Calcium	mg/L	158	148	None
MW-245	Calcium	mg/L	212 / 197	198	None
	Sulfate	mg/L	383 / 366	226 - 294	None
MW-246	None	--	--	--	--
MW-247	None	--	--	--	--
MW-248	Boron	mg/L	0.205	<0.200	None
MW-250	Calcium	mg/L	220	194	None
	Chloride	mg/L	11.9	7.6	None
	Sulfate	mg/L	224	106	None
	Total Dissolved Solids (TDS)	mg/L	1000	712	None
MW-307 (Background)	Boron	mg/L	0.202	0.194	None
	Calcium	mg/L	124	120	None
	Sulfate	mg/L	84.3	25.2	None
	Total Dissolved Solids (TDS)	mg/L	512	464	None
TW-1 (Background)	None	--	--	--	--
TW-2 (Background)	None	--	--	--	--

Comments:

Statistics are based on the intra-well upper prediction limit (UPL) developed in accordance with the Federal CCR rule.

Table 4.3 of the Annual Groundwater Monitoring and Corrective Action Report provides the intra-well UPLs established for the Appendix III analytes.

The following Appendix III analyte(s) are compared to the intra-well UPLs; no IDNR Action Level has been established: calcium.

The following Appendix III analyte(s) are compared to the intra-well UPLs where higher than the IDNR Action Level: sulfate and TDS.

Table 9

Historical Control Limit & GWPS Exceedances
2025 Annual Water Quality Report
Walter Scott Jr. Energy Center - CCR Monofill
Permit No. 78-SDP-26-06P

Key: gray =CL; black =GWPS		April	June	October	November	January	April	June	October	November	April	June	October	December	April	June	October	December
Well	**Constituent**	**2022**	**2022**	**2022**	**2022**	**2023**	**2023**	**2023**	**2023**	**2023**	**2024**	**2024**	**2024**	**2024**	**2025**	**2025**	**2025**	**2025**
MW-34 (Background)	None		*ns*	*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*
MW-105	Calcium		*ns*		*ns*			*ns*		*na*		*ns*				*na*		
	Chloride		*ns*		*ns*	*na*		*ns*				*ns*		*na*		*na*		*na*
	pH, lab		*ns*		*ns*	*na*		*ns*				*ns*						
	Sulfate		*ns*		*ns*	*na*		*ns*		*na*		*ns*				*na*		*na*
	Total Dissolved Solids (TDS)		*ns*		*ns*			*ns*				*ns*		*na*		*na*		*na*
MW-108	pH, lab		*ns*		*ns*	*ns*		*ns*				*na*		*na*				
	Boron		*ns*		*ns*	*ns*		*ns*		*na*				*na*		*na*		*na*
	Chloride		*ns*		*ns*	*ns*		*ns*		*na*		*na*				*na*		*na*
	Total Dissolved Solids (TDS)		*ns*		*ns*	*ns*		*ns*		*na*		*na*				*na*		*na*
MW-133	Boron					*na*				*na*		*ns*		*ns*		*na*		*na*
	Calcium					*na*				*na*		*ns*		*ns*		*na*		*na*
	Chloride					*na*		*na*		*na*		*ns*		*ns*		*na*		*na*
	pH, lab					*na*		*na*				*ns*		*ns*				
MW-156[a]	Calcium	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*			*ns*	*ns*		*na*
	Sulfate	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*			*ns*	*ns*		*na*
	pH, lab	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*na*	*ns*	*ns*		*na*
	Chloride	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*na*	*ns*	*ns*		
MW-157	Chloride	*ns*	*ns*		*ns*	*ns*	*ns*	*ns*		*ns*	*ns*	*ns*				*ns*		*ns*
MW-158	None		*ns*		*ns*	*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*
MW-159	Boron				*ns*	*ns*		*ns*		*na*		*ns*		*ns*		*na*		*ns*
	Calcium		*na*		*ns*	*ns*		*ns*		*na*		*ns*		*ns*		*na*		*ns*
	pH, lab		*na*		*ns*	*ns*		*ns*				*ns*		*ns*				*ns*
MW-190	Calcium				*ns*	*ns*		*ns*		*ns*				*ns*		*ns*		*ns*
MW-191	Calcium	*ns*	*ns*		*ns*	*ns*	*ns*	*ns*		*ns*	*ns*	*ns*		*na*		*ns*		*ns*
	Sulfate	*ns*	*ns*		*ns*	*ns*	*ns*	*ns*		*ns*	*ns*	*ns*				*ns*		*ns*
MW-227	Calcium	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*			*ns*	*ns*		*ns*
	Sulfate	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*			*ns*	*ns*		*ns*
MW-240R	pH, lab		*ns*		*ns*	*ns*		*ns*				*ns*		*ns*				
MW-244	Calcium				*ns*	*ns*		*ns*		*na*		*ns*				*ns*		*na*
	pH, lab		*na*		*ns*	*ns*		*ns*				*ns*		*na*		*ns*		*na*
	Sulfate		*na*		*ns*	*ns*		*ns*		*na*		*ns*				*ns*		
MW-245	Boron	*ns*	*ns*		*ns*	*ns*		*na*		*na*		*ns*		*na*		*na*		*na*
	Calcium	*ns*	*ns*		*ns*	*ns*				*na*		*ns*				*na*		
	pH, lab	*ns*	*ns*		*ns*	*ns*		*na*				*ns*						
	Sulfate	*ns*	*ns*		*ns*	*ns*		*na*		*na*		*ns*				*na*		
MW-246	Boron	*ns*	*ns*		*ns*	*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*
MW-247	Boron				*ns*	*ns*		*ns*		*na*		*na*		*na*		*na*		*na*
	Calcium		*na*		*ns*	*ns*		*ns*		*na*		*na*				*na*		*na*
	Chloride				*ns*	*ns*		*ns*		*na*						*na*		*na*
	pH, lab		*na*		*ns*	*ns*		*ns*				*na*		*na*				
	Sulfate				*ns*	*ns*		*ns*		*na*		*na*				*na*		*na*
	Total Dissolved Solids (TDS)				*ns*	*ns*		*ns*		*na*		*na*				*na*		*na*

Historical Control Limit & GWPS Exceedances
2025 Annual Water Quality Report
Walter Scott Jr. Energy Center - CCR Monofill
Permit No. 78-SDP-26-06P

Key: gray =CL; black =GWPS		April	June	October	November	January	April	June	October	November	April	June	October	December	April	June	October	December
Well	**Constituent**	**2022**	**2022**	**2022**	**2022**	**2023**	**2023**	**2023**	**2023**	**2023**	**2024**	**2024**	**2024**	**2024**	**2025**	**2025**	**2025**	**2025**
MW-248	Boron		*na*		*ns*	*ns*		*ns*		*na*		*ns*		*ns*		*na*		
	Calcium				*ns*	*ns*		*ns*		*na*		*ns*		*ns*				*na*
	Chloride				*ns*	*ns*		*ns*		*na*		*ns*		*ns*				*na*
	pH, lab		*na*		*ns*	*ns*		*ns*				*ns*		*ns*		*na*		*na*
	Sulfate				*ns*	*ns*		*ns*		*na*		*ns*		*ns*				
	Total Dissolved Solids (TDS)		*na*		*ns*	*ns*		*ns*		*na*		*ns*		*ns*				*na*
MW-250	Calcium		*na*		*ns*			*na*		*na*		*ns*		*ns*		*na*		*na*
	Chloride		*na*		*ns*	*na*				*na*		*ns*		*ns*		*na*		*na*
	pH, lab		*na*		*ns*	*na*		*na*				*ns*		*ns*				
	Sulfate		*na*		*ns*			*na*		*na*		*ns*		*ns*		*na*		*na*
	Total Dissolved Solids (TDS)		*na*		*ns*			*na*		*na*		*ns*		*ns*		*na*		*na*
MW-307 (Background)[a]	Boron	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*ns*		*ns*		*ns*
	Calcium	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*ns*		*ns*		*ns*
	Sulfate	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*ns*		*ns*		*ns*
	Total Dissolved Solids (TDS)	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*	*ns*		*ns*		*ns*		*ns*
TW-1 (Background)	None		*ns*	*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*
TW-2 (Background)	None		*ns*	*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*		*ns*

Comments:

ns - No sample collected during this sampling event.

na - Constituent not analyzed.

[a] Well was not sampled due to low water levels.

Statistics are based on the intra-well upper prediction limit (UPL) developed in accordance with the Federal CCR rule.

Table 4.3 of the Annual Groundwater Monitoring and Corrective Action Report provides the intra-well UPLs established for the Appendix III analytes.

The following Appendix III analyte(s) are compared to the intra-well UPLs; no IDNR Action Level has been established: calcium.

The following Appendix III analyte(s) are compared to the intra-well UPLs where higher than the IDNR Action Level: sulfate and TDS.

Grey shading indicates exceedance of the intra-well UPL.

Black shading indicates exceedance of the site-specific GWPS.

Attachment 2

Iowa CCR Rule and Federal CCR Rule Criteria Summary

Iowa CCR Rule and Federal CCR Rule Criteria Summary for WSEC Monofill Groundwater
MidAmerican Energy Company
WSEC CCR Monofill
Council Bluffs, Iowa

Analytes	Units	IDNR CCR Rule *567 IAC Chapter 103, paragraph 103.1(4)d* MCL [a]	HAL [b]	SDWR [c]	Federal CCR Rule *40 CFR 257.95(h)(1) - 40 CFR 257.95(h)(3)* MCL [a]	CCR Rule GWPS [d]	Intra-well Upper Prediction Limit [e]	Site-Specific GWPS	Basis for Comparison on IDNR Template Tables
Appendix III									
Boron	mg/L	--	6	--	--	--	varies by well	none	Use HAL.
Calcium	mg/L	--	--	--	--	--	**varies by well**	none	**No MCL or HAL, so use intra-well UPL for comparison.**
Chloride	mg/L	--	--	250	--	--	varies by well	none	Use secondary MCL.
pH, lab	s.u.	--	--	6.5-8.5	--	--	**varies by well**	none	**Use intra-well prediction limit where differs from secondary MCL.**
Sulfate	mg/L	--	--	250	--	--	**varies by well**	none	**Use intra-well UPL for comparison where higher than secondary MCL.**
TDS	mg/L	--	--	500	--	--	**varies by well**	none	**Use intra-well UPL for comparison where higher than secondary MCL.**

Notes:

-- - Not applicable.

U - Not detected at the associated reporting limit.

[a] Maximum contaminant level (MCL) - used in both IDNR and Federal CCR rules.

[b] Drink Water Health Advisory - Lifetime (HAL).

[c] Secondary Drinking Water Regulation (SDWR).

[d] Groundwater protection standard (GWPS) established under 40 CFR 257.95(h)(2).

[e] Intra-well upper prediction limit (UPL) developed in accordance with the Federal CCR rule (40 CFR 257.95(h)(3)).

[f] Action level for lead (treatment technique).

409 Federal value varies for some wells from state action levels (MCL, HAL, SDWR).

Attachment 3

MCL/HAL Comparison Table

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:					MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-108	MW-108	MW-108
Sample ID:					MW105-GW-0425	DP03-GW-0425	MW105-GW-0625	MW105-GW-1025	DP03-GW-1025	MW105-GW-1225	MW108-GW-0425	MW108-GW-0625	MW108-GW-1025
Sample Date:					4/2/2025	4/2/2025 (Duplicate)	6/11/2025	10/2/2025	10/2/2025 (Duplicate)	12/9/2025	4/2/2025	6/11/2025	10/1/2025
Parameters	**Units**	**MCL [a]**	**HAL [b]**	**SDWR [c]**									
Appendix III													
Boron	mg/L	--	6	--	0.191	0.188	--	0.213	0.212	--	0.221	--	0.190
Calcium	mg/L	--	--	--	162	162	--	187	176	159	127	--	139
Chloride	mg/L	--	--	250	22.4	20.5	--	33.7	36.0	--	27.4	--	20.8
Fluoride	mg/L	4.0	--	2.0	<1.00	<1.00	--	<1.00	<1.00	--	1.12	<1.00	<1.00
pH, lab	s.u.	--	--	6.5 - 8.5	7.7 J	7.7 J	7.1 J	7.5 J	7.6 J	7.0 J	7.5 J	6.9 J	7.5 J
Sulfate	mg/L	--	--	250	154	151	--	181	183	--	<5.00	--	<5.00
Total dissolved solids (TDS)	mg/L	--	--	500	**762**	**758**	--	**898**	**888**	--	**682**	--	**688**
Appendix IV													
Antimony	mg/L	0.006	0.006	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	0.01	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	2.0	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	0.004	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	0.005	0.005	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	0.1	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	0.015 [d]	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	0.002	0.002	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	0.04	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	5	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.05	0.05	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	0.002	--	--	--	--	--	--	--	--	--	--	--

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-108	MW-133	MW-133	MW-133	MW-133	MW-156	MW-156	MW-156D	MW-156D	MW-156D
Sample ID:		MW108-GW-1225	MW133-GW-0425	MW133-GW-0625	MW133-GW-1025	MW133-GW-1225	MW156-GW-1025	MW156-GW-1225	MW156D-GW-0125	MW156D-GW-0425	MW156D-GW-0725
Sample Date:		12/9/2025	4/2/2025	6/11/2025	10/1/2025	12/9/2025	10/2/2025	12/9/2025	1/23/2025	4/3/2025	7/24/2025
Parameters	**Units**										
Appendix III											
Boron	mg/L	--	0.376	--	0.394	--	0.237	--	0.202	0.217	0.148
Calcium	mg/L	--	190	--	184	--	242	--	236	325	227 J
Chloride	mg/L	--	101	--	81.2	--	75.7	45.8	52.3	30.5	14.9
Fluoride	mg/L	--	<1.00	--	<1.00	--	<1.00	--	<1.00	<1.00	<1.00
pH, lab	s.u.	7.0 J	7.7 J	7.0 J	7.6 J	7.1 J	7.5 J	--	7.0 J	7.6 J	7.2 J
Sulfate	mg/L	--	**272**	--	185	--	**301**	--	**299**	**494**	**345**
Total dissolved solids (TDS)	mg/L	--	**1020**	--	**908**	--	**1130**	--	**1060**	**1330**	**1060**
Appendix IV											
Antimony	mg/L	--	--	--	--	--	--	--	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	--	--	--	--	--	0.00361	**0.0101**	**0.0108**
Barium	mg/L	--	--	--	--	--	--	--	0.0711	0.0894	0.0634
Beryllium	mg/L	--	--	--	--	--	--	--	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	--	--	--	--	<0.000200	<0.000200	<0.000200
Chromium	mg/L	--	--	--	--	--	--	--	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	--	--	--	--	--	0.00302	0.00293	0.00260
Lead	mg/L	--	--	--	--	--	--	--	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	--	--	--	--	0.0879	0.0992	0.0779
Mercury	mg/L	--	--	--	--	--	--	--	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	--	--	--	--	--	--	--	<0.00200	<0.00200	<0.00200
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	1.53	0.602	0.884
Selenium	mg/L	--	--	--	--	--	--	--	0.00981	<0.00500	<0.00500
Thallium	mg/L	--	--	--	--	--	--	--	<0.00100	<0.00100	<0.00100

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-156D	MW-157	MW-157	MW-158	MW-158	MW-159	MW-159	MW-159	MW-190	MW-190
Sample ID:		MW156D-GW-1025	MW157-GW-0425	MW157-GW-1025	MW158-GW-0425	MW158-GW-1025	MW159-GW-0425	MW159-GW-0625	MW159-GW-1025	MW190-GW-0425	MW190-GW-1025
Sample Date:		10/2/2025	4/2/2025	10/2/2025	4/2/2025	10/2/2025	4/2/2025	6/11/2025	10/2/2025	4/2/2025	10/2/2025
Parameters	**Units**										
Appendix III											
Boron	mg/L	0.244	0.344	0.296	0.475	0.651	0.308	--	0.308	0.139	0.142
Calcium	mg/L	221	222	207	363	306	198	--	188	169	158
Chloride	mg/L	18.0	56.1	55.2	33.9	28.3	15.6	--	13.5	11.4	11.9
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	--	<1.00	<1.00	<1.00
pH, lab	s.u.	7.6 J	7.5 J	7.4 J	7.5 J	7.4 J	7.6 J	6.9 J	7.5 J	7.7 J	7.5 J
Sulfate	mg/L	**357**	197	186	**524**	**403**	213	--	202	212	246
Total dissolved solids (TDS)	mg/L	**1030**	**984**	**896**	**1560**	**1310**	**866**	--	**850**	**810**	**834**
Appendix IV											
Antimony	mg/L	<0.00200	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	**0.0122**	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.0685	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.00100	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.000200	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.00500	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	0.00197	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.000500	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0855	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.000200	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	<0.00200	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	1.10	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.00749	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.00100	--	--	--	--	--	--	--	--	--

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-191	MW-191	MW-227	MW-227D	MW-227D	MW-227D	MW-227D	MW-240R	MW-240R	MW-240R
Sample ID:		MW191-GW-0425	MW191-GW-1025	MW227-GW-1025	MW227D-GW-0125	MW227D-GW-0425	MW227D-GW-0725	MW227D-GW-1025	MW240R-GW-0425	DP04-GW-0425	MW240R-GW-0625
Sample Date:		4/2/2025	10/2/2025	10/1/2025	1/23/2025	4/2/2025	7/24/2025	10/1/2025	4/2/2025	4/3/2025 (Duplicate)	6/11/2025
Parameters	**Units**										
Appendix III											
Boron	mg/L	0.149	0.150	0.140	0.152	0.142	0.116	0.223	0.305	0.303	--
Calcium	mg/L	165	153	164	152	166	127 J	181	156	157	--
Chloride	mg/L	10.5	10.2	8.72	14.5	7.76	7.12	27.9	24.9	25.1	--
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	--
pH, lab	s.u.	7.7 J	7.6 J	7.5 J	7.0 J	7.7 J	7.1 J	7.7 J	7.8 J	7.5 J	7.1 J
Sulfate	mg/L	187	186	**272**	175	**251**	155	223	212	209	--
Total dissolved solids (TDS)	mg/L	**784**	**766**	**852**	**740**	**810**	**638**	**910**	**842**	**806**	--
Appendix IV											
Antimony	mg/L	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200	--	--	--
Arsenic	mg/L	--	--	--	**0.0107**	**0.0137**	**0.0200**	<0.00200	--	--	--
Barium	mg/L	--	--	--	0.279	0.367	0.323	0.107	--	--	--
Beryllium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--	--
Cadmium	mg/L	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--	--
Chromium	mg/L	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	--	--	--
Cobalt	mg/L	--	--	--	0.00124	<0.000500	<0.000500	<0.000500	--	--	--
Lead	mg/L	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500	--	--	--
Lithium	mg/L	--	--	--	0.0665	0.0658	0.0543	0.0870	--	--	--
Mercury	mg/L	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--	--
Molybdenum	mg/L	--	--	--	<0.00200	0.00211	0.00253	<0.00200	--	--	--
Radium-226 & 228	pCi/L	--	--	--	1.06	1.09	0.899	3.19	--	--	--
Selenium	mg/L	--	--	--	0.0105	<0.00500	<0.00500	0.0417	--	--	--
Thallium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--	--

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-240R	MW-240R	MW-240R	MW-244	MW-244	MW-244	MW-245	MW-245	MW-245	MW-245
Sample ID:		MW240R-GW-1025	DP04-GW-1025	MW240R-GW-1225	MW244-GW-0425	MW244-GW-1025	MW244-GW-1225	MW245-GW-0425	MW245-GW-0625	MW245-GW-1025	MW245-GW-1225
Sample Date:		10/1/2025	10/1/2025 (Duplicate)	12/9/2025	4/2/2025	10/1/2025	12/9/2025	4/2/2025	6/11/2025	10/2/2025	12/9/2025
Parameters	**Units**										
Appendix III											
Boron	mg/L	0.306	0.305	--	0.140	<0.100	--	0.349	--	0.359	--
Calcium	mg/L	143	139	--	136	158	--	195	--	232	212
Chloride	mg/L	12.1	12.1	--	11.1	11.7	--	8.37	--	8.59	--
Fluoride	mg/L	<1.00	<1.00	--	<1.00	<1.00	--	<1.00	--	<1.00	--
pH, lab	s.u.	7.7 J	7.7 J	7.2 J	7.7 J	7.7 J	--	7.6 J	6.9 J	7.6 J	7.0 J
Sulfate	mg/L	206	206	--	66.3	130	91.3	207	--	**376**	**383**
Total dissolved solids (TDS)	mg/L	**748**	**766**	--	**676**	**812**	--	**1030**	--	**1280**	--
Appendix IV											
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-245	MW-246	MW-246	MW-247	MW-247	MW-247	MW-247	MW-248	MW-248	MW-248
Sample ID:		DP01-GW-1225	MW246-GW-0425	MW246-GW-1025	MW247-GW-0425	MW247-GW-0625	MW247-GW-1025	MW247-GW-1225	MW248-GW-0425	MW248-GW-0625	DP01-GW-0625
Sample Date:		12/9/2025 (Duplicate)	4/2/2025	10/2/2025	4/2/2025	6/11/2025	10/2/2025	12/9/2025	4/2/2025	6/11/2025	6/11/2025 (Duplicate)
Parameters	**Units**										
Appendix III											
Boron	mg/L	--	0.149	0.144	0.182	--	0.190	--	0.176	--	--
Calcium	mg/L	197	167	171	145	--	157	--	153	137	130
Chloride	mg/L	--	13.2	11.7	13.8	--	13.5	--	17.1	12.6	12.5
Fluoride	mg/L	--	<1.00	<1.00	<1.00	--	<1.00	--	<1.00	--	--
pH, lab	s.u.	7.0 J	7.7 J	7.6 J	7.7 J	7.0 J	7.6 J	7.0 J	7.7 J	--	--
Sulfate	mg/L	**366**	45.8	71.0	120	--	130	--	157	108	107
Total dissolved solids (TDS)	mg/L	--	**778**	**820**	**708**	--	**762**	--	**740**	**602**	**596**
Appendix IV											
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-248	MW-248	MW-250	MW-250	MW-250	MW-250	MW-307	MW-307	MW-307D	MW-307D
Sample ID:		MW248-GW-1025	MW248-GW-1225	MW250-GW-0425	MW250-GW-0625	MW250-GW-1025	MW250-GW-1225	MW307-GW-0425	MW307-GW-1025	MW307D-GW-0125	MW307D-GW-0425
Sample Date:		10/2/2025	12/9/2025	4/2/2025	6/11/2025	10/1/2025	12/9/2025	3/31/2025	9/30/2025	1/23/2025	3/31/2025
Parameters	**Units**										
Appendix III											
Boron	mg/L	0.224	0.205	0.240	--	0.226	--	0.201	0.202	0.246	0.193
Calcium	mg/L	142	--	199	--	220	--	123	124	116	119
Chloride	mg/L	12.6	--	12.2	--	11.9	--	<5.00	<5.00	<5.00	<5.00
Fluoride	mg/L	<1.00	--	<1.00	--	<1.00	--	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.6 J	--	7.5 J	6.9 J	7.5 J	6.9 J	7.2 J	7.0 J	7.0 J	7.3 J
Sulfate	mg/L	134	118	207	--	224	--	61.3	84.3	49.1	32.6
Total dissolved solids (TDS)	mg/L	**664**	--	**926**	--	**1000**	--	496	**512**	**534**	462
Appendix IV											
Antimony	mg/L	--	--	--	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	--	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200
Barium	mg/L	--	--	--	--	--	--	0.204	0.202	0.195	0.192
Beryllium	mg/L	--	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	--	--	--	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	--	--	--	--	<0.000500	<0.000500	0.000855	<0.000500
Lead	mg/L	--	--	--	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	--	--	--	0.0802	0.0861	0.0811	0.0675
Mercury	mg/L	--	--	--	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	--	--	--	--	--	--	<0.00200	0.00687	<0.00200	0.00231
Radium-226 & 228	pCi/L	--	--	--	--	--	--	0.969	0.505	0.702	0.506
Selenium	mg/L	--	--	--	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	--	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa
Permit 78-SDP-26-06P

Sample Location:		MW-307D	MW-307D	MW-34	MW-34	TW-1	TW-1	TW-2	TW-2
Sample ID:		MW307D-GW-0725	MW307D-GW-1025	MW34-GW-0425	MW34-GW-1025	TW1-GW-0425	TW1-GW-1025	TW2-GW-0425	TW2-GW-1025
Sample Date:		7/24/2025	9/30/2025	4/1/2025	9/29/2025	4/1/2025	9/29/2025	3/31/2025	9/29/2025
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.193	0.204	0.111	0.134	0.187	0.373	0.163	0.432
Calcium	mg/L	119 J	121	101	85.1	213	178	205	148
Chloride	mg/L	<5.00	5.14	8.13	6.23	22.2	17.8	41.2	15.8
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.2 J	7.2 J	7.3 J	7.1 J	7.1 J	7.0 J	7.2 J	7.2 J
Sulfate	mg/L	36.6	43.3	44.8	29.6	**337**	204	**341**	11.1
Total dissolved solids (TDS)	mg/L	**514**	**512**	494	428	**1120**	**832**	**1160**	**730**
Appendix IV									
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	<0.00200	<0.00200	**0.0395**	**0.0922**	**0.0217**	**0.0428**	**0.0215**	**0.0913**
Barium	mg/L	0.226	0.244	0.252	0.449	0.316	0.466	0.139	0.175
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	<0.000500	<0.000500	0.00106	0.000643	0.000813	0.000554	<0.000500	<0.000500
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000928	<0.000500	<0.000500
Lithium	mg/L	0.0675	0.0764	0.0331	0.0341	0.0522	0.0438	0.0875	0.0598
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	0.00295	0.00330	0.00421	0.00420	0.00478	0.00337	<0.00200	0.00287
Radium-226 & 228	pCi/L	0.662 U	0.641	0.448	1.02	1.75	3.50	1.64	2.26
Selenium	mg/L	<0.00500	<0.00500	0.0236	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Notes:

[a] Maximum contaminant level (MCL) established in the 2018 Edition of the Drinking Water Standards and Health Advisories (EPA 822-F-18-001).

[b] Drink Water Health Advisory - Life-time established in the 2018 Edition of the Drinking Water Standards and Health Advisories (EPA 822-F-18-001).

[c] Secondary Drinking Water Regulation (SDWR) established in the 2018 Edition of the Drinking Water Standards and Health Advisories (EPA 822-F-18-001).

[d] Action level for lead (treatment technique).

[e] Federal statistics (95/95 UTL Background Standard or GWPS, whichever is higher) exceeds the DNR Action Level.

1.00 Value exceeds the MCL, or HAL/SDWR where MCL not established.

J - Estimated concentration.

< - Not detected at the associated reporting limit.

Attachment 4

IDNR Template to AGWMCAR Cross Reference Table

IDNR Template to AGWMCAR Cross Reference Table

Walter Scott Jr. Energy Center - CCR Monofill
Permit No. 78-SDP-26-06P

Annual Water Quality Report Template for Non-Municipal Landfills	Annual Groundwater Monitoring and Corrective Action Report	Notes
Table 1 Monitoring Program Summary	Table 2.1 Groundwater Monitoring Well Network	Lists all wells in monitoring network.
	Table 2.6 Summary of Groundwater Monitoring Events	Lists total number of samples from monitoring programs since March 2016.
	Table 4.4 Intra-Well Comparisons of Monitoring Data vs. Baseline UPLs	Compares current reporting period's groundwater data to the prediction limit value (control limit).
	Section 1.1 Purpose of this Report	States the current monitoring program.
	Section 2.1 Groundwater Monitoring Network	Describes the aquifer characteristics.
	Section 6.3 Recommendations	Provides recommended changes, if any, to the monitoring network.
Table 2 Monitoring Program Implementation Schedule	Table 2.6 Summary of Groundwater Monitoring Events	Provides summary of sampling events since March 2016.
Table 3 Monitoring Well Maintenance and Performance Revaluation Schedule	Section 2.2 Monitoring Well Inspection	States the frequency of total depth measurements (annually).
Table 4 Monitoring Well Maintenance and Performance Summary	Table 2.2 Well Construction Details	Provides well coordinates and elevations for TOC, original total depth, ground surface, top of screen, and bottom of screen.
	Table 2.3 Monitoring Well Screen Occlusion Evaluation	Provides TOC elevation, original total depth below TOC, screen length, annual total depth measurements, and percent of screen occluded.
	Table 3.1 Groundwater Elevation Summary	Provides groundwater elevation data, past elevations through elevations during the current reporting period.
Table 5 Background Summary	Table 4.3 Intra-Well Comparison Values	Summary of intra-well evaluation on wells in monitoring network. Provides the prediction limit value (background level).
Table 6 Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances	Table 4.4 Intra-Well Comparisons of Monitoring Data vs. Baseline UPLs	Compares current reporting period's groundwater data to the prediction limit value (control limit).
Table 7 Summary of Ongoing and Newly Identified Control Limit Exceedances	--	Table 7 is provided to IDNR.
Table 8 Analytical Data Summary	Table 4.1 Cumulative Groundwater Analytical Summary	Provides groundwater analytical data at the CCR Monofill.
	Table 4.2 Groundwater Analytical Data	Provides groundwater analytical data for the current reporting period at the CCR Monofill.
Table 9 Historic Control Limit & Action Level Exceedances	--	Table 9 is provided to IDNR.
Table 10 Groundwater Quality Assessment Plan Trend Analysis	Section 4 Groundwater Monitoring	Section 4 discusses trends in groundwater data, during baseline monitoring and current reporting period.
	Table 4.5 Trend Test Results	Provides identified constituent trends for wells at the CCR monofill.
Table 11 Leachate Management Summary	Annual Leachate Report	The Annual Leachate Report documents the leachate management activities for the current reporting period. Provides analytical data, leachate head, and leachate volume measurements.
Table 12 Gas Monitoring Summary	NA	Not applicable since the CCR Monofill holds CCR and does not generate gas.

Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill

Permit 78-SDP-26-06P
Walter Scott Jr. Energy Center
Council Bluffs, Iowa

MidAmerican Energy Company

January 30, 2026

→ The Power of Commitment

Certification

Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill
Permit 78-SDP-26-06P
Walter Scott Jr. Energy Center
Council Bluffs, Iowa
MidAmerican Energy Company

I certify this Annual Groundwater Monitoring and Corrective Action Report meets the requirements of 40 CFR §257.90(e).

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Michael J. Alowitz, P.E.

1/30/2026
Date

License Number: 18160

My license renewal date is: December 31, 2026

Pages or sheets covered by this seal: Entire Document

Executive summary

In compliance with 40 CFR §257.90(e)(6), this executive summary provides an overview of the current status of groundwater monitoring and corrective action programs for Walter Scott Jr. Energy Center coal combustion residual (CCR) Monofill located near Council Bluffs, Iowa.

Item	Current Status
(e)(6)(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	At the start of the current annual reporting period, this CCR unit was operating under the detection monitoring program (40 CFR §257.94).
(e)(6)(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;	At the end of the current annual reporting period, this CCR unit was operating under the detection monitoring program (40 CFR §257.94).
(e)(6)(iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this Part pursuant to §257.94(e):	
Identify those constituents listed in appendix III to this Part and the names of the monitoring wells associated with such an increase; and	Verified statistically significant increases were detected for the following Appendix III constituents during the calendar year 2025 reporting period: – Boron at MW-133 and MW-248 – Calcium at MW-156, MW-245, and MW-250 – Chloride at MW-105, MW-133, MW-157, and MW-250 – pH at MW-244 – Sulfate at MW-105, MW-156, MW-191, MW-227, MW-245, and MW-250 – TDS at MW-105 and MW-250
Provide the date when the assessment monitoring program was initiated for the CCR unit.	An alternate source demonstration was completed and this CCR unit was determined to not be the source of the SSIs; therefore, an assessment monitoring program has not been initiated for this CCR unit.
(e)(6)(iv) If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this Part pursuant to §257.95(g) include all of the following:	
Identify those constituents listed in appendix IV to this Part and the names of the monitoring wells associated with such an increase;	Monitoring for Appendix IV constituents was not completed for this CCR unit during the 2025 annual reporting period because the CCR unit is in detection monitoring.
Provide the date when the assessment of corrective measures was initiated for the CCR unit;	A corrective measures assessment is not required for this CCR unit.
Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and	A public meeting for assessment of corrective measures is not required for this CCR unit.
Provide the date when the assessment of corrective measures was completed for the CCR unit.	A corrective measures assessment is not required for this CCR unit.
(e)(6)(v) Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and	A remedy selection is not required for this CCR unit.
(e)(6)(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.	No remedial activities pursuant to §257.98 occurred during the current annual reporting period for this CCR unit.

Contents

Certification i

Executive summary ii

1. Introduction 1

1.1 Purpose of this Report 1

2. Groundwater Monitoring Activities 1

2.1 Groundwater Monitoring Network 1

2.2 Monitoring Well Inspection 2

2.3 Sample Collection 2

2.4 Analytical Parameters 3

3. Groundwater Flow Conditions 3

3.1 Drought Conditions 3

3.2 Horizontal Groundwater Flow 6

3.3 Horizontal Gradient and Groundwater Flow Velocity 6

3.4 Monitoring Well Network Assessment 7

4. Groundwater Monitoring 7

4.1 Statistical Analysis Overview 7

4.2 Intra-Well Prediction Interval Comparisons 8

4.2.1 Baseline Data 8

4.2.2 Stability Assessment/Baseline Period Trend Analysis 9

4.2.3 Intra-Well UPL Calculations 9

4.3 Trend Testing 10

4.4 Evaluation of 2025 Detection Monitoring Data 10

4.4.1 Intra-well Comparisons (vs. Well-Specific Baseline Values) 11

4.4.2 Trend Tests Results 11

4.4.3 Descriptive Statistics and Water Quality Standards Comparisons 12

4.4.4 Discussion and Summary of Statistical Data Assessment 12

5. Alternate Source Determination 13

5.1 New SSIs To Be Evaluated 13

5.2 Description of Alternate Source Determination 13

5.3 Monofill Is Not Source of Groundwater Impacts 13

5.4 Alternate Source Determination Conclusion 14

6. Conclusions and Recommendations 14

6.1 Groundwater Flow and Evaluation of the Monitoring Network 14

6.2 Groundwater Quality 14

6.3 Recommendations 14

7. References 15

Table index

Table 2.1 Groundwater Monitoring Well Network
Table 2.2 Well Construction Details
Table 2.3 Monitoring Well Screen Occlusion Evaluation
Table 2.4 Appendix III Parameters (Detection Monitoring)
Table 2.5 Appendix IV Parameters (Assessment Monitoring)
Table 2.6 Summary of Groundwater Monitoring Events
Table 3.1 Groundwater Elevation Summary
Table 3.2 Horizontal Gradients and Average Groundwater Flow Velocities
Table 4.1 Cumulative Groundwater Analytical Data Summary
Table 4.2 2025 Groundwater Analytical Data
Table 4.3 Intra-Well Comparison Values
Table 4.4 Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Table 4.5 Mann-Kendall Trend Test Results

Figure index

Figure 1.1 Site Location Map
Figure 1.2 Site Map and Monitoring Network
Figure 1.3 Aerial Photo and Background Monitoring Locations
Figure 3.1 Groundwater Flow Map – January 22, 2025
Figure 3.2 Groundwater Flow Map – March 31, 2025
Figure 3.3 Groundwater Flow Map – June 11, 2025
Figure 3.4 Groundwater Flow Map – July 24, 2025
Figure 3.5 Groundwater Flow Map – September 29, 2025
Figure 3.6 Groundwater Flow Map – December 8, 2025

Appendices

Appendix A Groundwater Sample Collection Records
Appendix B Laboratory Analytical Reports
Appendix C Time Series Graphs
Appendix D Alternate Source Demonstration

1. Introduction

1.1 Purpose of this Report

This Annual Groundwater Monitoring and Corrective Action Report was prepared by GHD on behalf of MidAmerican Energy Company (MidAmerican) in compliance with the Federal Coal Combustion Residual (CCR) rule (40 CFR Part 257) for the Walter Scott Jr. Energy Center (WSEC) Monofill located near Council Bluffs, Iowa. The Monofill is located in portions of the SW ¼ of Section 31 Township 74N, and Range 43W; the NW ¼ of Section 6, Township 73N, Range 43W; and the NE ¼ of Section 1, Township 73N, and Range 44W in Pottawattamie and Mills Counties, Iowa. The site location map is shown on Figure 1.1, and the Monofill extent and monitoring well locations are shown on Figure 1.2. Figure 1.3 shows the background monitoring well locations and the Monofill location.

MidAmerican initiated baseline groundwater monitoring in accordance with the Federal CCR rule in March 2016. Subsequent changes to the monitoring well network were certified on January 20, 2020, November 30, 2021, and January 11, 2023, to reflect changes required due to expansion of the monofill. Two semiannual detection monitoring events were conducted during 2025 (March 31 through April 3, 2025, and September 29 through October 2, 2025) and two verification groundwater monitoring events (June 11 through 12, 2025 and December 9, 2025) were conducted to evaluate statistically significant increases (SSIs) measured during the detection monitoring events.

The alluvial aquifer is considered a contiguous unit with a single water table. Bedrock was not encountered in a boring drilled at the site to a depth of approximately 117 feet below ground surface, however, bedrock at the site is believed to be either shale or limestone. In general, the subsurface geology at the Monofill consists of layers of sands, silts, and clays which are consistent with alluvial flood plain deposits.

2. Groundwater Monitoring Activities

2.1 Groundwater Monitoring Network

The groundwater monitoring network consists of 31 monitoring wells (Table 2.1). At the outset of 2025, 32 monitoring wells were included in the Monofill monitoring network, however, damage to MW-303 necessitated decommissioning of the well during June 2025. Because MW-303 was not located in a critical location and was only used for water level gauging, the well was not replaced. MW-303 was plugged in accordance with Rule 567—39.8 of the Iowa Administrative Code. The groundwater monitoring network includes monitoring wells used for collection of groundwater samples and for gauging groundwater elevations. Groundwater elevation data were collected from all 31 wells and groundwater samples were collected from 24 wells. Horizontal spacing between the downgradient alluvial aquifer monitoring wells Range s from approximately 400 to 600 feet. Groundwater samples are used to assess potential impacts of the WSEC Monofill on surrounding groundwater. Groundwater elevation data are used to identify upgradient and downgradient monitoring points and to determine the potential influence of the Missouri River on groundwater conditions. Well construction details are provided in Table 2.2.

In recent years, groundwater flow direction at the Monofill varied due to the stage height of the Missouri River and variable amounts of precipitation in the general area of the site. The upgradient, downgradient, and background classifications of the site monitoring wells as noted on Table 2.1 were based on the general groundwater flow direction inferred during the 2016 and 2017 baseline monitoring events. With the variable groundwater flow directions in more recent years, the classification of some monitoring wells may have varied during recent compliance groundwater monitoring events. In addition, expansion of the Monofill brought the CCR disposal unit in closer proximity to the original background monitoring well (MW-133). With the variable groundwater flow direction and Monofill expansion,

the original upgradient background monitoring well (MW-133) could potentially be affected by leachate leakage or a release of CCR from the Monofill.

Baseline sampling for four new upgradient background monitoring wells (MW-34, MW-307, TW-1, and TW-2) was completed from July 2020 through April 2022 to more accurately represent the quality of background groundwater quality. Three of the 31 monitoring wells were constructed February 19 and 20, 2024, to address lower water table elevations due to drought conditions in the area. These three new deeper wells (MW-156D, MW-227D, and MW-307D) were sampled in January, April, July, and October 2025 completing seven of eight baseline sampling events; the eight baseline monitoring event is scheduled to be completed during 2026.

All monitoring wells in the groundwater monitoring system consist of 2-inch nominal inner-diameter polyvinyl chloride (PVC) casing and screen. Monitoring well construction included placement of clean silica sand in the screened interval and an annular seal of bentonite to the near surface. Monitoring well surface completions consist of either a lockable stick-up surface casing set in a concrete pad and placement of protective bollards in locations where traffic may be of concern, or a flush mount cover with a watertight well plug in high traffic areas where a stick-up well is not suitable. Review of monitoring records and well inspections indicate the monitoring wells have been operated and maintained adequately to meet the design specifications of the monitoring program.

2.2 Monitoring Well Inspection

During each sampling event, the monitoring wells were visually inspected, and deficient conditions of the monitoring wells (if present) were noted on the field forms (Appendix A). Wells are maintained with a well cap and a lockable protective casing. Observations include the condition of the protective casing/vault and surrounding ground surface. The wells were found to be in generally good condition, with no issues affecting well or sample integrity. Locks were noted to be missing on some wells and were replaced.

On an annual basis, the total well depth of each well in the monitoring network is measured to evaluate the well condition and potential sediment accumulation in the well. Total well depth measurements and screen occlusion calculations from the 2025 total depth measurements are presented in Table 2.3. If screen occlusion greater than 10 percent is verified to be present, the well will be redeveloped prior to the next sampling event. All wells were below 10% screen occlusion.

Some of the monitoring wells were measured at total depths greater than the total well depth on the original monitoring well logs, which results in a negative percent screen occlusion. It is assumed the recent total depth measurements are correct and reflect final well construction.

2.3 Sample Collection

Sampling was conducted using dedicated bladder pumps to purge water and collect samples using low-flow sampling techniques. Due to drought conditions, some wells did not contain sufficient water for sampling (MW-156 and MW-227 during the April 2025 event).

Prior to sample collection, temperature, conductivity, pH, oxidation-reduction potential (ORP), dissolved oxygen, and turbidity of the purge water were measured using a calibrated multiparameter water quality instrument and flow cell. The readings were recorded on well sampling records or in a field notebook. Upon stabilization, unfiltered samples were collected in laboratory-supplied containers. Copies of the groundwater sampling records for the 2025 monitoring events are provided in Appendix A. During the April and October 2025 monitoring events, field duplicate samples were collected from monitoring well MW-105 and MW-240R for quality assurance/quality control (QA/QC) purposes. A duplicate was collected at MW-248 during the June 2025 verification event and at MW-245 during the December 2025 verification event.

2.4 Analytical Parameters

Groundwater samples were analyzed for the parameters specified in 40 CFR Part 257 Appendix III (Table 2.4) for the two detection monitoring events. The three new wells (MW-156D, MW-227D, and MW-307D) where baseline monitoring is being conducted were analyzed for both Appendix III and Appendix IV parameters. The laboratory analyses were conducted by Eurofins Environment Testing North Central, LLC (Eurofins) in Cedar Falls, Iowa; the radium 226 and 228 (combined) analyses were conducted by Eurofins in St. Louis, Missouri. Analyses were conducted by the laboratory in accordance with the procedures and methods described in the United States Environmental Protection Agency (USEPA) Manual SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (September 1986)," as updated and/or in accordance with other approved testing procedures. Eurofins provided prepared sample containers for each monitoring event. Analytical reports from each sampling event report total (i.e., unfiltered) sample results in accordance with the Federal CCR rule.

The Appendix IV analytes (applicable to baseline and assessment monitoring events) are listed in Table 2.5. Table 2.6 summarizes the number of groundwater samples collected for analysis from each monitoring well, the dates the samples were collected, and whether the sample was required by the baseline, detection monitoring, or assessment monitoring programs.

Following receipt of the final laboratory analytical reports from each round of sampling, GHD completed an analytical data quality assessment and validation for the groundwater and field quality assurance samples collected during the baseline and initial detection monitoring events. Based on these assessments, the data are acceptable for use as reported by the laboratories.

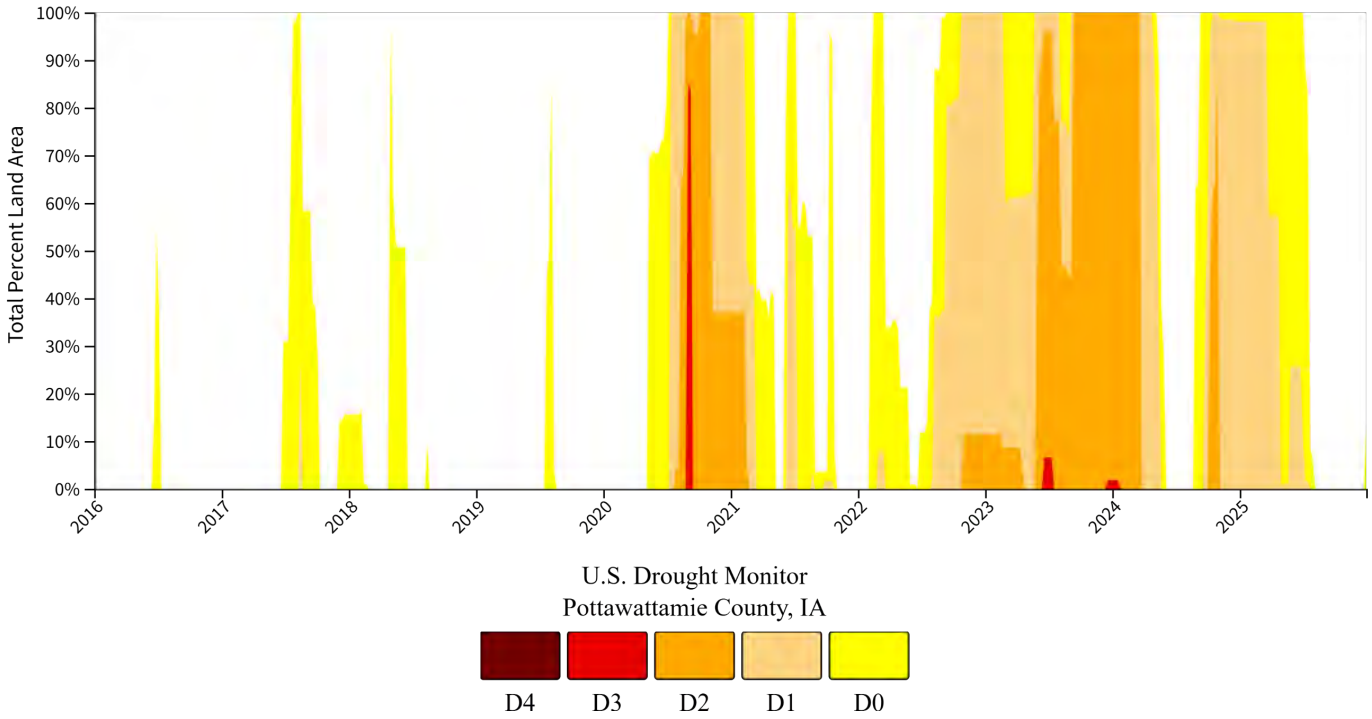
3. Groundwater Flow Conditions

Groundwater levels were measured at each of the monitoring wells included in the monitoring network during each monitoring event. Table 3.1 presents groundwater elevations measured in wells during the January, March, June, July, September, and December 2025 monitoring events as well as past gauging events.

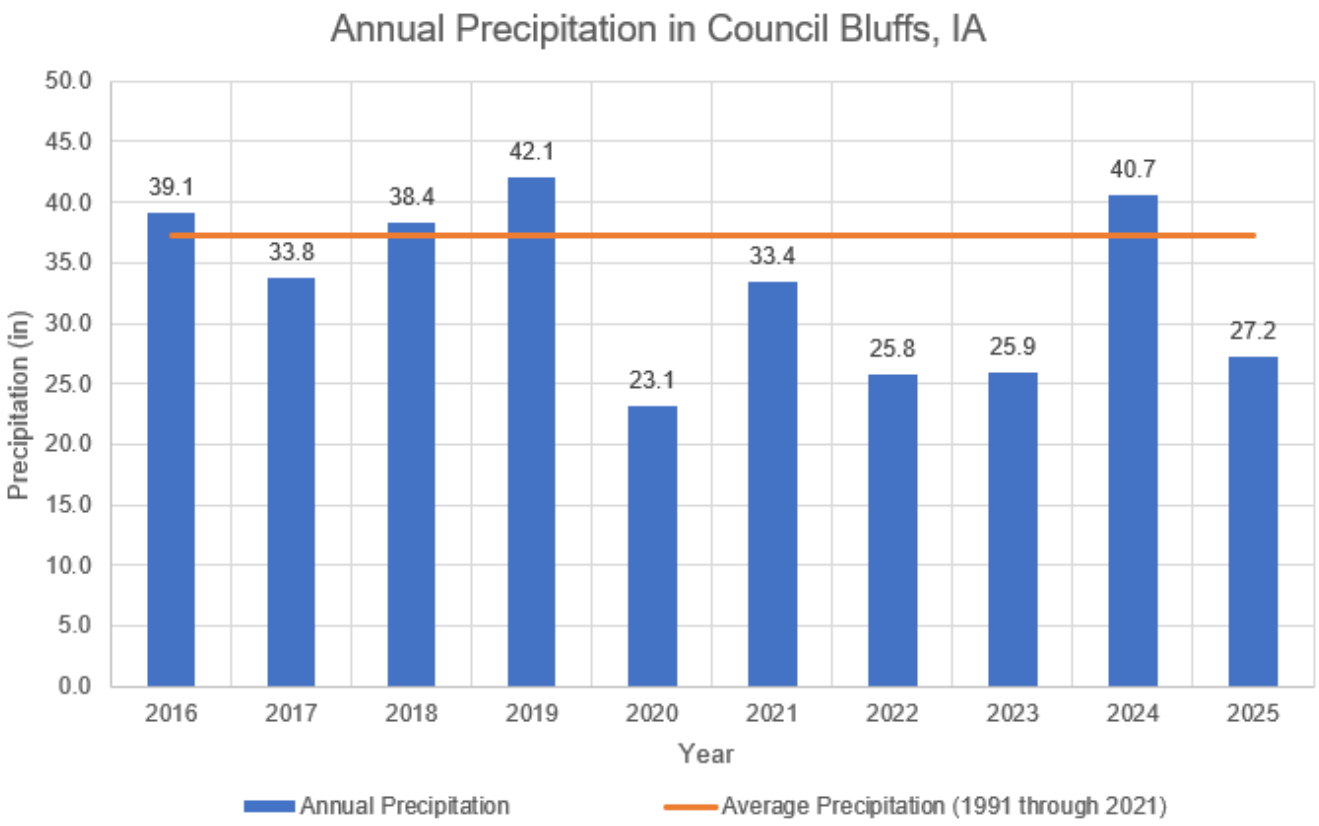
3.1 Drought Conditions

Groundwater level data have been collected from 2016 through 2025; the groundwater elevations declined in the last few years, reflecting drought conditions in the area. As shown in Inset 1, the U.S. Drought Monitor reported 100 percent of the land in Pottawattamie County as D2 Severe Drought or D1 Moderate Drought throughout a large Part of 2020 and early 2021. In late 2020, a large portion of the county was classified as D3 Extreme Drought. The dry conditions continued from mid-2020 through mid-2021 and then fluctuate for the rest of the year and into 2022 with the classification of D0 Abnormally Dry. From mid-2022 to mid-2024, the entire county is reported to be dry, significant enough to warrant a D0 or higher rating. During 2023, the U.S. Drought Monitor showed 100 percent of land area in Pottawattamie County in a D2 Severe Drought or worse. Despite precipitation above the average in 2024, during December 2024, 98.57 percent of land area in Pottawattamie County was classified in a D1 moderate drought, with 100 percent classified as D0 abnormally dry. During 2025, 100 percent of land area was classified as at least D0 abnormally dry through July. From August through late December 2025 no Part of Pottawattamie County was considered in drought conditions. In late December 2025, a portion of Pottawattamie County (including the WSEC facility) re-entered D0 abnormally dry conditions.

The average rainfall for the Council Bluffs area is 37.2 inches (1991 through 2021); annual precipitation since 2016 (when groundwater monitoring began under the Federal CCR rule) is shown in Inset 2. Over the 2016 through 2025 period, annual precipitation was below average during 2017 and 2020 through 2023. During 2024, precipitation levels returned to higher than average, but the area remained in drought conditions for most of the year (Inset 1). Over the past 6 years (2020 through 2025), only one year (2024) since 2019 reached or exceeded the average precipitation for the area.

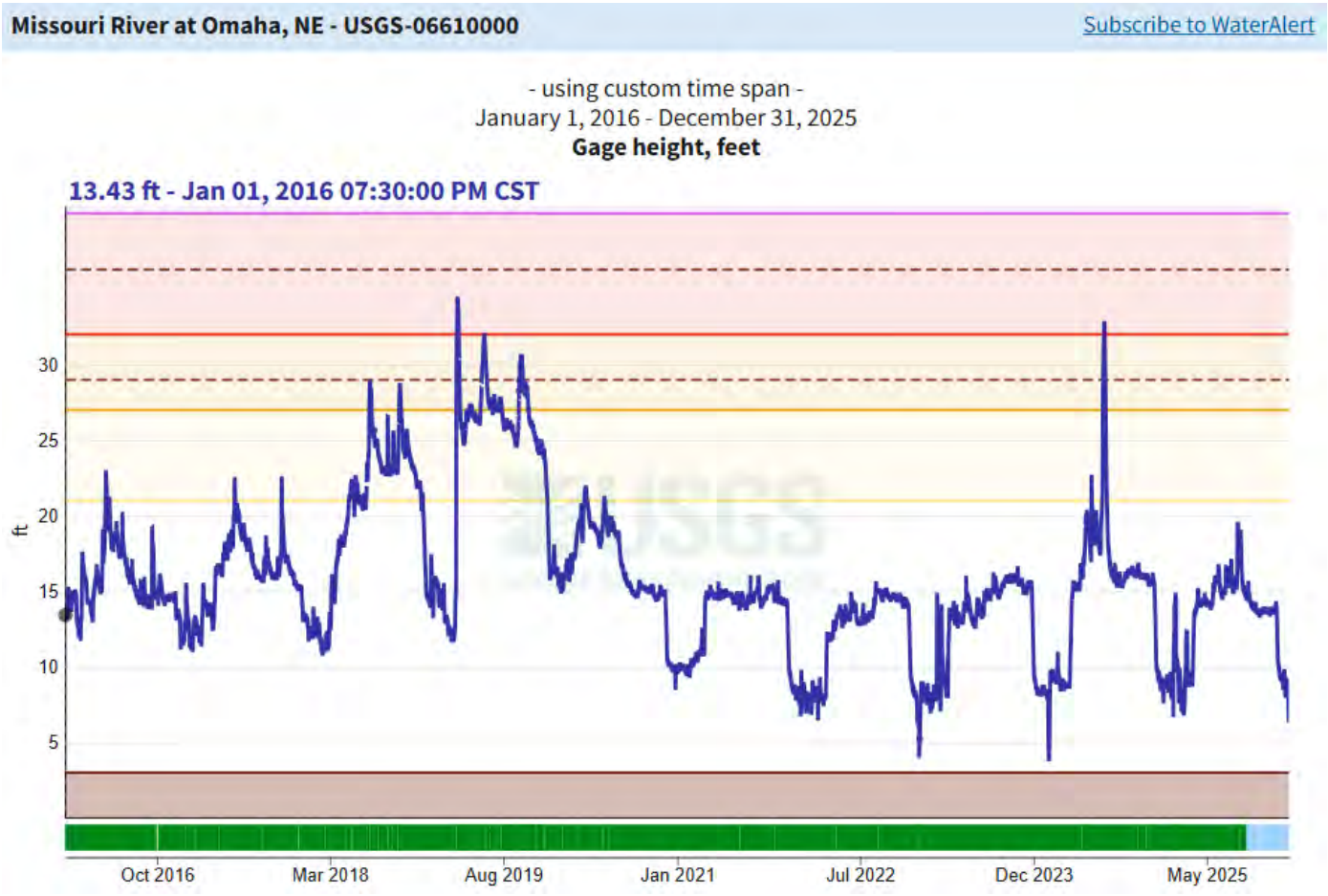


Inset 1. Drought conditions for Pottawattamie County. Pottawattamie County Conditions | Drought.gov https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx



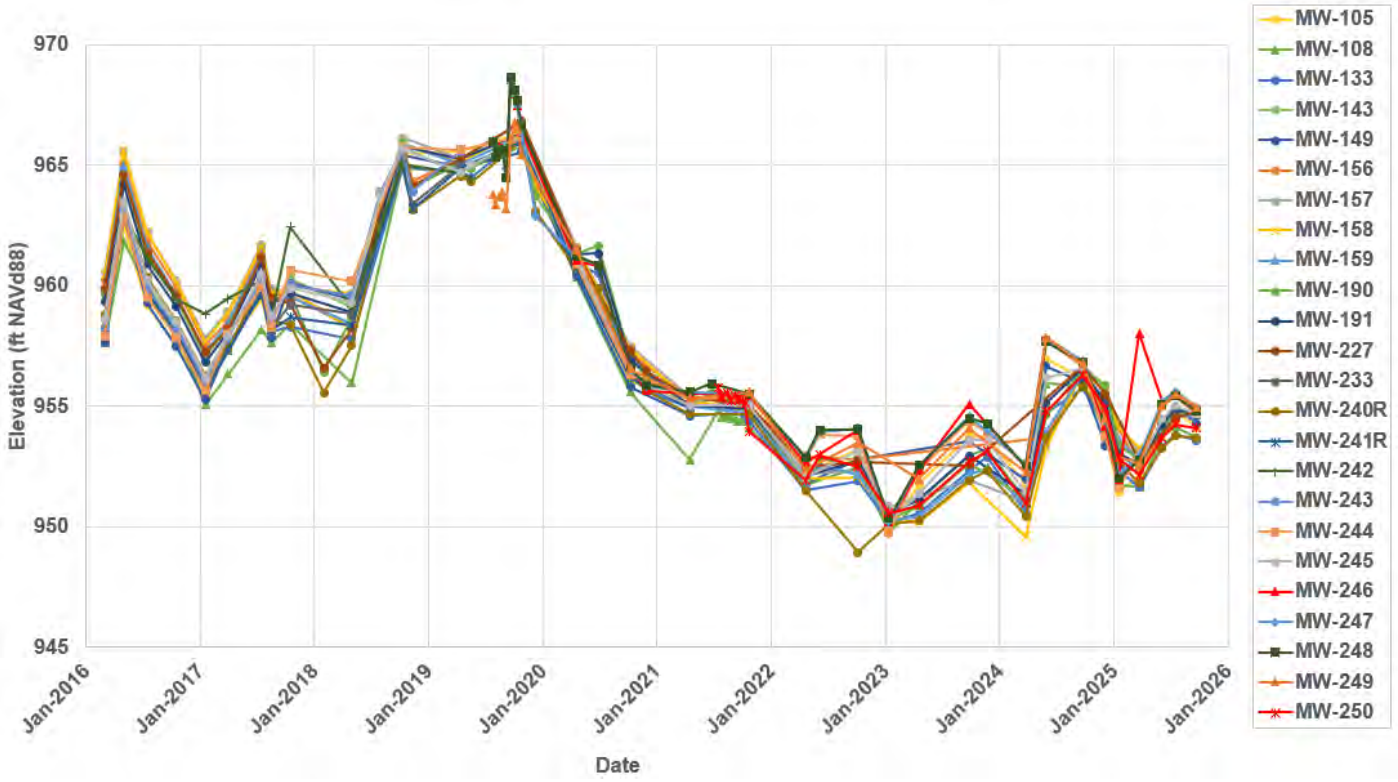
Inset 2. Precipitation in Council Bluffs area through 2025. https://hprcc.unl.edu/stationtool/explore.php?sid=IAPT0013

During 2018 and 2019, releases from the Missouri River reservoir system upstream to the site were higher than average. During 2020 and continuing through 2023, releases into the Missouri River from the reservoir system decreased river stage near the site (Inset 3) and reduced precipitation occurred (Inset 2). Increased precipitation occurred during 2024. During 2025, river stages were similar to observations from 2020 through 2023.



Inset 3. Missouri River elevations at Omaha, Nebraska. Missouri River at Omaha, NE - USGS Water Data for the Nation

Inset 4 illustrates groundwater elevations at the Monofill. The highest groundwater elevations over the monitoring period were generally observed during 2019 followed by a decline in elevations with the drought. The lowest groundwater elevations were measured in late 2022 into early 2024. There was an increase in groundwater elevations during the latter portion of 2024 and 2025 compared to recent years, but elevations remained below the highs observed in 2019. As a result of the reduced releases from the Missouri River reservoir system and reduced precipitation, groundwater elevations measured in site monitoring wells decreased during 2020 through 2025 compared to 2019 and prior years.



Inset 4. Hydrograph of Monofil monitoring wells.

3.2 Horizontal Groundwater Flow

Groundwater levels were measured at each of the monitoring wells included in the monitoring network during each monitoring event. Table 3.1 presents groundwater elevations measured in wells during the 2025 and prior gauging events. Groundwater flow maps were prepared using water level measurements from the 2025 WSEC CCR Monofill monitoring events (Figures 3.1 through 3.6).

The groundwater flow direction varied during the 2025 monitoring events. During the winter months (January 2025 and December 2025), groundwater flow was generally towards the northwest, towards the Missouri River. During the other monitoring events, groundwater flow directions were more complex across the site, with flow components ranging from north to south across the site and the events.

Groundwater flow during the 2016 and 2017 baseline monitoring events was generally to the northwest at the site. Variable groundwater flow directions observed during the 2018 and 2019 compliance monitoring events when compared to the baseline monitoring events could have been influenced by higher-than-average surface elevation (stage) of the Missouri River. During 2018 and 2019, releases from the Missouri River reservoir system upstream to the site were higher than average due to higher runoff in the river basin. The variability in groundwater flow direction ate the Monofill demonstrates the effects of river stage and precipitation conditions.

3.3 Horizontal Gradient and Groundwater Flow Velocity

Based on in-situ permeability tests conducted at the site, hydraulic conductivity at the site is approximately 2.87 meters per day (m/day) [9.41 feet per day (ft/day)] in the upper portion of the water table aquifer.

The average horizontal linear groundwater velocity was estimated based on hydraulic conductivity, horizontal gradient, and the estimated porosity of the formation using the following equation:

$$V = Ki/n$$

Where V equals the average horizontal linear velocity; K equals the geometric mean hydraulic conductivity (2.87 m/day); i equals the average horizontal hydraulic gradient; and n equals the effective porosity (estimated at 0.3). During the 2025 monitoring events at the WSEC CCR Monofill, the average linear groundwater velocity was estimated to Range between 0.001 m/day (approximately 1 foot per year) during the March 2025 monitoring event and 0.014 m/day (approximately 17 feet per year) during the September 2025 monitoring event. The estimated horizontal gradients and average linear groundwater flow velocities for each of the monitoring events are summarized in Table 3.2.

3.4 Monitoring Well Network Assessment

The WSEC CCR Monofill monitoring network meets the Federal CCR rule requirements of having at least one upgradient monitoring well and three downgradient monitoring wells, and the groundwater monitoring network meets the design and construction requirements of 40 CFR §257.91 (GHD, 2024).

4. Groundwater Monitoring

Groundwater sample collection records for the 2025 monitoring events are provided in Appendix A and the associated laboratory analytical reports are provided in Appendix B. Appendix C includes time series graphs of concentration versus time for each analyte in the current monitoring program. Cumulative analytical results for groundwater samples collected over the course of monitoring under the Federal CCR rule (March 2016 through 2025) are presented in Table 4.1. Data from the 2025 monitoring events are presented in Table 4.2.

Under the Federal CCR rule, data obtained are to be subjected to statistical evaluation to demonstrate compliance with monitoring goals. Specifically, requirements for groundwater monitoring and corrective action are presented in 40 CFR §257.90 through 257.98, and the statistical methods used in the evaluation are presented in the Groundwater Statistical Methods Certification (Methods Certification) (Terracon, 2017). The procedures in the Methods Certification were selected in accordance with the Federal CCR rule, using methodology presented in the USEPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (Unified Guidance) (USEPA, 2009). Details of the evaluation approach and findings are presented below.

4.1 Statistical Analysis Overview

As Part of assessment and reporting requirements under the Federal CCR rule, groundwater monitoring data are subjected to statistical evaluation to demonstrate compliance with monitoring goals. Groundwater monitoring at WSEC Monofill is currently conducted under Detection Monitoring status under the Federal CCR rule. As per the Methods Certification, the evaluation components include:

- Intra-well prediction interval comparisons (current vs. baseline conditions at a given well), including statistical summaries for the baseline data sets.
- Assessment of statistical trends over time (Sen's Slope Estimator/Mann Kendall Test), including the preparation of trend plots (concentration vs. time).
- Detection verification (confirming any initial increases with a verification resample).

Although not specified in the statistical certification, should the occurrence of previously undetected monitoring parameters at a given well be observed, the data would be evaluated using USEPA's Double Quantification Rule (DQR) to identify statistically significant increases above baseline (USEPA, 2009). The DQR specifies that two consecutive detected concentrations (i.e., above the reporting limit) indicate a statistically significant increase above a baseline consisting of entirely non detect (or J-qualified below the laboratory reporting limit) data.

The results of the intra-well UPL comparisons are used in conjunction with detection verification to identify statistically significant increases (SSIs). The results of trend tests are used in conjunction with the SSI determinations to provide an overall assessment of evidence for or against any impact of the CCR Monofill on groundwater.

As noted in the Method Certification, if changes in governing regulations, guidance, regional groundwater conditions or other influential factors are noted, the statistical approach could change. If such a change is warranted, a modification to the statistical approach consistent with the CCR Rule would be recommended for one or more constituents and/or monitoring wells.

4.2 Intra-Well Prediction Interval Comparisons

In the Methods Certification, the use of intra-well upper prediction limits (UPLs) was selected as appropriate for assessment of groundwater monitoring data for the WSEC Monofill. A UPL is a statistically based value above which one or more future sample measurements are unlikely to occur if future conditions remain consistent with the reference population. Intra-well comparisons utilizing baseline UPLs consist of two actions:

1. Calculating UPL values for each parameter at each well based on a baseline data set.
2. Comparing individual post baseline data against the UPL values to determine if an increase occurred.

Methods for assessing, testing and accommodating each of these assumptions / data characteristics are provided in the Unified Guidance (USEPA, 2009).

4.2.1 Baseline Data

The specific statistical calculation method for each UPL value takes into consideration data characteristics, such as the observed data distribution, the presence of statistical outliers, the occurrence of censored data (non-detect results), and non-stationarity within the baseline period (i.e., trends).

Statistical UPLs were calculated for each monitoring constituent at each well considering the baseline period data, against which future monitoring results from the same well were compared. For any monitoring constituents that are not detected above the laboratory reporting limit during the baseline period, the reporting limit is used as the UPL.

The number of baseline data required for establishing an intra-well UPL is not specified in the Statistical Method Certification, however a minimum of 8 data points is typically recommended under the Unified Guidance (USEPA, 2009).

Originally, baseline monitoring under the Federal CCR rule occurred at the WSEC Monofill during eight monitoring events conducted between March 2016 and August 2017. Due to varying flow regimes and monofill expansion, new background wells were identified: MW-34, MW-307, TW-1, and TW-2 (Figure 1.3). Baseline sampling of these locations was initiated in July 2020 and completed in April 2022 for most locations (low groundwater elevations precluded collection of the eighth baseline sample from MW-307). In the 2021 Annual Report (Terracon, 2022), the baseline period for most of the downgradient wells (all but MW-105, MW-108 and MW-250) was extended to include the first 12 sampling events at each of the wells. The baseline data for all wells are indicated in the cumulative data summary provided in Table 4.1. Due to regional drought conditions, deeper monitoring wells (MW-156D, MW-227D, and MW-307D) were installed in February 2024 adjacent to three of the monitoring wells in the Monofill monitoring network that were periodically not able to be sampled due to low water levels. The original wells and the deeper wells (with the D modifier) are both incorporated into the Monofill monitoring network. Seven of the eight baseline events for the new deeper wells have been completed to date. Therefore, UPLs will be calculated next year (2026), or when the minimum of 8 samples is achieved.

If additional changes (i.e., trends) in regional conditions continue in the future, the baseline assessment may be revised accordingly (e.g., by extending or updating the baseline period). Assessment of the baseline data for WSEC Monofill is presented in the following sections.

4.2.2 Stability Assessment/Baseline Period Trend Analysis

The assessment of temporal trends is included as a precursor to intra-well comparisons, as the statistical methods for these comparisons assume that a stable condition is present in the reference data set (i.e., the baseline period). Where a trend is identified, the comparison procedures must be adjusted to take this into account. Trend tests were carried out according to the same methods described below in Section 4.3.

Significant trends were identified for several of the intra-well baseline data sets (Table 4.3), which are summarized below:

Increasing trends in the baseline data set were found for the following wells/constituents:

- Boron at MW-108 and MW-158
- Calcium at background well TW-2 and MW-190
- Chloride at background well TW-1, MW-133, MW-156, MW-157, and MW-227
- Sulfate at background well TW-1, MW-105, MW-190, MW-227, and MW-245
- TDS at MW-190

Decreasing trends were found for the following wells/constituents:

- Chloride at MW-247
- Fluoride at MW-248
- pH at MW-247 and MW-248
- Sulfate at MW-156
- TDS at MW-108

Where temporal trends were identified over the baseline period, prediction limits are not calculated due to violation of the statistical assumptions of the UPL calculations, and a baseline Range is provided as a reference. For such data sets, future sample results are to be compared both against the baseline Range and what would be expected based on the observed trend over the baseline period.

4.2.3 Intra-Well UPL Calculations

The intra-well statistical UPLs are based on a “1-of-2” retesting plan and cumulative annual site-wide false positive rate (SWFPR) of 0.10, as described in Chapter 19 of USEPA’s Unified Guidance (USEPA, 2009 – see page 19-11). This means there is 90 percent confidence site-wide (for 17 downgradient wells, 7 Appendix III constituents, and semiannual sampling) that constituent concentrations above the baseline UPL in both original and verification resampling samples indicate a true SSI. Note that in cases where a non-parametric (rank-based) UPL is required (due to high proportions of non-detects, the presence of statistical outlier(s) in baseline, and/or non-normal data distributions), the level of statistical confidence is lower than this target.

Similarly, for constituents that are not detected during the baseline period, the DQR identifies an SSI when both regular monitoring and subsequent resampling event samples have constituent concentrations above the reporting limit where the corresponding baseline data set consists entirely of non-detect results (including estimated J-qualified results below the reporting limit).

Calculations of UPLs for intra-well comparisons were completed using the logic and methodology presented in USEPA’s Technical Guide for its ProUCL software (USEPA, 2022, version 5.2). The calculated intra-well baseline values (UPLs) for each constituent at each well are provided in Table 4.3.

4.3 Trend Testing

As noted in the Methods Certification, trends tests are included in the groundwater monitoring data assessment. Specifically, the Mann-Kendall (M-K) trend test and Sen's Slope Estimator are used. The Mann-Kendall test is commonly applied to environmental monitoring data (USEPA, 2009; United States Geological Survey (USGS), 2020).

It is a non-parametric (rank-based) method that evaluates a set of data for a monotonic (unidirectional) trend result. The procedure makes no assumptions regarding the shape of the trend (e.g., linear, log linear), except that the trend is in a single direction (i.e., either consistently upward or downward).

In implementing the Mann-Kendall trend test, a two-sided significance level of 0.05 (i.e., 95 percent confidence) was used. Performing the trend tests at a confidence level of 0.05 results in a false positive rate (concluding a significant trend when none is present) of 5 percent.

The following approach was used to accommodate the presence of censored data (non-detect results) in many data sets. If a given data set contained more than 50 percent non-detects or had fewer than 4 detected results, no trend testing was performed. Otherwise, any non-detect results were considered to be tied (of equal value) and having lower concentrations than any detected values. This assumption was made to prevent any variation in detection limits influencing the Mann-Kendall trend test results. The data were also screened for any cases where low-level detections (e.g., J-qualified estimated values) were present below reporting limits resulting in ambiguous comparisons with non-detect results and required accommodation on a case-by-case basis (e.g., treating the low detect as a non-detect or excluding non-detect results from the trend test). If a dataset consisted entirely of non-detects, or had less than 4 detected results, no trend test was performed.

Field duplicate results were averaged prior to completing the trend analyses. If one field duplicate was a detected value and the other a non-detect, the detected result was conservatively retained to represent a maximum estimate of the analyte concentration.

The Mann-Kendall trend test requires that sampling frequencies be consistent, at least approximately, over the time frame considered. In the data sets considered, this assumption was generally not met, with variation in sampling frequencies observed during the earlier period (2016 to 2018) and during verification sampling events, where not all analytes were sampled. The approach used to accommodate variation in sampling frequency was to pre-process the data to obtain a more consistent time interval based on the current sampling frequency. Verification sampling events were not included in the trend tests.

4.4 Evaluation of 2025 Detection Monitoring Data

The 2025 monitoring data for the WSEC Monofill are presented in Table 4.2. Groundwater monitoring at the WSEC Monofill is currently conducted under Detection Monitoring status per the Federal CCR rule. As such, the seven Appendix III constituents were analyzed in samples collected during two 2025 detection monitoring events (April and October) at background and downgradient wells. Verification sampling events were conducted in June and December 2025 for select Appendix III constituents that were previously detected above comparison values in accordance with 40 CFR §257.95(d)(1). The specific wells that were resampled during the verification events are identified in Table 2.6.

Appendix III constituent data sets from sampling conducted during 2025 (two detection monitoring events and two verification events) are presented in Table 4.2 and summarized below. Appendix IV analytes were not analyzed in the majority of samples collected during the 2025 monitoring events, since they are not required for a detection monitoring program; Appendix IV analytes were analyzed for wells where baseline conditions are currently being evaluated (MW-156D, MW-227D, and MW-307D) and at the background wells (MW-34, MW-307, TW-1, and TW-2), which also serve as background wells for the WSEC North-South Impoundment CCR unit.

4.4.1 Intra-well Comparisons (vs. Well-Specific Baseline Values)

Intra-well comparisons of current monitoring data are conducted by comparing monitoring results from the 2025 sampling events to the baseline period UPLs for each given well. These comparisons are presented in Table 4.4 which also includes 2024 data to illustrate well-constituent combinations where verification in 2025 was needed to assess a potential SSI.

During 2025, fluoride results had a reporting limit of 1 milligrams per liter (mg/L), which was above the 0.5 mg/L reporting limit during the baseline monitoring results; the great majority of 2025 fluoride results were non detect (except at well MW-108 in April 2025). The October 2025 detection monitoring event also had a boron reporting limit of 0.500 mg/L, where dilutions were required, which is higher than the established baseline UPLs at multiple locations. The results of the 2025 intra-well comparisons indicate the Appendix III constituent concentrations listed below are above those observed during the baseline period:

- Boron at MW-133 and MW-248
- Calcium at MW-105, MW-156, MW-244, MW-245, and MW-250
- Chloride at MW-105, MW-108, MW-133, MW-156, MW-157, MW-248, and MW-250
- pH at MW-105, MW-108, MW-133, MW-156, MW-159, MW-240R, MW-244, MW-245, MW-247, and MW-250
- Sulfate at MW-105, MW-156, MW-191, MW-227, MW-244, MW-245, MW-248, and MW-250
- TDS at MW-105, MW-248, and MW-250

Of these 2025 observations, the following data sets represent SSIs, having two consecutive results exceeding their respective intra-well UPLs:

- Boron at MW-133 and MW-248
- Calcium at MW-156, MW-245, and MW-250
- Chloride at MW-105, MW-133, MW-157, and MW-250
- pH at MW-244
- Sulfate at MW-105, MW-156, MW-191, MW-227, MW-245, and MW-250
- TDS at MW-105 and MW-250

4.4.2 Trend Tests Results

M-K Trends Tests for each upgradient/background and downgradient well are presented in Table 4.5. Trend tests were performed considering all available data, varying for each well. Statistically significant trends ($P<0.05$, i.e., greater than 95 percent confidence) were identified for the following data sets:

Increasing trends were found for the following wells/constituents:

- Boron at MW-105, MW-157, MW-245, and MW-307 (background well)
- Calcium at MW-159, MW-190, MW-191, and MW-245
- Chloride at MW-105, MW-133, MW-156, MW-157, MW-244, MW-248, and MW-250
- pH at MW-158, MW-191, and MW-244
- Sulfate at MW-191, MW-250, and MW-307 (background well)
- TDS at MW-105 and MW-250

Decreasing trends were found for the following wells/constituents:

- Boron at MW-190
- Chloride at MW-245 and MW-246
- Fluoride at MW-191 and MW-245
- Sulfate at MW-158

– TDS at MW-158 and MW-240R

4.4.3 Descriptive Statistics and Water Quality Standards Comparisons

Where available, it is appropriate to compare the water quality parameter concentrations against applicable water quality criteria. Most of the Appendix III parameters in the CCR Rule (all but fluoride) do not have published maximum contaminant levels (MCLs). Note that should the Appendix IV parameters be analyzed in the future, the Appendix IV parameters will be compared to the corresponding MCL or Groundwater Protection Standard specified in the Federal CCR rule. Descriptive statistics by parameter are presented below, as well as an MCL comparison for fluoride.

– Boron. No MCL has been established for boron. The maximum boron concentration detected in 2025 was 0.651 mg/L at MW-158 (October 2025).
– Calcium. No MCL has been established for calcium. The maximum calcium concentration detected in 2025 was 363 mg/L at well MW-158 (April 2025).
– Chloride. No MCL has been established for chloride. The maximum chloride concentration detected in the 2025 detection samples was 101 mg/L at well MW-133 (April 2025).
– Fluoride. The MCL for fluoride is 4.0 mg/L. The maximum fluoride concentration detected in 2025 was 1.12 mg/L at MW-108 (April 2025).
– pH. No MCL has been established for pH. The lowest and highest pH measurement recorded in 2025 were 6.9 J at MW-108, MW-159, MW-245, and MW-250 and 7.8 J at well MW-240R (April 2025), respectively.
– Sulfate. No MCL has been established for sulfate. The maximum sulfate concentration detected in 2025 was 524 mg/L at MW-158 (April 2025).
– Total Dissolved Solids (TDS). No MCL has been established for TDS. The maximum TDS concentration in 2025 was 1,560 mg/L at MW-158 (April 2025).

4.4.4 Discussion and Summary of Statistical Data Assessment

Combining the results of the various statistical assessment elements presented above, conclusions are presented in detail below for each of the Appendix III parameters.

– Boron. An increasing trend in boron concentrations was reported at MW-105, MW-157, MW-245, and MW-307 (background well); the 2025 results are below the intra-well UPL except at MW-133, where an Alternate Source Determination (ASD) was completed (GHD, 2024). An ASD for a boron SSI at MW-248 is addressed in Section 5. No further verification or evaluation is required for boron data.
– Calcium. The 2025 monitoring data includes at least one result above the intra-well UPL for calcium at MW-105, MW-156, MW-244, MW-245, and MW-250. Increasing trends were noted at MW-159, MW-190, MW-191, and MW-245. These confirmed SSIs above the intra-well UPLs and have been addressed in ASDs (GHD, 2023, 2024, and 2025) and the MW-245 SSI is addressed in Section 5. There are no unconfirmed SSIs for calcium requiring verification.
– Chloride. During 2025, chloride SSIs were confirmed at MW-105, MW-133, MW-157, and MW-250. Increasing trends across the data set were noted at MW-105, MW-133, MW-156, MW-157, MW-244, MW-248, and MW-250. ASDs address these exceedances (GHD, 2023 and 2024). There are no unconfirmed SSIs requiring verification.
– Fluoride. In 2025, fluoride was detected above the reporting limit of 1.0 mg/L at downgradient well MW-108 in April 2025. Subsequent verification resampling in June and the October sampling yielded non-detects. No increasing trends in fluoride were identified.
– pH. During 2025, a pH SSI was identified at well MW-244. Across the 2025 monitoring program, pH was above the intra-well UPLs in April and October in the majority of wells, but the verification re-sampling measurements in June were below the UPLs. Statistically significant increasing trends were observed in the pH data at MW-158, MW-191, and MW-244. One verification sampling is required for pH at well MW-244.

- Sulfate. During 2025, sulfate SSIs were confirmed for MW-105, MW-156, MW-191, MW-227, and MW-250 and have been addressed in ASDs (GHD, 2023 and 2024). Statistically significant increasing trends were observed in MW-191, MW-250, and MW-307. As ASD for a sulfate SSI at MW-245 is addressed in Section 5. No verification sampling is required for sulfate.
- TDS. SSIs for TDS were confirmed at MW-105 and MW-250 during the 2025 monitoring period, which also had increasing trends. These exceedances have been addressed in ASDs (GHD, 2023 and 2024). No further verification sampling is required for TDS.

5. Alternate Source Determination

As described in 40 CFR §257.94(e)(2), statistically significant differences from background levels for a constituent may be evaluated to demonstrate that a source other than the CCR unit has caused the SSI or resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Alternate source determinations have been completed for the WSEC Monofill to demonstrate natural variability in background concentrations and changes due to variability in groundwater flow direction are the cause of select SSIs. In addition, a discharge of treated wastewater from the CBWPCP into the drainage way immediately adjacent to the Monofill occurred in 2019 and 2024 and appears to continue to be contributing to elevated concentrations at wells near the wastewater release.

5.1 New SSIs To Be Evaluated

SSIs not previously demonstrated to be from an alternate source are summarized below:

- MW-245 calcium and sulfate
- MW-248 boron

The identified SSIs are attributed to natural variability in groundwater quality and variations in groundwater flow directions. An ASD for these constituents is provided in Appendix D.

As demonstrated in previous ASDs, there are large temporal and spatial variations in background concentrations in groundwater across the site. The calcium concentrations at MW-245 (232 and 212 mg/L) are above the intra-well UPL of 198 mg/L but are within the Range of calcium concentrations observed in background wells (89.7 to 265 mg/L). The sulfate concentrations at MW-245 (376 and 383 mg/L) are above the intra-well UPL of 226 to 294 mg/L but are within the Range of sulfate concentrations in background wells (6.82 to 1142 mg/L). These background conditions point to natural variation and changes in the groundwater flow directions being the cause of the SSIs.

5.2 Description of Alternate Source Determination

Although SSIs were identified in groundwater, the lined WSEC Monofill is not believed to be the source of the SSIs due to the nature of the WSEC Monofill construction and operation methods. Due to natural variability in groundwater quality and the limited time frame in which the lined Monofill has been receiving CCR material, it has been determined that the Monofill is not the source of groundwater impacts.

5.3 Monofill Is Not Source of Groundwater Impacts

As demonstrated by the ASDs, the verified SSIs are not the result of a release from the site, but due to natural variability in groundwater quality due to variations in groundwater flow directions measured during compliance events compared to groundwater flow directions measured during respective background monitoring events for site wells. As a result of this ASD, the detection monitoring program will continue at the site in accordance with 40 CFR §257.94.

5.4 Alternate Source Determination Conclusion

As demonstrated in this alternate source determination evaluation, the lined WSEC Monofill is not the source of the observed SSIs in groundwater. As a result of this demonstration, the WSEC Monofill will continue with a detection monitoring program under 40 CFR §257.94(e)(2).

6. Conclusions and Recommendations

6.1 Groundwater Flow and Evaluation of the Monitoring Network

The groundwater flow direction varied during the 2025 monitoring events. Generally flowing from the Missouri River spring and summer events and flowing to the northwest toward the Missouri River during the January 2025 and December 2025 events. River stage and precipitation conditions are key factors in the variable flow directions observed at the Monofill.

The groundwater flow evaluation (see Figures 3.1 through 3.6) indicates the monitoring network is sufficient and has appropriately located upgradient and downgradient well locations.

6.2 Groundwater Quality

The statistical evaluation of groundwater monitoring data collected during the baseline period was conducted in accordance with the Federal CCR rule and Unified Guidance for assessing groundwater data (USEPA, 2009). This evaluation was successful in characterizing the baseline data sets, assessing the baseline data for trends, and generating inter-well upgradient background reference values and intra-well baseline values against which future monitoring data may be evaluated.

An assessment of monitoring data from samples collected during the 2025 detection monitoring events has been conducted. Key results of the evaluation include:

- Intra-well UPLs using the updated baseline data were compared to the 2025 detection monitoring event data. Inter-well baseline values (UPLs) were calculated on a per-constituent, per-well basis.
- Assessment of the data from the 2025 detection monitoring events indicate that:

  Intra-well comparisons indicated Appendix III constituent concentrations of boron at MW-133 and MW-248; calcium at MW-156, MW-245, and MW-250; chloride at MW-105, MW-133, MW-157, and MW-250; pH at MW-244; sulfate at MW-105, MW-156, MW-191, MW-227, MW-245, and MW-250; TDS at MW-105 and MW-250 are greater than the associated UPL for at least two consecutive results.

  ASDs demonstrate these SSIs are due to natural variation in groundwater quality and discharge of treated wastewater from the CBWPCP.
- As demonstrated in the alternate source determination evaluation, the WSEC Monofill is not the source of the observed SSIs in groundwater.
- No fluoride results were above the MCL and no MCL or groundwater protection standards are established for the other Appendix III analytes.

6.3 Recommendations

Based on the evaluation findings, the WSEC Monofill remains in detection monitoring. No changes to the monitoring network or sampling procedures are necessary.

7. References

GSE Environmental, 2013. Technical Note: Hydraulic Equivalency Comparison: CFR Prescriptive Liner System vs. Coal Ash Barrier System. GSE Website: http://www.gseworld.com/content/documents/ technical notes/Hydraulic_Equivalency.pdf, April 2013.

GHD, 2023. Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill, January 31, 2023.

GHD, 2023. Alternate Source Demonstration for the WSEC CCR Monofill, September 12, 2023.

GHD, 2024. Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill, January 31, 2024.

GHD, 2024. Alternate Source Demonstration for the WSEC CCR Monofill, January 31, 2024.

GHD, 2024. Groundwater Monitoring System Certification, Walter Scott Jr. Energy Center Monofill, April 2, 2024.

GHD, 2024. Alternate Source Demonstration for the WSEC CCR Monofill. Walter Scott Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. August 20, 2024.

GHD, 2025. Alternate Source Demonstration for the WSEC CCR Monofill. Walter Scott Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. January 20, 2025.

MWH, 2006. Hydrogeological Investigation Report: Coal Combustion Residue Monofill, September 2006.

Terracon, 2017. Groundwater Statistical Methods Certification, Walter Scott Jr. Energy Center Coal Combustion Residual Monofill. October 17, 2017.

Terracon, 2018. 2017 Annual Groundwater Monitoring and Corrective Action Report: Walter Scott Jr. Energy Center Coal Combustion Residual Monofill. January 29, 2018.

Terracon, 2020. Alternative Source Determination – December 2019, Walter Scott Jr. Energy Center Monofill, Council Bluffs, Iowa. January 20, 2020.

Terracon, 2020. Alternate Source Demonstration – July 2020, Walter Scott Jr. Energy Center Coal Combustion Residual Monofill. September 8, 2020.

Terracon, 2021. Alternate Source Demonstration – June 2021, Walter Scott Jr. Energy Center Coal Combustion Residual Monofill. September 27, 2021.

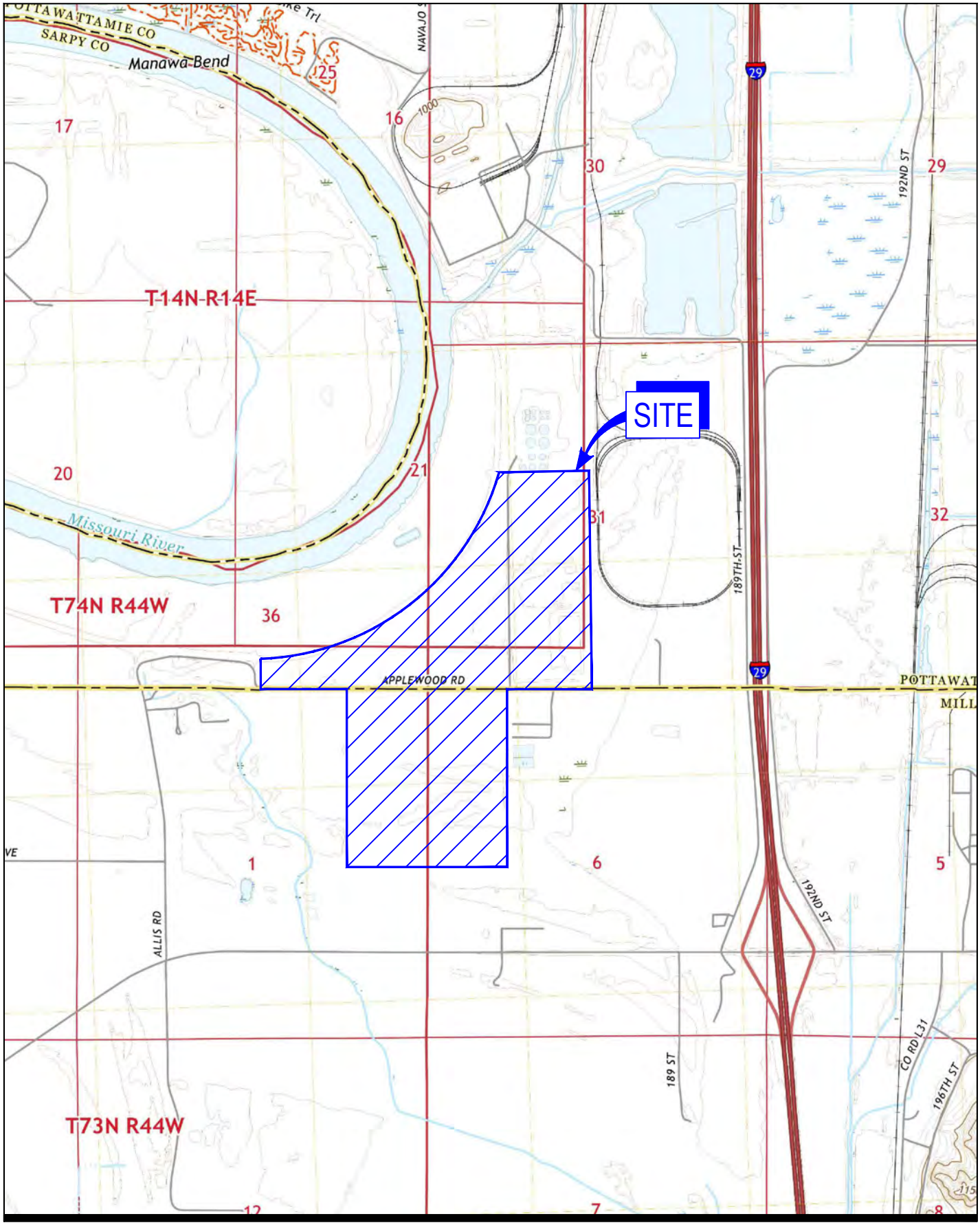
United States Army Corps of Engineers (USACE), 2018. Missouri River Water Management News. Northwestern Division Website: https://www.nwd.usace.army.mil/MRWM/MRWM-News/Year/2018/.

United States Army Corps of Engineers (USACE), 2019. Missouri River Water Management News. Northwestern Division Website: https://www.nwd.usace.army.mil/Media/News-Releases/Year/2019/.

USEPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance. Office of Resource Conservation and Recovery, Program Implementation and Information Division, United States Environmental Protection Agency, Washington DC. EPA/530/R-09/007. March 2009.

USEPA, 2022. ProUCL Version 5.2 Technical Guide. United States Environmental Protection Agency, Office of Research and Development, Washington DC. June 2022.

Figures



0 1000 2000 ft

1" = 2000 ft

Coordinate System:
I83-SF

N

GHD

MIDAMERICAN ENERGY COMAPNY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

Project No. **12592594**
Date **January 2026**

SITE LOCATION MAP

FIGURE 1.1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D101.1_GB-028.dwg
Plot Date: 19 January 2026 2:31 PM

Data Source: USGS Quadrangle Map, Council Bluffs South, IA (2022).

CITY OF COUNCIL BLUFFS
WATER POLLUTION CONTROL
PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

MW-105
MW-108
MW-133
MW-248
MW-250
MW-241R
MW-242
MW-247
MW-240R
LS-3
MW-246
MW-233
MW-243
MW-244
MW-227D
MW-227
LS-2
MW-245
DW-1
MW-191
MW-156D
MW-156
MW-249
MW-143
LEACHATE POND
DW-2
MW-190
LS-1
MW-157
MW-159
MW-158
MW-149
MW-301
MW-302
MW-303
MW-304
MW-305
MW-306
MW-307D
MW-307

CELL 9
CELL 8
CELL 6
CELL 5
CELL 7
CELL 4
CELL 3N
CELL 2
CELL 3S
CELL 1

DETENTION BASIN

LEACHATE MANAGEMENT POND

LEGEND

- PROPERTY BOUNDARY
- FENCING
- MW-245 MONITORING WELL
- MW-233 DECOMMISSIONED WELL
- DW-1 DEWATERING WELL
- LS-1 LEACHATE LIFT STATION
- DOWNGRADIENT SAMPLING LOCATION
- BACKGROUND SAMPLING LOCATION
- GAUGING LOCATION

0 250 500 ft
1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

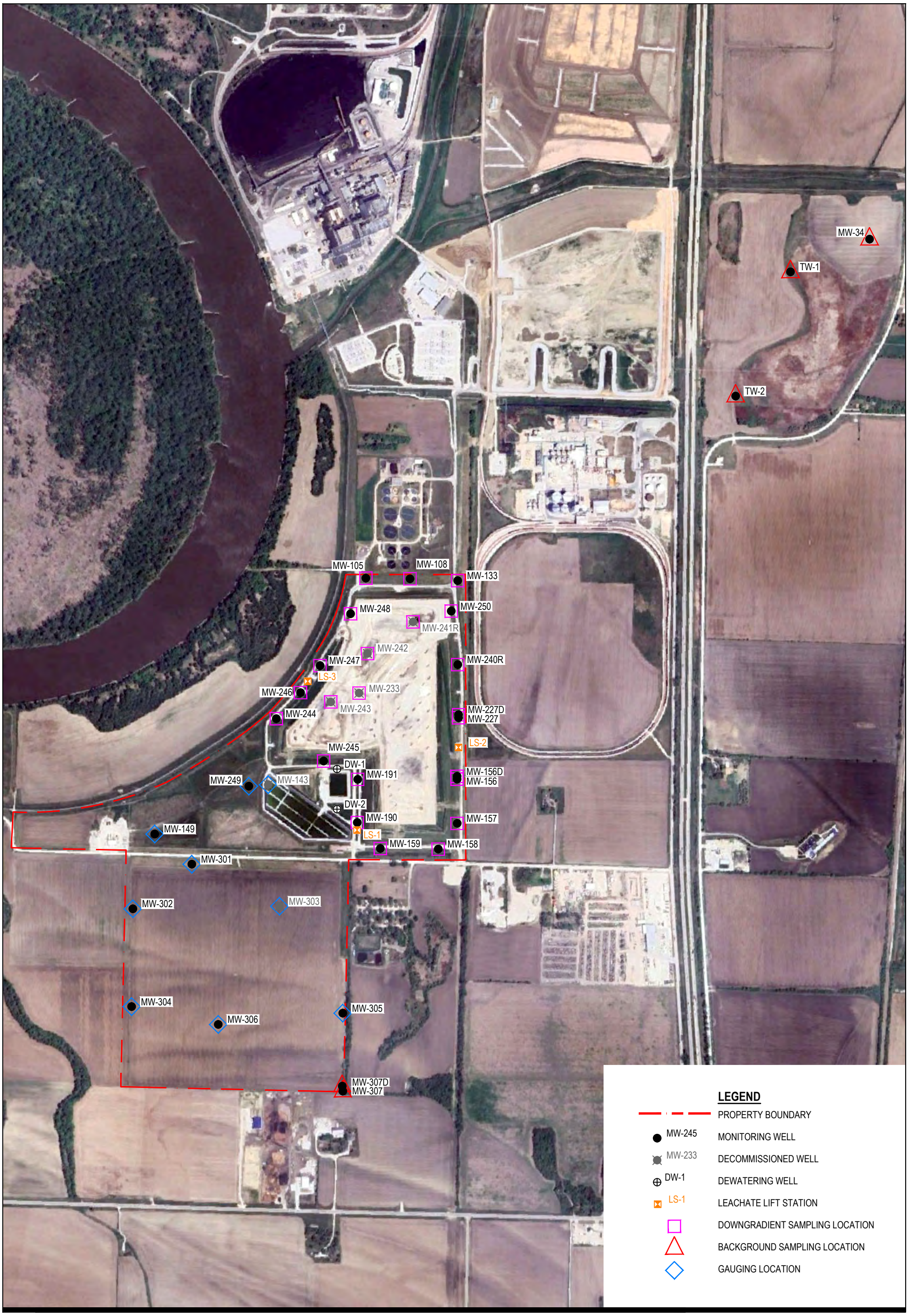
SITE MAP AND MONITORING NETWORK

Project No. **12592594**
Date **January 2026**

FIGURE 1.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D101.2_GB-028.dwg
Plot Date: 19 January 2026 2:31 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 500 1000 ft

1" = 1000 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

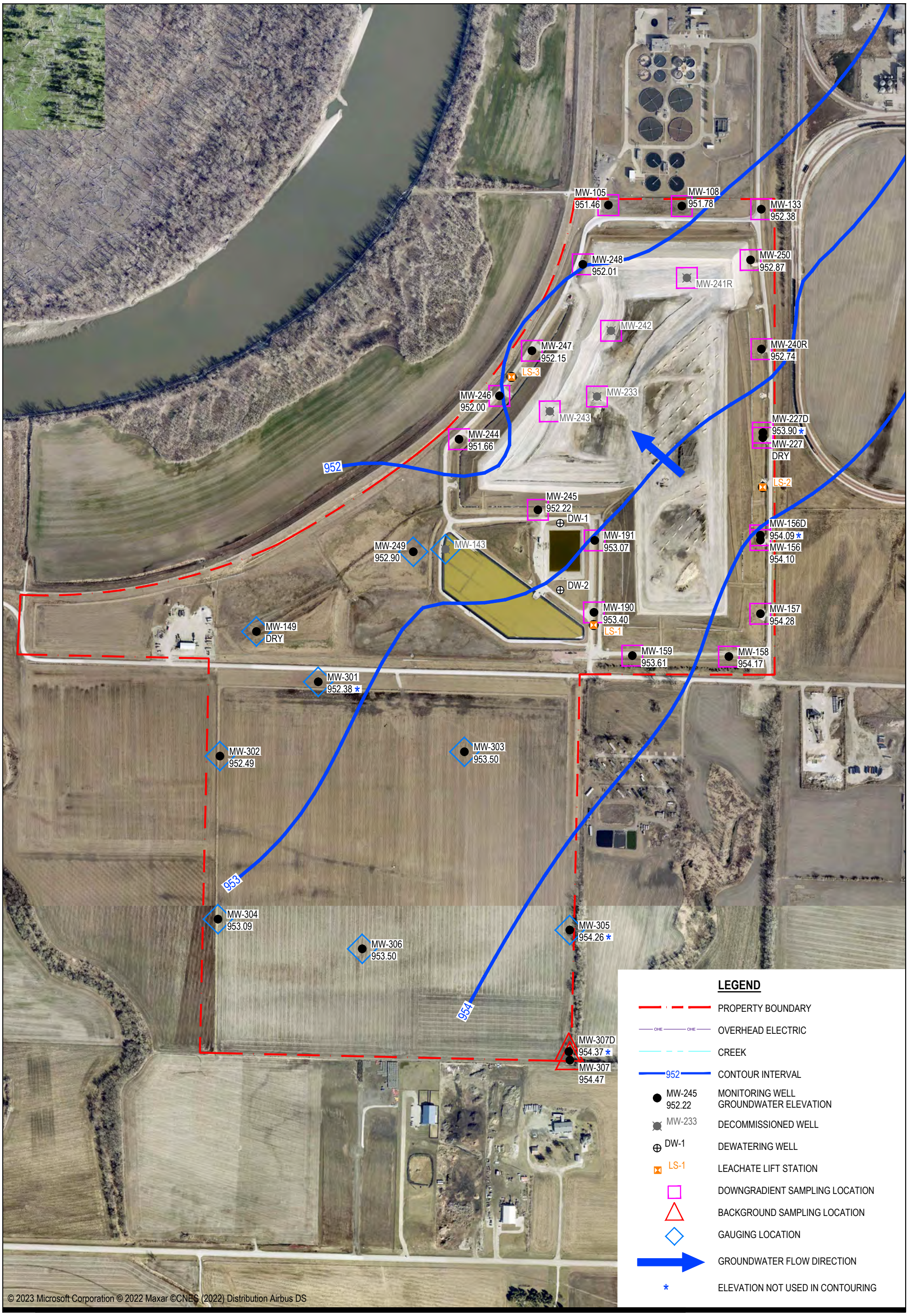
AERIAL PHOTO AND BACKGROUND MONITORING WELL LOCATIONS

Project No. **12592594**
Date **January 2026**

FIGURE 1.3

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D101.3_GB-028.dwg
Plot Date: 19 January 2026 2:31 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

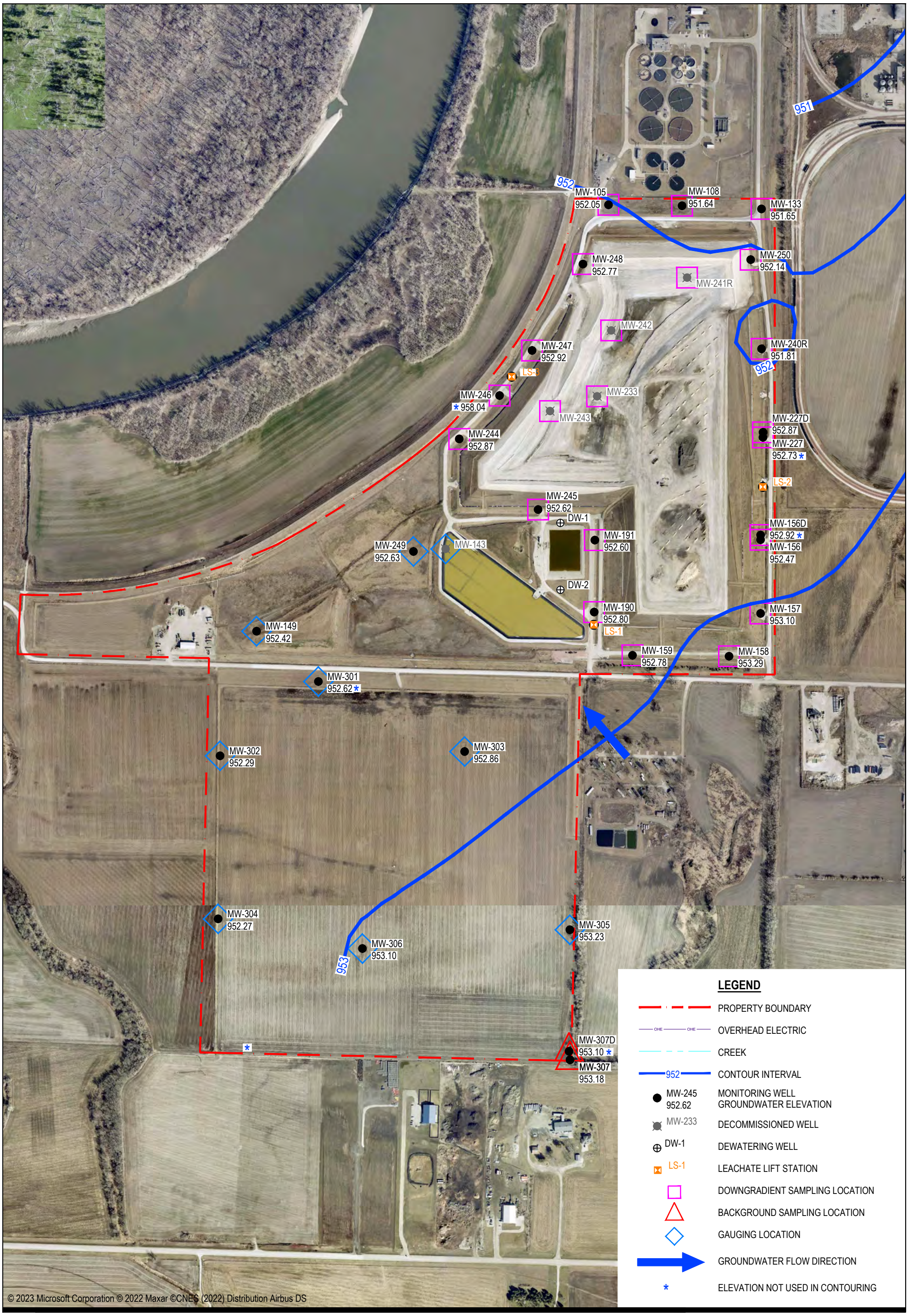
GROUNDWATER FLOW MAP
JANUARY 22, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.1_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

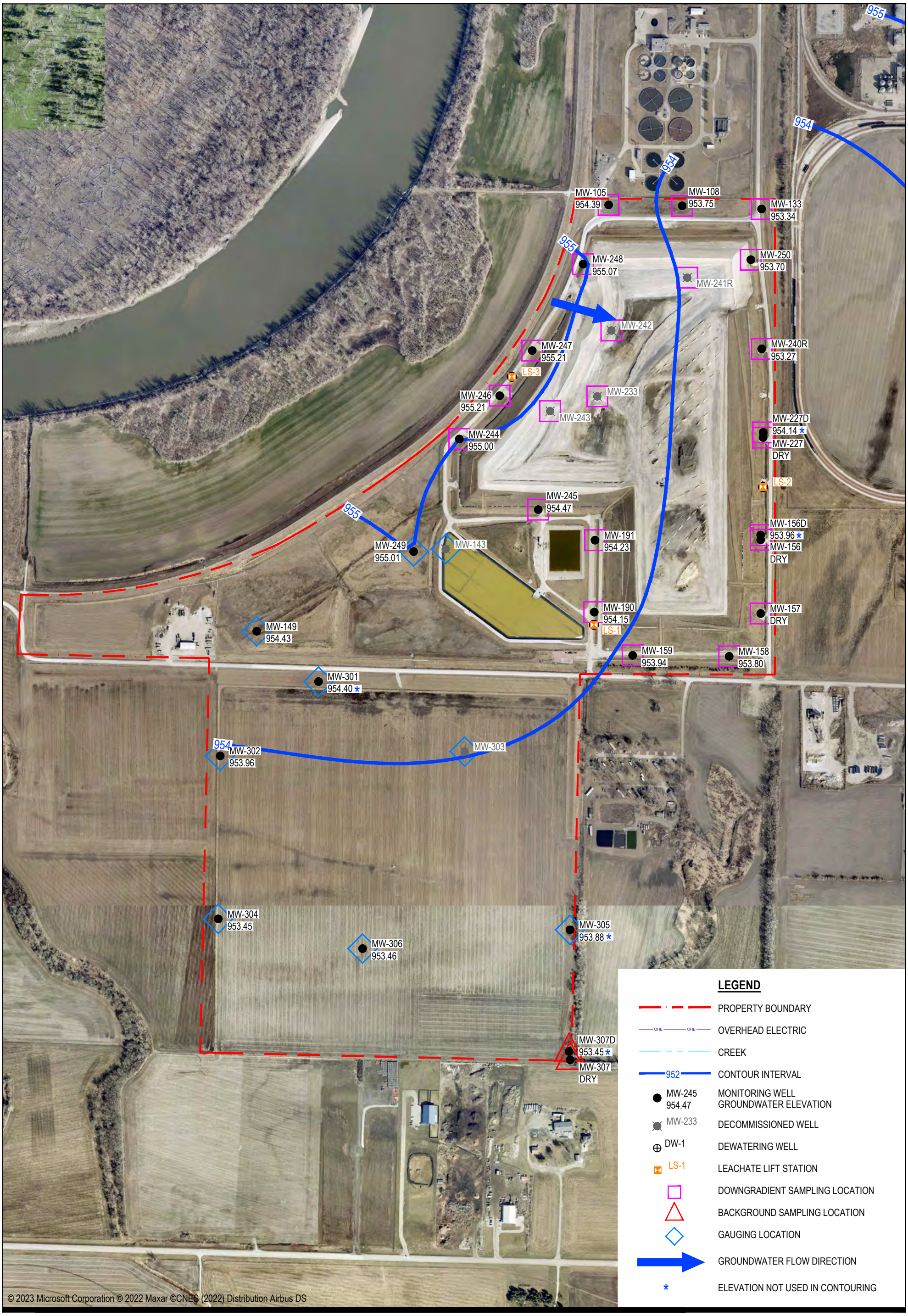
GROUNDWATER FLOW MAP
MARCH 31, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.2_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

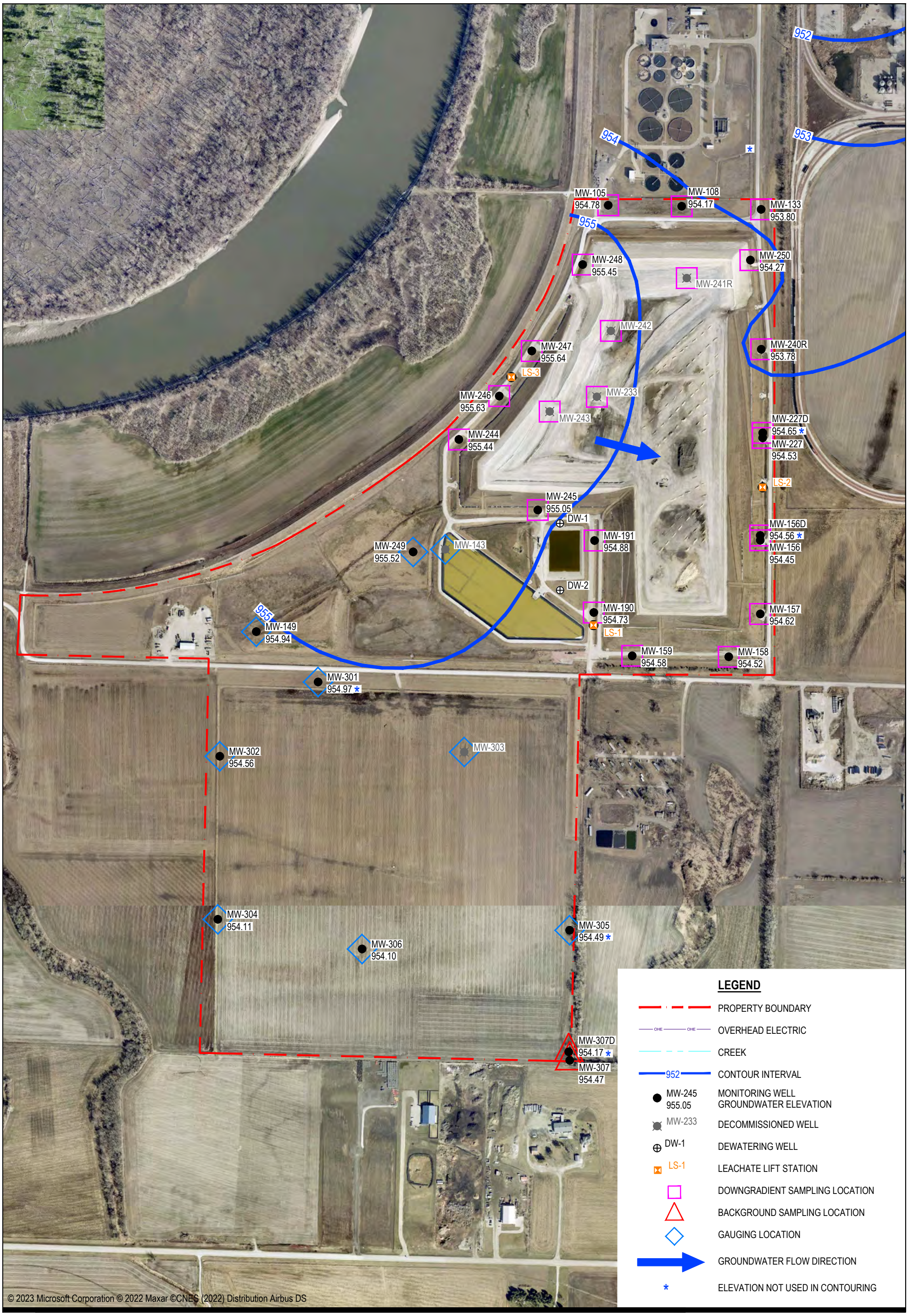
GROUNDWATER FLOW MAP
JUNE 11, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.3

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.3_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

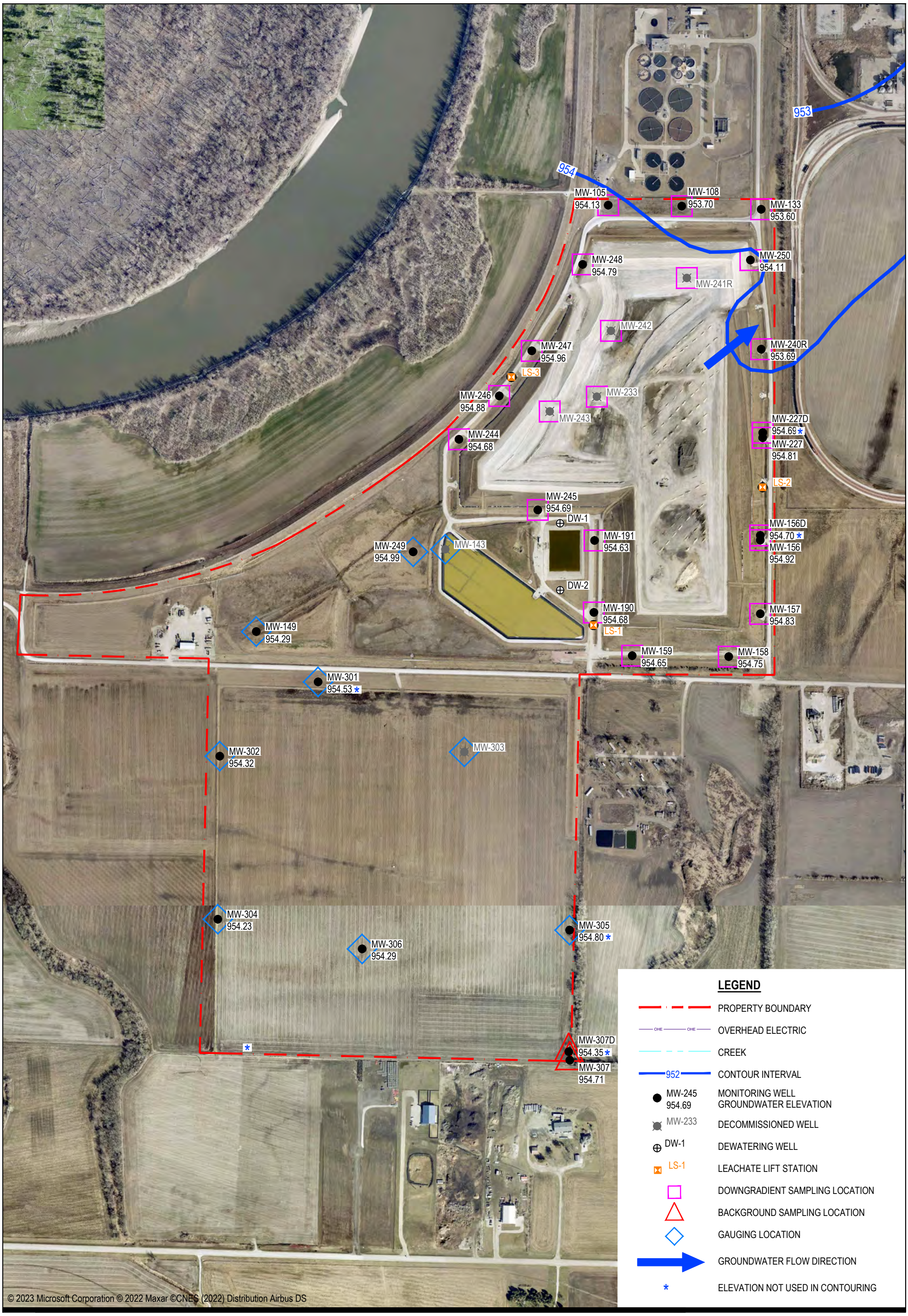
GROUNDWATER FLOW MAP
JULY 24, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.4

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.4_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

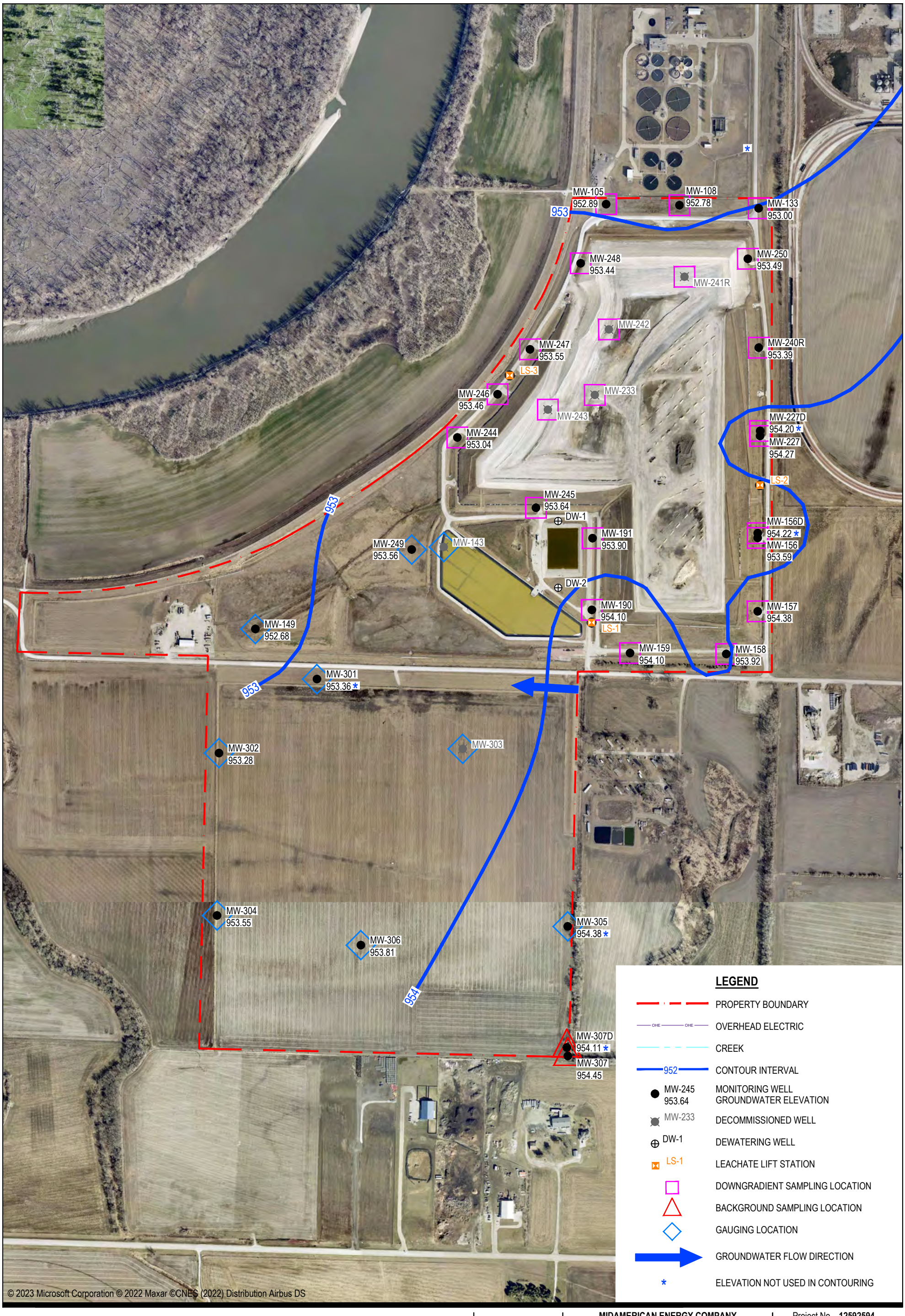
GROUNDWATER FLOW MAP
SEPTEMBER 29, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.5

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.5_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP
DECEMBER 8, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.6

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.6_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022

Tables

Table 2.1

Groundwater Monitoring Well Network
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Monitoring Well	Use in Monitoring Network	Role in Monitoring Network	Installation Date	Decommissioning Date
MW-105	Gauged and Sampled	Downgradient	8/10/2006	
MW-108	Gauged and Sampled	Downgradient	8/11/2006	
MW-133	Gauged and Sampled	Downgradient	8/25/2006	
MW-149	Gauged Only	Gauging Location	6/14/2007	
MW-156	Gauged and Sampled	Downgradient	11/13/2007	
MW-156D	Gauged and Sampled	Downgradient	2/20/2024	
MW-157	Gauged and Sampled	Downgradient	11/13/2007	
MW-158	Gauged and Sampled	Downgradient	11/13/2007	
MW-159	Gauged and Sampled	Downgradient	11/13/2007	
MW-190	Gauged and Sampled	Downgradient	10/21/2008	
MW-191	Gauged and Sampled	Downgradient	10/20/2008	
MW-227	Gauged and Sampled	Downgradient	10/18/2010	
MW-227D	Gauged and Sampled	Downgradient	2/21/2024	
MW-240R	Gauged and Sampled	Downgradient	6/13/2013	
MW-244	Gauged and Sampled	Downgradient	10/2015	
MW-245	Gauged and Sampled	Downgradient	10/2015	
MW-246	Gauged and Sampled	Downgradient	7/19/2019	
MW-247	Gauged and Sampled	Downgradient	7/19/2019	
MW-248	Gauged and Sampled	Downgradient	7/19/2019	
MW-249	Gauged Only	Gauging Location	7/19/2019	
MW-250	Gauged and Sampled	Upgradient	6/28/2021	
MW-301	Gauged Only	Gauging Location	1/16/2012	
MW-302	Gauged Only	Gauging Location	12/5/2011	
MW-304	Gauged Only	Gauging Location	12/7/2011	
MW-305	Gauged Only	Gauging Location	1/16/2012	
MW-306	Gauged Only	Gauging Location	12/7/2011	
MW-307	Gauged and Sampled	Background	12/7/2011	
MW-307D	Gauged and Sampled	Background	2/20/2024	
TW-1	Gauged and Sampled	Background	7/9/2020	
TW-2	Gauged and Sampled	Background	7/9/2020	
MW-34	Gauged and Sampled	Background	7/9/2020	
Decommissioned Wells				
MW-143	Gauged Only	Gauging Location	6/15/2007	5/17/2019
MW-233	Gauged and Sampled	Downgradient	07/2011	6/6/2019
MW-241R	Gauged and Sampled	Downgradient	06/2013	6/10/2021
MW-242	Gauged and Sampled	Downgradient	07/2012	7/17/2019
MW-243	Gauged and Sampled	Downgradient	10/2015	6/6/2019
MW-303	Gauged Only	Gauging Location	12/5/2011	6/2/2025

Notes:
MW-303 decommissioned due to well damage.
Other wells decommissioned to accommodate Monofill expansion.

Table 2.2

Well Construction Details
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

			Monitoring Well Construction					
Well Identification	Northing	Easting	Ground Surface Elevation (NAVD88)	Top of Casing (NAVD88)	Total Depth (feet BTOC)	Screen Length (feet)	Top of Screen (NAVD88)	Bottom of Screen (NAVD88)
MW-105	434564.1	997125.2	965.5	968.78	25.50	15	958.3	943.3
MW-108	434557.3	997626.0	965.5	968.60	25.50	10	953.1	943.1
MW-133	434536.1	998167.0	967.8	970.71	25.46	10	955.3	945.3
MW-149	431660.1	994728.5	967.3	970.12	19.50	10	960.6	950.6
MW-156	432282.9	998161.0	972.9	975.68	23.00	10	962.7	952.7
MW-156D	432288.8	998161.0	974.3	976.40	31.50	15	959.9	944.9
MW-157	431781.0	998161.2	972.3	975.10	25.30	10	959.8	949.8
MW-158	431489.4	997946.4	971.1	973.60	25.40	10	958.2	948.2
MW-159	431496.0	997288.7	971.4	973.60	25.30	15	963.3	948.3
MW-190	431790.7	997092.5	972.6	975.22	24.60	10	960.6	950.6
MW-191	432280.7	997097.1	973.8	976.48	24.00	15	967.5	952.5
MW-227	432979.8	998177.3	974.0	976.45	21.70	10	964.8	954.8
MW-227D	432985.7	998177.6	974.1	976.56	32.65	15	958.9	943.9
MW-240R	433583.0	998167.9	972.7	975.60	28.00	15	962.6	947.6
MW-244	432969.5	996165.3	977.5	980.06	29.00	15	966.1	951.1
MW-245	432488.7	996645.8	980.8	983.34	31.00	15	967.3	952.3
MW-246	433264.8	996440.1	981.5	983.46	31.00	15	967.5	952.5
MW-247	433571.8	996661.7	980.1	982.30	31.00	15	966.3	951.3
MW-248	434160.4	996951.4	979.8	982.91	31.00	15	966.9	951.9
MW-249	432203.2	99596.9	966.8	970.00	15.00	15	970.0	955.0
MW-250	434190.6	998128.6	975.7	978.54	29.00	15	964.5	949.5
MW-301	431353.4	995149.2	966.7	969.77	53.07	10	926.7	916.7
MW-302	430811.7	994480.0	968.6	971.59	20.99	10	960.6	950.6
MW-304	429701.3	994466.4	969.2	972.27	20.07	10	962.2	952.2
MW-305	429627.1	996862.4	970.3	973.48	53.25	10	930.2	920.2
MW-306	429499.1	995449.2	970.1	973.14	20.04	10	963.1	953.1
MW-307	428741.0	996863.5	968.4	971.36	20.10	10	961.3	951.3
MW-307D	428746.4	996856.5	969.3	971.36	27.10	15	959.3	944.3
TW-1	438040.7	1001945.0	965.3	967.14	20.43	10	956.7	946.7
TW-2	436631.1	1001322.3	967.0	968.57	20.40	10	958.2	948.2
MW-34	438412.0	1002842.1	967.7	971.27	21.96	10	959.3	949.3
Decommissioned Wells								
MW-143	432220.7	996015.8	966.0	968.66	20.20	10	958.5	948.5
MW-233	433260.3	997047.8	972.3	975.50	22.65	10	962.9	952.9
MW-241R	434068.4	997660.6	967.5	970.43	24.96	15	960.5	945.5
MW-242	433708.5	997144.1	965.4	967.96	16.36	10	961.6	951.6
MW-243	433159.6	996727.1	966.5	969.10	26.47	15	957.6	942.6
MW-303	430840.8	996145.1	968.3	971.42	20.12	10	961.3	951.3

Notes:
BTOC - Below top of casing.
NAVD88 - North American Vertical Datum of 1988.

Table 2.3

Monitoring Well Screen Occlusion Evaluation
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Well	Top of Casing Elevation (NAVD88)	Total Well Depth Below Top of Casing (feet BTOC)	Screen Length (feet)	2-Oct-2023		30-Sep-2024		29-Sep-2025	
				Measured Well Depth (feet)	Screen Occlusion (%)	Measured Well Depth (feet)	Screen Occlusion (%)	Measured Well Depth (feet)	Screen Occlusion (%)
MW-105	968.78	25.48	15	24.00	9.9%	24.04	9.6%	24.00	9.9%
MW-108	968.31	25.46	10	24.60	8.6%	24.62	8.4%	24.49	9.7%
MW-133	970.71	25.46	10	24.83	6.3%	24.92	5.4%	24.62	8.4%
MW-149	970.12	19.50	10	18.75	7.5%	19.23	2.7%	19.08	4.2%
MW-156	975.68	23.00	10	23.00	0.0%	23.00	0.0%	22.82	1.8%
MW-156D	976.40	31.50	15	-	-	-	-	31.48	0.1%
MW-157	975.10	25.30	10	25.48	-1.8%	25.36	-0.6%	25.20	1.0%
MW-158	973.60	25.35	10	25.47	-1.2%	25.48	-1.3%	25.35	0.0%
MW-159	973.60	25.30	10	25.35	-0.5%	25.31	-0.1%	25.20	1.0%
MW-190	975.22	27.24	10	27.30	-0.6%	27.71	-4.7%	27.10	1.4%
MW-191	976.48	26.16	10	26.26	-1.0%	26.41	-2.5%	26.18	-0.2%
MW-227	976.45	24.15	10	24.92	-7.7%	25.03	-8.8%	24.79	-6.4%
MW-227D	976.56	32.65	15	-	-	32.10	3.7%	32.65	0.0%
MW-240R	975.60	30.36	15	30.89	-3.5%	30.40	-0.3%	30.76	-2.7%
MW-244	980.06	31.90	15	32.51	-4.1%	32.40	-3.3%	32.37	-3.1%
MW-245	983.34	33.80	15	34.48	-4.5%	34.34	-3.6%	34.33	-3.5%
MW-246	983.46	33.00	15	34.74	-11.6%	33.08	-0.5%	33.58	-3.9%
MW-247	982.30	33.20	15	33.70	-3.3%	33.48	-1.9%	33.56	-2.4%
MW-248	982.91	34.10	15	34.44	-2.3%	34.10	0.0%	34.31	-1.4%
MW-249	969.35	17.60	15	18.25	-4.3%	18.32	-4.8%	18.28	-4.5%
MW-250	978.54	30.80	15	31.56	-5.1%	31.42	-4.1%	31.36	-3.7%
MW-307	971.36	20.10	10	21.96	-18.6%	20.13	-0.3%	20.27	-1.7%
MW-307D	971.36	27.10	15	-	-	27.10	0.0%	27.06	0.3%
TW-1	967.14	20.43	10	21.22	-7.9%	21.43	-10.0%	20.43	0.0%
TW-2	968.57	20.40	10	21.31	-9.1%	21.33	-9.3%	20.31	0.9%
MW-34	971.27	21.96	10	22.12	-1.6%	21.98	-0.2%	21.99	-0.3%

Notes:
% - Percent.
BTOC - Below top of casing.
NAVD88 - North American Vertical Datum of 1988.

Table 2.4

Appendix III Parameters (Detection Monitoring)
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Analyte	Analytical Method
Boron	EPA 6020A
Calcium	EPA 6020A
Chloride	EPA 9056A
Fluoride	EPA 9056A
pH	SM 4500 H+B
Sulfate	EPA 9056A
Total Dissolved Solids (TDS)	SM 2540C

Table 2.5

Appendix IV Parameters (Assessment Monitoring)
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Analyte	Analytical Method
Antimony	EPA 6020A
Arsenic	EPA 6020A
Barium	EPA 6020A
Beryllium	EPA 6020A
Cadmium	EPA 6020A
Chromium	EPA 6020A
Cobalt	EPA 6020A
Fluoride	EPA 9056A
Lead	EPA 6020A
Lithium	EPA 6020A
Mercury	EPA 7470A
Molybdenum	EPA 6020A
Selenium	EPA 6020A
Thallium	EPA 6020A
Radium 226 and 228 combined	EPA 9315/9320

Table 2.6

Summary of Groundwater Monitoring Events
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Sampling Dates	MW-105	MW-108	MW-133	MW-156	MW-156D	MW-157	MW-158	MW-159	MW-190	MW-191	MW-227	MW-227D	MW-233 (Plugged)	MW-240R
March 16 -17, 2016	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
May 16-18, 2016	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
July 18-20, 2016	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
October 4-6, 2017	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
January 30 - February 1, 2017	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
April 10-12, 2017	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
July 11-12, 2017	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
August 14-16, 2017	-	-	Baseline	Baseline	-	Baseline	Baseline	Baseline	Baseline	Baseline	Baseline	-	Baseline	Baseline
October 10-11, 2017	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	Detection	Detection
February 13, 2018	-	-	-	-	-	-	-	-	Verification	-	Verification	-	-	Verification
May 1-2, 2018	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	Detection	Detection
July 31, 2018	-	-	-	-	-	-	-	-	-	-	Verification	-	-	Verification
October 10-12, 2018	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	Detection	Detection
November 14, 2018	-	-	-	Verification	-	-	-	-	Verification	-	Verification	-	Verification	Verification
April 16-18, 2019	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	Detection	Detection
July 29, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
August 5, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
August 19, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
August 28, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
September 9, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
September 24, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
October 8, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
October 14, 2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
October 28-30, 2019	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	Detection
April 20-22, 2020	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	Detection
June 29-30, 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
July 27, 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
October 12-14, 2020	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	Detection
November 16, 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
December 1, 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
April 19-22, 2021	-	-	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	Detection
May 3, 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-
July 30, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
August 2, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
August 16, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
August 30, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
September 13, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
September 30, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
October 6, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
October 14, 2021	Baseline	Baseline	-	-	-	-	-	-	-	-	-	-	-	-
October 25-27, 2021	Detection	Detection	Detection	Detection	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	Detection
November 3, 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-
November 18, 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-
April 26-28, 2022	Detection	Detection	Detection	NS	-	NS	NS	Detection	Detection	NS	NS	-	-	Detection
June 10-13, 2022	-	-	-	-	-	-	-	Verification	Verification	-	-	-	-	-
October 10-12, 2022	Detection	Detection	Detection	NS	-	Detection	Detection	Detection	Detection	Detection	NS	-	-	Detection
November 8, 2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 2.6

Summary of Groundwater Monitoring Events
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Sampling Dates	MW-105	MW-108	MW-133	MW-156	MW-156D	MW-157	MW-158	MW-159	MW-190	MW-191	MW-227	MW-227D	MW-233 (Plugged)	MW-240R
January 16-17, 2023	Verification	-	Verification	-	-	-	-	NS	NS	NS	-	-	-	-
April 24-27, 2023	Detection	Detection	Detection	NS	-	NS	Detection	Detection	Detection	NS	NS	-	-	Detection
June 27, 2023	-	-	Verification	-	-	-	-	-	-	-	-	-	-	-
October 2-5, 2023	Detection	Detection	Detection	NS	-	Detection	Detection	Detection	Detection	Detection	NS	-	-	Detection
November 29, 2023	Verification	Verification	Verification	-	-	-	-	Verification	-	-	-	-	-	Verification
April 1-4, 2024	Detection	Detection	Detection	NS	Baseline	Detection	Detection	Detection	Detection	Detection	NS	Baseline	-	Detection
June 3-5, 2024	-	Verification	-	-	Baseline	-	-	-	Verification	-	-	Baseline	-	-
September 30 - October 3, 2024	Detection	Detection	Detection	Detection	Baseline	Detection	Detection	Detection	Detection	Detection	Detection	Baseline	-	Detection
December 10, 2024	Verification	Verification	-	Verification	-	Verification	-	-	-	Verification	Verification	-	-	-
January 23, 2025	-	-	-	-	Baseline	-	-	-	-	-	-	Baseline	-	-
March 31 - April 3, 2025	Detection	Detection	Detection	NS	Baseline	Detection	Detection	Detection	Detection	Detection	NS	Baseline	-	Detection
June 11, 2025	Verification	Verification	Verification	-	-	-	-	Verification	-	-	-	-	-	Verification
July 24, 2025	-	-	-	-	Baseline	-	-	-	-	-	-	Baseline	-	-
September 29 - October 2, 2025	Detection	Detection	Detection	Detection	Baseline	Detection	Detection	Detection	Detection	Detection	Detection	Baseline	-	Detection
Number of Samples														
Appendix III Analytes	17	17	25	19	7	23	24	25	25	23	19	7	12	25
Appendix IV Analytes	8	8	8	8	7	8	8	8	8	8	8	7	8	8

Table 2.6

Summary of Groundwater Monitoring Events
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Sampling Dates	MW-241R (Plugged)	MW-242 (Plugged)	MW-243 (Plugged)	MW-244	MW-245	MW-246	MW-247	MW-248	MW-250	MW-34	MW-307	MW-307D	TW-1	TW-2
March 16 -17, 2016	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
May 16-18, 2016	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
July 18-20, 2016	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
October 4-6, 2017	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
January 30 - February 1, 2017	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
April 10-12, 2017	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
July 11-12, 2017	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
August 14-16, 2017	Baseline	Baseline	Baseline	Baseline	Baseline	-	-	-	-	-	-	-	-	-
October 10-11, 2017	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-	-	-	-
February 13, 2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-
May 1-2, 2018	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-	-	-	-
July 31, 2018	-	-	Verification	-	Verification	-	-	-	-	-	-	-	-	-
October 10-12, 2018	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-	-	-	-
November 14, 2018	Verification	-	Verification	-	-	-	-	-	-	-	-	-	-	-
April 16-18, 2019	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-	-	-	-
July 29, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
August 5, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
August 19, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
August 28, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
September 9, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
September 24, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
October 8, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
October 14, 2019	-	-	-	-	-	Baseline	Baseline	Baseline	-	-	-	-	-	-
October 28-30, 2019	Detection	-	-	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-
April 20-22, 2020	Detection	-	-	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-	-
June 29-30, 2020	-	-	-	-	-	-	Detection	-	-	-	-	-	-	-
July 27, 2020	-	-	-	-	-	-	-	-	-	Baseline	Baseline	-	Baseline	Baseline
October 12-14, 2020	Detection	-	-	Detection	Detection	Detection	Detection	Detection	-	Baseline	Baseline	-	Baseline	Baseline
November 16, 2020	-	-	-	-	-	-	-	-	-	Baseline	Baseline	-	Baseline	Baseline
December 1, 2020	-	-	-	-	-	-	Detection	-	-	-	-	-	-	-
April 19-22, 2021	Detection	-	-	Detection	Detection	Detection	Detection	Detection	-	Baseline	Baseline	-	Baseline	Baseline
May 3, 2021	-	-	-	-	-	-	-	-	-	Baseline	Baseline	-	Baseline	Baseline
July 30, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
August 2, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
August 16, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
August 30, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
September 13, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
September 30, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
October 6, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
October 14, 2021	-	-	-	-	-	-	-	-	Baseline	-	-	-	-	-
October 25-27, 2021	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-
November 3, 2021	-	-	-	-	-	-	-	-	-	Baseline	Baseline	-	Baseline	Baseline
November 18, 2021	-	-	-	-	-	-	-	-	-	Baseline	Baseline	-	Baseline	Baseline
April 26-28, 2022	-	-	-	Detection	NS	NS	Detection	Detection	Detection	Baseline	NS	-	Baseline	Baseline
June 10-13, 2022	-	-	-	Verification	-	-	Verification	Verification	Verification	-	-	-	-	-
October 10-12, 2022	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	-	-	-	-	-
November 8, 2022	-	-	-	-	-	-	-	-	-	Assessment	NS	-	Assessment	Assessment

Table 2.6

Summary of Groundwater Monitoring Events
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Sampling Dates	MW-241R (Plugged)	MW-242 (Plugged)	MW-243 (Plugged)	MW-244	MW-245	MW-246	MW-247	MW-248	MW-250	MW-34	MW-307	MW-307D	TW-1	TW-2
January 16-17, 2023	-	-	-	-	NS	NS	NS	-	Verification	-	-	-	-	-
April 24-27, 2023	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	NS	-	Assessment	Assessment
June 27, 2023	-	-	-	-	Verification	-	-	-	Verification	-	-	-	-	-
October 2-5, 2023	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	NS	-	Assessment	Assessment
November 29, 2023	-	-	-	Verification	Verification	-	Verification	Verification	Verification	-	-	-	-	-
April 1-4, 2024	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	NS	Baseline	Assessment	Assessment
June 3-5, 2024	-	-	-	-	-	-	Verification	-	-	-	-	Baseline	-	-
September 30 - October 3, 2024	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	Baseline	Baseline	Assessment	Assessment
December 10, 2024	-	-	-	-	Verification	-	Verification	-	-	-	-	-	-	-
January 23, 2025	-	-	-	-	-	-	-	-	-	-	-	Baseline	-	-
March 31 - April 3, 2025	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	Assessment	Baseline	Assessment	Assessment
June 11, 2025	-	-	-	-	Verification	-	Verification	Verification	Verification	-	-	-	-	-
July 24, 2025	-	-	-	-	-	-	-	-	-	-	-	Baseline	-	-
September 29 - October 2, 2025	-	-	-	Detection	Detection	Detection	Detection	Detection	Detection	Assessment	Assessment	Baseline	Assessment	Assessment
Number of Samples														
Appendix III Analytes	16	12	12	25	24	20	23	21	17	15	10	7	15	15
Appendix IV Analytes	8	8	8	8	8	8	8	8	8	15	10	7	15	15

Notes:
1. Baseline monitoring events include analysis of both Appendix III (Detection Monitoring) and Appendix IV (Assessment Monitoring) analytes.
2. Detection monitoring events include the analysis of Appendix III analytes only.
3. Assessment monitoring events include analysis of both Appendix III and Appendix IV analytes.
4. Verification and Supplemental monitoring events not included in total number of samples per well.
5. NS = Not Sampled, well contained insufficient water to allow sampling during the monitoring event.

Table 3.1

Groundwater Elevation Summary
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Well	Top of Casing Elevation (NAVD88)	Total Well Depth Below Top of Casing (feet BTOC)	14-Mar-2016 (NAVD88)	16-May-2016 (NAVD88)	4-Oct-2016 (NAVD88)	30-Jan-2017 (NAVD88)	10-Apr-2017 (NAVD88)	11-Jul-2017 (NAVD88)	14-Aug-2017 (NAVD88)	10-Oct-2017 (NAVD88)	1-May-2018 (NAVD88)	10-Oct-2018 (NAVD88)	6-Jun-2018 (NAVD88)	16-Apr-2019 (NAVD88)	28-Oct-2019 (NAVD88)	12-Dec-2019 (NAVD88)	20-Apr-2020 (NAVD88)	12-Oct-2020 (NAVD88)	1-Dec-2020 (NAVD88)	19-Apr-2021 (NAVD88)
MW-34	971.27	21.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	961.37	-	-
MW-105	968.78	25.48	957.62	962.51	957.57	955.43	957.61	959.46	957.87	959.97	959.69	965.48	960.32	965.60	966.35	-	960.81	956.06	-	955.18
MW-108	968.60	25.46	957.62	961.86	958.18	955.07	956.34	958.20	957.64	958.42	955.98	964.87	959.38	964.73	965.82	-	960.37	955.61	-	952.80
MW-133	970.71	25.46	958.27	962.79	958.09	955.96	957.54	959.70	958.12	958.30	957.80	964.96	959.24	964.71	966.17	962.98	960.95	956.27	955.63	954.95
MW-149	970.12	19.50	957.62	963.10	957.48	955.28	957.49	959.63	957.85	960.13	959.45	965.43	960.19	964.92	965.54	-	960.44	955.81	-	954.61
MW-156	975.68	23.00	960.24	965.12	959.93	957.58	958.55	961.52	959.73	959.59	958.28	965.95	959.73	965.27	966.77	-	961.62	957.40	956.64	955.42
MW-156D	976.40	31.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-157	975.10	25.30	960.57	965.58	960.20	957.81	958.95	961.73	959.88	959.83	958.28	966.16	959.69	965.25	966.76	964.06	961.62	957.50	-	955.41
MW-158	973.60	25.35	960.47	965.60	960.11	957.68	958.89	961.63	959.73	959.83	958.23	965.93	959.57	965.09	966.48	-	961.56	957.41	-	955.23
MW-159	973.60	25.30	959.95	964.96	959.62	957.25	958.45	961.33	959.48	959.56	958.42	965.93	959.76	965.07	966.22	964.05	961.37	957.09	-	954.98
MW-190	975.22	27.24	959.68	964.58	959.43	957.06	958.26	961.17	959.40	959.70	958.68	965.92	959.90	965.12	966.28	-	961.33	956.97	956.22	955.06
MW-191	976.48	26.16	959.36	964.19	959.13	956.83	958.08	960.93	959.20	959.70	958.88	965.80	960.03	965.26	966.33	963.74	961.30	956.91	-	955.07
MW-227	976.45	24.15	959.88	964.61	959.55	957.25	958.23	961.22	959.52	959.29	958.23	965.76	959.71	965.25	966.83	-	961.49	957.30	956.46	955.38
MW-227D	976.56	32.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-240R	975.60	30.36	958.81	963.46	958.54	956.26	957.39	960.20	958.52	958.40	957.52	965.02	959.02	964.55	966.09	963.08	960.72	956.39	955.65	954.68
MW-244	980.06	31.90	957.94	962.89	957.85	955.65	958.00	959.96	958.27	960.66	960.19	965.76	960.82	965.66	966.24	-	960.93	956.33	-	955.31
MW-245	983.34	33.80	958.68	963.50	958.50	956.22	957.94	960.47	958.76	959.90	959.31	965.70	960.21	964.71	966.18	-	961.09	956.54	955.87	955.05
MW-246	983.46	33.00	-	-	-	-	-	-	-	-	-	-	-	-	966.37	-	961.06	956.60	955.66	955.51
MW-247	982.30	33.20	-	-	-	-	-	-	-	-	-	-	-	-	966.34	962.88	961.21	956.51	955.85	955.58
MW-248	982.91	34.10	-	-	-	-	-	-	-	-	-	-	-	-	966.62	-	961.24	956.56	955.89	955.61
MW-249	969.35	17.60	-	-	-	-	-	-	-	-	-	-	-	-	965.44	-	961.51	956.57	-	955.32
MW-250	978.54	30.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-301	969.77	53.10	958.37	963.42	958.17	955.88	-	960.28	-	-	959.24	-	-	964.75	966.62	-	960.82	956.23	-	954.68
MW-302	971.59	21.00	958.28	963.42	958.06	955.77	-	960.18	-	-	958.80	-	-	964.80	965.54	-	960.62	956.10	-	954.13
MW-303	971.42	20.10	959.65	964.57	959.31	956.95	-	961.36	-	-	958.59	-	-	964.97	966.00	-	961.36	956.93	-	954.84
MW-304	972.27	20.10	958.77	963.60	958.45	956.14	-	960.48	-	-	957.87	-	-	964.36	965.22	-	960.63	956.09	-	953.59
MW-305	973.48	53.20	960.80	965.78	960.32	957.80	-	961.92	-	-	958.30	-	-	965.07	966.23	-	961.61	957.21	-	954.53
MW-306	973.14	20.00	959.58	964.52	959.22	956.80	-	961.06	-	-	957.73	-	-	964.54	965.57	-	960.96	956.63	-	953.92
MW-307	971.36	20.10	964.01	967.77	961.39	958.42	-	962.11	-	-	958.47	-	-	967.16	968.21	-	961.96	957.27	-	954.66
MW-307D	971.36	27.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-1	967.14	20.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	959.96	-	-
TW-2	968.57	20.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	960.67	-	-

Notes:
BTOC - Below top of casing.
NAVD88 - North American Vertical Datum of 1988.

Table 3.1

Groundwater Elevation Summary
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Well	Top of Casing Elevation (NAVD88)	Total Well Depth Below Top of Casing (feet BTOC)	25-Oct-2021 (NAVD88)	25-Apr-2022 (NAVD88)	10-Oct-2022 (NAVD88)	16-Jan-2023 (NAVD88)	24-Apr-2023 (NAVD88)	2-Oct-2023 (NAVD88)	29-Nov-2023 (NAVD88)	1-Apr-2024 (NAVD88)	3-Jun-2024 (NAVD88)	30-Sep-2024 (NAVD88)	10-Dec-2024 (NAVD88)	22-Jan-2025 (NAVD88)	31-Mar-2025 (NAVD88)	11-Jun-2025 (NAVD88)	24-Jul-2025 (NAVD88)	29-Sep-2025 (NAVD88)	8-Dec-2025 (NAVD88)
MW-34	971.27	21.96	-	959.99	-	957.84	959.22	958.02	-	959.41	963.59	961.94	961.63	961.01	960.80	960.84	960.07	961.09	960.93
MW-105	968.78	25.48	954.84	952.22	953.26	949.75	951.79	953.79	953.74	951.77	956.97	956.20	953.90	951.46	952.05	954.39	954.78	954.13	952.89
MW-108	968.60	25.46	954.13	951.73	952.48	949.78	951.10	952.96	953.21	951.09	955.96	955.84	954.03	951.78	951.64	953.75	954.17	953.70	952.78
MW-133	970.71	25.46	954.41	951.53	951.92	950.18	950.55	952.34	952.90	950.61	954.72	955.76	954.32	952.38	951.65	953.34	953.80	953.60	953.00
MW-149	970.12	19.50	954.72	951.81	952.83	Dry	Dry	953.56	-	951.96	956.67	956.01	953.37	Dry	952.42	954.43	954.94	954.29	952.68
MW-156	975.68	23.00	955.01	952.94	952.78	Dry	Dry	Dry	-	Dry	953.71	956.68	955.56	954.10	952.47	Dry	954.45	954.92	953.59
MW-156D	976.40	31.50	-	-	-	-	-	-	-	951.06	953.69	956.65	955.62	954.09	952.92	953.96	954.56	954.70	954.22
MW-157	975.10	25.30	955.03	952.22	952.30	950.84	Dry	951.97	-	951.03	953.34	956.74	955.76	954.28	953.10	Dry	954.62	954.83	954.38
MW-158	973.60	25.35	954.88	952.02	952.06	950.38	950.19	951.85	-	949.61	953.28	956.45	955.62	954.17	953.29	953.80	954.52	954.75	953.92
MW-159	973.60	25.30	954.71	951.87	952.17	950.27	950.42	952.19	952.45	950.94	953.97	956.36	955.32	953.61	952.78	953.94	954.58	954.65	954.10
MW-190	975.22	27.24	954.91	951.99	952.54	950.36	950.83	952.64	-	951.19	954.65	956.50	955.90	953.40	952.80	954.15	954.73	954.68	954.10
MW-191	976.48	26.16	954.91	952.09	952.74	950.49	951.16	952.95	-	951.34	955.15	956.56	955.09	953.07	952.60	954.23	954.88	954.63	953.90
MW-227	976.45	24.15	955.10	952.49	952.72	Dry	Dry	952.56	-	Dry	Dry	956.64	955.51	Dry	952.73	Dry	954.53	954.81	954.27
MW-227D	976.56	32.65	-	-	-	-	-	-	-	951.25	954.17	956.77	955.63	953.90	952.87	954.14	954.65	954.69	954.20
MW-240R	975.60	30.36	954.68	951.52	948.94	950.15	950.24	951.93	952.35	950.43	953.71	955.83	954.56	952.74	951.81	953.27	953.78	953.69	953.39
MW-244	980.06	31.90	955.40	952.82	953.79	949.79	952.35	954.41	953.93	952.61	957.76	956.65	953.76	951.66	952.87	955.00	955.44	954.68	953.04
MW-245	983.34	33.80	955.07	952.05	953.17	950.26	951.37	953.59	953.59	951.40	956.18	956.61	954.65	952.22	952.62	954.47	955.05	954.69	953.64
MW-246	983.46	33.00	955.47	952.62	954.03	950.21	952.34	955.08	-	952.49	957.82	956.88	954.17	952.00	958.04	955.21	955.63	954.88	953.46
MW-247	982.30	33.20	955.51	952.87	954.10	950.21	952.55	954.58	954.00	952.57	957.78	956.90	954.39	952.15	952.92	955.21	955.64	954.96	953.55
MW-248	982.91	34.10	955.51	952.89	954.06	950.37	952.56	954.51	954.30	952.49	957.68	956.84	954.61	952.01	952.77	955.07	955.45	954.79	953.44
MW-249	969.35	17.60	955.59	952.38	953.49	Dry	951.99	954.10	-	952.28	957.88	956.77	954.50	952.90	952.63	955.01	955.52	954.99	953.56
MW-250	978.54	30.80	953.96	951.95	952.50	950.57	950.90	952.71	953.15	950.99	954.81	956.29	954.92	952.87	952.14	953.70	954.27	954.11	953.49
MW-301	969.77	53.10	-	951.74	952.65	949.63	951.12	953.21	-	951.67	955.99	956.17	954.24	952.38	952.62	954.40	954.97	954.53	953.36
MW-302	971.59	21.00	-	951.05	951.94	Dry	Dry	952.56	-	Dry	954.92	-	954.30	952.49	952.29	953.96	954.56	954.32	953.28
MW-303	971.42	20.10	-	951.82	952.14	Dry	951.77	952.49	-	Dry	954.60	-	955.30	953.50	952.86	Plugged	Plugged	Plugged	Plugged
MW-304	972.27	20.10	-	952.08	952.04	Dry	952.01	Dry	-	Dry	953.20	-	954.71	953.09	952.27	953.45	954.11	954.23	953.55
MW-305	973.48	53.20	-	951.05	950.65	949.28	949.11	950.97	-	950.77	952.64	955.90	955.49	954.26	953.23	953.88	954.49	954.80	954.38
MW-306	973.14	20.00	-	952.99	952.97	Dry	952.96	952.98	-	Dry	Dry	-	954.99	953.50	953.10	953.46	954.10	954.29	953.81
MW-307	971.36	20.10	-	951.37	951.12	Dry	Dry	Dry	-	Dry	951.95	955.80	955.40	954.47	953.18	Dry	954.47	954.71	954.45
MW-307D	971.36	27.10	-	-	-	-	-	-	-	950.39	951.60	955.44	954.44	954.37	953.10	953.45	954.17	954.35	954.11
TW-1	967.14	20.43	-	963.61	-	957.98	960.22	957.65	-	956.43	962.75	960.65	961.90	961.52	961.76	960.82	960.01	958.41	958.80
TW-2	968.57	20.40	-	956.87	-	954.93	955.57	954.43	-	954.85	959.14	958.90	958.18	957.42	956.86	956.88	956.94	957.21	957.10

Table 3.2

Horizontal Gradients and Average Groundwater Flow Velocities
Walter Scott Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Date	Monitoring Wells	Horizontal Hydraulic Gradient (unitless)	Average Linear Groundwater Flow Velocity (meters/day)	Average Linear Groundwater Flow Velocity (feet/year)
25-Apr-2022	MW-244 to MW-245	0.001	0.010	12
10-Oct-2022	MW-244 to MW-245	0.001	0.008	10
16-Jan-2023	MW-250 to MW-105	0.001	0.008	9
24-Apr-2023	MW-245 to MW-191	0.0005	0.004	5
2-Oct-2023	MW-244 to MW-158	0.001	0.010	13
1-Apr-2024	MW-244 to MW-245	0.002	0.016	19
3-Jun-2024	MW-244 to MW-245	0.002	0.021	25
30-Sep-2024	MW-248 to MW-108	0.001	0.013	15
10-Dec-2024	MW-190 to MW-159	0.001	0.014	17
22-Jan-2025	MW-156 to MW-248	0.001	0.009	11
31-Mar-2025	MW-157 to MW-248	0.000	0.001	1
11-Jun-2025	MW-248 to MW-133	0.001	0.013	15
24-Jul-2025	MW-246 to MW-156	0.001	0.006	7
29-Sep-2025	MW-248 to MW-108	0.001	0.014	17
8-Dec-2025	MW-227 to MW-108	0.001	0.009	10

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample ID:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW105-GW-1022	MW105-GW-0123	MW105-GW-0423
Sample Date:		MCL [a]	GWPS [b]	7/30/2021	8/2/2021	8/16/2021	8/30/2021	9/13/2021	9/20/2021	10/6/2021	10/14/2021	10/25/2021	4/27/2022	10/11/2022	1/17/2023	4/27/2023
		40 CFR 257.95(h)(1)	40 CFR 257.95(h)(2)													
Parameters	**Units**															
Appendix III																
Boron	mg/L	NA	NA	0.174	0.181	0.141	0.149	0.165	0.161	0.204	0.207	0.163	0.186	0.173	--	0.161
Calcium	mg/L	NA	NA	152	146	156	150	154	163	141	157	152	164	174	156	173
Chloride	mg/L	NA	NA	15	16.4	16.5	16.4	15.6	15.4	16.5	15.7	16.1	17.0	15.4	--	18.3
Fluoride	mg/L	4.0	NA	<0.500	0.618	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	--	<1.00
pH, lab	s.u.	NA	NA	7.2	7.2	7.1	7.2	7.1	7.1	7.1	7.1	7.1	7.2 J	7.1 J	--	7.3 J
Sulfate	mg/L	NA	NA	136	141	143	143	143	144	146	144	148	141	138	--	149 J-
Total dissolved solids (TDS)	mg/L	NA	NA	664	672	674	666	608	640	656	630	622	692	724	692	700
Appendix IV																
Antimony	mg/L	0.006	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--
Arsenic	mg/L	0.01	NA	0.0114	0.0148	0.0155	0.0134	0.0125	0.0118	0.0115	0.0132	--	--	--	--	--
Barium	mg/L	2.0	NA	0.123	0.135	0.147	0.138	0.137	0.143	0.121	0.136	--	--	--	--	--
Beryllium	mg/L	0.004	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--
Cadmium	mg/L	0.005	NA	<0.0001	0.000444	<0.0001	0.000101	<0.0001	<0.0001	<0.0001	<0.0001	--	--	--	--	--
Chromium	mg/L	0.1	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Cobalt	mg/L	NA	0.006	0.0015	0.00235	0.00244	0.00228	0.00263	0.0021	0.0018	0.0018	--	--	--	--	--
Lead	mg/L	NA	0.015	<0.0005	0.000888	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--
Lithium	mg/L	NA	0.040	0.062	0.0544	0.0556	0.0552	0.0588	0.0555	0.0502	0.0614	--	--	--	--	--
Mercury	mg/L	0.002	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--
Molybdenum	mg/L	NA	0.100	0.00264	0.00431	0.00401	0.00412	0.00332	0.00302	0.00317	0.00304	--	--	--	--	--
Radium-226 & 228	pCi/L	5	NA	0.247	1.4	1.73	0.258	0.63	0.781	0.913	1.54	--	--	--	--	--
Selenium	mg/L	0.05	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Thallium	mg/L	0.002	NA	<0.001	0.00139	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--

Footnotes:

< - Not detected at the associated reporting limit.

J- - Estimated concentration, result may be biased low

J - Estimated concentration.

J+ - Estimated concentration, result may be biased high.

GWPS - Groundwater Protection Standard.

MCL - Maximum Contaminant Level.

NA - Not applicable.

[a] Maximum contaminant level (MCL).

[b] Groundwater protection standard (GWPS) established under 40 CFR 257.95(h)(2).

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample ID:		DP03-GW-0423	MW105-GW-1023	DP03-GW-1023	MW105-GW-1123	MW105-GW-0424	DP03-GW-0424	MW105-GW-1024	DP03-GW-1024	MW105-GW-1224	MW105-GW-0425	DP03-GW-0425	MW105-GW-0625
Sample Date:		4/27/2023	10/4/2023	10/4/2023	11/29/2023	4/3/2024	4/3/2024	10/2/2024	10/2/2024	12/10/2024	4/2/2025	4/2/2025	6/11/2025
		(Duplicate)		(Duplicate)			(Duplicate)		(Duplicate)			(Duplicate)	
Parameters	**Units**												
Appendix III													
Boron	mg/L	0.155	0.189	0.206	--	0.174	0.187	0.211	<0.500	--	0.191	0.188	--
Calcium	mg/L	174	159	164	--	168	165	196	209	221	162	162	--
Chloride	mg/L	18.2	22.7	22.9	24.0	23.4	23.3	34.3	38.9	--	22.4	20.5	--
Fluoride	mg/L	<1.00	<1.00	<1.00	--	<1.00	<1.00	<1.00	<1.00	--	<1.00	<1.00	--
pH, lab	s.u.	7.2 J	7.9 J	7.9 J	7.2 J	7.1 J	7.2 J	7.0 J	7.0 J	--	7.7 J	7.7 J	7.1 J
Sulfate	mg/L	148 J-	126	127	--	128	128	171	173	176	154	151	--
Total dissolved solids (TDS)	mg/L	710	730	730	768	738	722	884	882	--	762	758	--
Appendix IV													
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-105	MW-105	MW-105	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108
Sample ID:		MW105-GW-1025	DP03-GW-1025	MW105-GW-1225	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW108-GW-1022	DP02-GW-1022	MW108-GW-0423
Sample Date:		10/2/2025	10/2/2025 (Duplicate)	12/9/2025	7/30/2021	8/2/2021	8/16/2021	8/30/2021	9/13/2021	9/20/2021	10/6/2021	10/14/2021	10/25/2021	4/27/2022	10/11/2022	10/11/2022 (Duplicate)	4/26/2023
Parameters	**Units**																
Appendix III																	
Boron	mg/L	0.213	0.212	--	0.175	0.176	0.157	0.178	0.18	0.18	0.224	0.218	0.185	0.202	0.190	0.175	0.221
Calcium	mg/L	187	176	159	140	126	131	126	130	135	118	125	121	137	147	145	139
Chloride	mg/L	33.7	36.0	--	21.5	21.1	19.6	19.7	19.5	18.9	19.5	20	19.9	20.7	19.1	18.5	18.0
Fluoride	mg/L	<1.00	<1.00	--	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00
pH, lab	s.u.	7.5 J	7.6 J	7.0 J	7.1	7	7	7	7	7.1	7	7.1	7.1	7.1 J	7.1 J	7.1 J	7.1 J
Sulfate	mg/L	181	183	--	12.3	15.3	7.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	6.43	<5.00	<5.00	<5.00 J
Total dissolved solids (TDS)	mg/L	898	888	--	646	668	638	628	694	608	600	590	608	624	676	662	624
Appendix IV																	
Antimony	mg/L	--	--	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--
Arsenic	mg/L	--	--	--	0.247	0.236	0.28	0.288	0.305	0.261	0.26	0.249	--	--	--	--	--
Barium	mg/L	--	--	--	0.492	0.45	0.469	0.434	0.399	0.399	0.366	0.381	--	--	--	--	--
Beryllium	mg/L	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--
Cadmium	mg/L	--	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	--	--	--	--	--
Chromium	mg/L	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Cobalt	mg/L	--	--	--	0.00168	0.00185	0.00141	0.00123	0.00126	0.00113	0.00119	0.00126	--	--	--	--	--
Lead	mg/L	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--
Lithium	mg/L	--	--	--	0.0106	<0.01	0.0107	0.0113	0.0137	0.0124	0.0103	0.0137	--	--	--	--	--
Mercury	mg/L	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--
Molybdenum	mg/L	--	--	--	0.00449	0.00311	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	0.89	1.38	1.85	0.539	0.894	2.15	1.17	1.79	--	--	--	--	--
Selenium	mg/L	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Thallium	mg/L	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-133	MW-133	MW-133
Sample ID:		MW108-GW-1023	MW108-GW-1123	MW108-GW-0424	MW108-GW-0624	MW108-GW-1024	MW108-GW-1224	MW108-GW-0425	MW108-GW-0625	MW108-GW-1025	MW108-GW-1225	MW-133	MW-133	MW-133
Sample Date:		10/4/2023	11/29/2023	4/3/2024	6/4/2024	10/2/2024	12/10/2024	4/2/2025	6/11/2025	10/1/2025	12/9/2025	3/16/2016	5/16/2016	5/31/2016
Parameters	**Units**													
Appendix III														
Boron	mg/L	0.224	--	0.227	0.160	0.222	--	0.221	--	0.190	--	<0.200	<0.200	--
Calcium	mg/L	109	--	112	--	145	--	127	--	139	--	177	172	--
Chloride	mg/L	16.7	--	18.3	--	25.2	23.7	27.4	--	20.8	--	7.64	6.57	--
Fluoride	mg/L	<1.00	--	<1.00	--	<1.00	--	1.12	<1.00	<1.00	--	<0.500	<0.500	--
pH, lab	s.u.	7.9 J	7.1 J	7.1 J	--	7.0 J	--	7.5 J	6.9 J	7.5 J	7.0 J	7.27	7.06	--
Sulfate	mg/L	<5.00	--	<5.00	--	<5.00	--	<5.00	--	<5.00	--	220	214	--
Total dissolved solids (TDS)	mg/L	614	--	620	--	702	796	682	--	688	--	836	836	820
Appendix IV														
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	0.00574	0.0143	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	0.079	0.188	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.005	<0.005	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	0.00147	0.00152	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	0.0892	0.0875	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	<0.002	<0.002	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	0.313	0.642	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.005	<0.005	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
Sample ID:		**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**	**MW-133**
Sample Date:		**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**7/30/2018**	**10/10/2018**	**4/15/2019**	**4/16/2019**	**5/20/2019**	**9/18/2019**	**10/7/2019**	**10/28/2019**	**12/9/2019**	**12/12/2019**
Parameters	**Units**																		
Appendix III																			
Boron	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200 Dup <0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	--	--	0.217	<0.200	<0.200	--
Calcium	mg/L	173	181	141	135	171	184	150	158	168	170	224	214	--	--	179	163	202	--
Chloride	mg/L	9.86	11.6	10.8	8.74	13.4	17.5	13.1	14.5	18.6	21	46.1	36.3	36.9	--	30.5	25.8	46.6	52.1
Fluoride	mg/L	<0.500	<0.500	0.517	1.3	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	2.47	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
pH, lab	s.u.	7.1	7.4	7.1	7.1	7	7	7.2	7.2	7.1	7.2	7.2	7	--	--	7.1	7.2	6.9	--
Sulfate	mg/L	229	216	207	157	231	268	190	174	178	198	275	294	--	--	232	210	273	--
Total dissolved solids (TDS)	mg/L	1390	862	836	740	894	1240	978	718	728	776	972	926	--	--	874	772	988	--
Appendix IV																			
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.001	--	--	<0.001	--	--	--	--
Arsenic	mg/L	0.00703	0.00569	0.00452	0.0139	0.0113	0.00438	--	--	0.0174	--	0.00244	--	--	0.0113	0.0066	--	0.00208	--
Barium	mg/L	0.0881	0.0828	0.0704	0.198	0.152	0.062	--	--	0.208	--	0.069	--	--	0.163	0.117	--	0.062	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.001	--	--	<0.001	--	--	--	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	<0.0005	--	--	<0.0001	--	--	0.000121	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	<0.005	--	--	<0.005	--	--	--	--
Cobalt	mg/L	0.00167	0.00181	0.00197	<0.0005	0.00157	0.00254	--	--	0.00103	--	0.00332	--	--	0.00153	0.00192	--	0.00147	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	<0.0005	--	--	<0.0005	--	--	<0.0005	--
Lithium	mg/L	0.0829	0.0779	0.081	0.0766	0.0767	0.0951	--	--	0.0745	--	0.0901	--	--	0.0829	0.0818	--	0.0847	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	<0.0002	--	--	<0.0002	--	--	--	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	0.00319	<0.002	--	--	<0.002	--	<0.002	--	--	<0.002	<0.002	--	<0.002	--
Radium-226 & 228	pCi/L	0.456	0.597	0.487	0.466	0.537	0.348	--	--	0.792	--	0.215	--	--	0.708	0.397	--	0.142	--
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	<0.005	--	--	<0.005	<0.005	--	<0.005	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.001	--	--	<0.001	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
Sample ID:		MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW133-GW-1022	MW133-GW-1122	MW133-GW-0123
Sample Date:		2/10/2020	4/20/2020	6/29/2020	10/12/2020	11/16/2020	12/1/2020	4/19/2021	5/3/2021	6/29/2021	10/25/2021	11/8/2021	4/27/2022	6/9/2022	10/12/2022	11/10/2022	1/17/2023
Parameters	**Units**																
Appendix III																	
Boron	mg/L	<0.200	0.155	--	0.139	0.11	--	0.167	0.128	--	0.161	0.161	0.118	0.140	0.151	0.289	--
Calcium	mg/L	215	180	--	217	177	--	130	144	--	135	135	142	138	187	200	--
Chloride	mg/L	50.8	36.7	29	78.8	87	101	142	152	140	137	123	153	134	107	88.8	--
Fluoride	mg/L	<0.500	<0.500	--	<0.500	<0.500	--	<0.500	<0.500	--	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	--
pH, lab	s.u.	7.1	7	--	7	7.1	--	7.2	7.1	--	7.2	7.2	7.4 J	7.3 J	7.3 J	7.4 J	--
Sulfate	mg/L	331	260	--	271	221	--	133	146	--	146	152	148	157	219	214	--
Total dissolved solids (TDS)	mg/L	1000	852	--	960	876	--	742	742	--	672	680	728	830	920	906	--
Appendix IV																	
Antimony	mg/L	--	--	--	--	<0.001	--	--	<0.002	--	--	<0.002	--	<0.00200	--	<0.00200	--
Arsenic	mg/L	<0.002	--	--	--	0.00205	--	--	0.008	--	--	0.00443	--	0.0152	--	0.0156	--
Barium	mg/L	0.0517	--	--	--	0.0562	--	--	0.189	--	--	0.102	--	0.249	--	0.212	--
Beryllium	mg/L	--	--	--	--	<0.001	--	--	<0.001	--	--	<0.001	--	<0.00100	--	<0.00100	--
Cadmium	mg/L	0.000156	--	--	--	0.000116	--	--	0.000102	--	--	<0.0001	--	<0.000100	--	<0.000100	--
Chromium	mg/L	--	--	--	--	<0.005	--	--	<0.005	--	--	<0.005	--	<0.00500	--	<0.00500	--
Cobalt	mg/L	0.00276	--	--	--	0.0041	--	--	0.00332	--	--	0.00183	--	<0.000500	--	0.00128	--
Lead	mg/L	<0.0005	--	--	--	<0.0005	--	--	<0.0005	--	--	<0.0005	--	<0.000500	--	<0.000500	--
Lithium	mg/L	0.0847	--	--	--	0.0823	--	--	0.0741	--	--	0.0662	--	0.0768	--	0.0764	--
Mercury	mg/L	--	--	--	--	<0.0002	--	--	<0.0002	--	--	<0.0002	--	<0.000200	--	--	<0.000200
Molybdenum	mg/L	<0.002	--	--	--	<0.002	--	--	<0.002	--	--	<0.002	--	<0.00200	--	<0.00200	--
Radium-226 & 228	pCi/L	0.114	--	--	--	0.25	--	--	0.00961	--	--	0.537	--	0.404	--	<0.398	--
Selenium	mg/L	<0.005	--	--	--	<0.005	--	--	<0.005	--	--	<0.005	--	<0.00500	--	<0.00500	--
Thallium	mg/L	--	--	--	--	<0.001	--	--	<0.001	--	--	<0.001	--	<0.00100	--	<0.00100	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-156	MW-156
Sample ID:		MW133-GW-0423	MW133-GW-0623	DP01-GW-0623	MW133-GW-1023	MW133-GW-1123	MW133-GW-0424	MW133-GW-1024	MW133-GW-0425	MW133-GW-0625	MW133-GW-1025	MW133-GW-1225	MW-156	MW-156
Sample Date:		4/26/2023	6/27/2023	6/27/2023 (Duplicate)	10/4/2023	11/29/2023	4/3/2024	10/2/2024	4/2/2025	6/11/2025	10/1/2025	12/9/2025	3/16/2016	5/16/2016
Parameters	**Units**													
Appendix III														
Boron	mg/L	0.289	0.451	0.418	0.524	--	0.493	0.385	0.376	--	0.394	--	0.224	0.226
Calcium	mg/L	232	192	194	162	--	161	192	190	--	184	--	210	204
Chloride	mg/L	107	--	--	104	--	109	76.7	101	--	81.2	--	10.1	8.14
Fluoride	mg/L	<1.00	--	--	<1.00	--	<1.00	<1.00	<1.00	--	<1.00	--	<0.500	<0.500
pH, lab	s.u.	7.4 J	--	--	7.8 J	7.2 J	7.1 J	7.0 J	7.7 J	7.0 J	7.6 J	7.1 J	7	6.87
Sulfate	mg/L	269 J-	--	--	148	--	131	189	272	--	185	--	242	202
Total dissolved solids (TDS)	mg/L	1070	--	--	810	--	780	916	1020	--	908	--	898	878
Appendix IV														
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.002	<0.002
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.112	0.0944
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.005	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.0751	0.0739
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.002	<0.002
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	0.532	0.144
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.0263	0.0125
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156
Sample ID:		MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156
Sample Date:		5/31/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017	5/1/2018	10/10/2018	11/14/2018	4/16/2019	10/28/2019	12/12/2019	4/20/2020	10/12/2020	12/1/2020	4/19/2021	10/25/2021
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	--	0.23	0.242	0.228	0.229	<0.200	0.223	0.227	<0.200	0.374	0.217	0.252	0.215	--	0.238	0.219	--	0.19	0.15
Calcium	mg/L	--	218	222	184	214	215	203	197	203	220	--	202	205	--	186	210	--	195	218
Chloride	mg/L	--	12.5	17.2	20	13.6	24.3	23.3	17.1	26.3	65.8	27.2	24	67.6	86.7	28.1	39.9	41.7	24.9	46.6
Fluoride	mg/L	--	<0.500	<0.500	0.531	1.21	<0.500	0.526	<0.500	0.566	0.543	--	<0.500	<0.500	--	<0.500	<0.500	--	<0.500	<0.500
pH, lab	s.u.	--	6.95	7.2	7	6.9	6.9	7	7	7.1	7.2	--	6.9	7.1	--	6.9	7	--	7	7
Sulfate	mg/L	--	247	232	223	198	208	213	197	201	191	--	204	213	--	270	250	--	193	231
Total dissolved solids (TDS)	mg/L	920	1140	904	890	890	986	1020	902	936	956	--	898	1000	--	904	870	--	886	798
Appendix IV																				
Antimony	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	0.101	0.111	0.099	0.102	0.105	0.109	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	0.0671	0.0615	0.0666	0.0676	0.062	0.072	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	0.639	0.189	0.828	0.357	0.0848	0.395	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	0.0202	0.0259	0.0103	0.0146	0.0215	0.0209	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-156	MW-156	MW-156	MW-156	MW-156D	MW-156D	MW-156D	MW-156D	MW-156D	MW-156D	MW-156D
Sample ID:		MW156-GW-1024	MW156-GW-1224	MW156-GW-1025	MW156-GW-1225	MW156D-GW-0424	MW156D-GW-0624	MW156D-GW-1024	MW156D-GW-0125	MW156D-GW-0425	MW156D-GW-0725	MW156D-GW-1025
Sample Date:		10/3/2024	12/10/2024	10/2/2025	12/9/2025	4/3/2024	6/4/2024	10/3/2024	1/23/2025	4/3/2025	7/24/2025	10/2/2025
Parameters	**Units**											
Appendix III												
Boron	mg/L	0.192	--	0.237	--	0.131	0.105	0.215	0.202	0.217	0.148	0.244
Calcium	mg/L	274	296	242	--	192	305	342	236	325	227 J	221
Chloride	mg/L	36.6	--	75.7	45.8	21.5	37.5	46.6	52.3	30.5	14.9	18.0
Fluoride	mg/L	<1.00	--	<1.00	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	6.8 J	--	7.5 J	--	7.2 J	7.3 J	6.8 J	7.0 J	7.6 J	7.2 J	7.6 J
Sulfate	mg/L	393	368	301	--	186	474	722	299	494	345	357
Total dissolved solids (TDS)	mg/L	1150	--	1130	--	780	1290	1620	1060	1330	1060	1030
Appendix IV												
Antimony	mg/L	--	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	--	--	0.0198	0.0202	0.00491	0.00361	0.0101	0.0108	0.0122
Barium	mg/L	--	--	--	--	0.262	0.348	0.0640	0.0711	0.0894	0.0634	0.0685
Beryllium	mg/L	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	--	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	--	--	0.00148	0.000685	0.00907	0.00302	0.00293	0.00260	0.00197
Lead	mg/L	--	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	--	0.0856	0.0936	0.0993	0.0879	0.0992	0.0779	0.0855
Mercury	mg/L	--	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	--	--	--	--	0.00211	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Radium-226 & 228	pCi/L	--	--	--	--	1.59	0.861 J	1.06	1.53	0.602	0.884	1.10
Selenium	mg/L	--	--	--	--	<0.00500	<0.00500	0.00648	0.00981	<0.00500	<0.00500	0.00749
Thallium	mg/L	--	--	--	--	<0.00100	<0.00100	0.00116	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
Sample ID:		**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW-157**	**MW157-GW-1022**
Sample Date:		**3/16/2016**	**5/16/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**10/10/2018**	**4/16/2019**	**10/28/2019**	**4/20/2020**	**10/12/2020**	**4/19/2021**	**10/25/2021**	**10/12/2022**
Parameters	**Units**																		
Appendix III																			
Boron	mg/L	<0.200	<0.200	0.327	0.217	0.208	<0.200	0.412	0.275	0.221	<0.200	0.211	0.249	0.287	0.173	0.29	0.21	0.221	0.325
Calcium	mg/L	207	218	209	222	203	212	221	210	195	207	220	225	196	180	226	175	198	238
Chloride	mg/L	10.3	9.49	11.1	8.08	8.7	7.25	41.1	14.3	11.2	11.9	27.8	39.9	40.6	17.1	41.5	24.3	74.9	74.9
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	<0.500	0.664	<0.500	0.572	<0.500	0.608	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	6.94	6.82	6.81	7.1	6.9	6.9	6.7	7.9	7	7	7.5	7.8	6.9	6.9	7.2	7	7	7.1 J
Sulfate	mg/L	226	163	226	198	221	189	217	204	218	200	221	196	222	186	200	156	179	162
Total dissolved solids (TDS)	mg/L	950	948	1030	946	996	848	1100	1070	1020	906	928	966	948	846	886	786	792	796
Appendix IV																			
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.105	0.0873	0.0931	0.106	0.107	0.0989	0.104	0.107	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	0.00056	<0.0005	<0.0005	0.000522	0.000746	0.00106	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0908	0.0877	0.0794	0.0759	0.083	0.0801	0.0704	0.0861	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.272	0.651	0.394	0.708	0.532	0.652	0.419	0.303	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.0218	0.0164	0.00823	0.0151	0.0131	0.0159	<0.005	0.00659	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-157	MW-157	MW-157	MW-157	MW-157	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
Sample ID:		MW157-GW-1023	MW157-GW-1024	MW157-GW-1224	MW157-GW-0425	MW157-GW-1025	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
Sample Date:		10/5/2023	10/3/2024	12/10/2024	4/2/2025	10/2/2025	3/16/2016	5/16/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017	5/1/2018	10/10/2018
Parameters	**Units**																
Appendix III																	
Boron	mg/L	0.355	<0.500	--	0.344	0.296	0.333	0.437	0.827	0.616	0.447	0.519	0.734	0.527	0.753	0.606	0.965
Calcium	mg/L	211	221	--	222	207	371	414	490	356	304	306	344	283	307	253	325
Chloride	mg/L	63.7	51.3	57.8	56.1	55.2	28.8	31.9	101	28	26.7	27.1	65	29.5	38.3	23.3	51.2
Fluoride	mg/L	<1.00	<1.00	--	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	0.762	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.7 J	6.9 J	--	7.5 J	7.4 J	6.83	6.69	6.74	7	6.7	6.7	6.8	7.9	6.9	6.9	6.9
Sulfate	mg/L	212	186	--	197	186	845	754	994	707	771	735	809	564	692	482	694
Total dissolved solids (TDS)	mg/L	942	958	--	984	896	1810	1730	2290	1690	1720	1640	1960	1770	1780	1200	1600
Appendix IV																	
Antimony	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--
Arsenic	mg/L	--	--	--	--	--	0.00252	0.0036	<0.002	0.00251	0.00346	0.00276	<0.002	<0.002	--	--	--
Barium	mg/L	--	--	--	--	--	0.0308	0.0311	0.0285	0.0331	0.0341	0.026	0.0226	0.0268	--	--	--
Beryllium	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--
Cadmium	mg/L	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
Chromium	mg/L	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
Cobalt	mg/L	--	--	--	--	--	0.00328	0.00207	0.00108	0.00456	0.00546	0.00366	0.00127	0.00165	--	--	--
Lead	mg/L	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--
Lithium	mg/L	--	--	--	--	--	0.118	0.119	0.129	0.105	0.119	0.105	0.0977	0.103	--	--	--
Mercury	mg/L	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--
Molybdenum	mg/L	--	--	--	--	--	<0.002	<0.002	<0.002	0.00205	<0.002	<0.002	<0.002	<0.002	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	0.0438	0.239	0.0871	0.301	0.457	0.322	0.163	0.421	--	--	--
Selenium	mg/L	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
Thallium	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
Sample ID:		MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW158-GW-1022	MW158-GW-0423	MW158-GW-1023	MW158-GW-0424	MW158-GW-1024	MW158-GW-0425	MW158-GW-1025
Sample Date:		4/16/2019	10/28/2019	12/12/2019	4/20/2020	10/12/2020	4/19/2021	10/25/2021	4/28/2022	10/10/2022	4/26/2023	10/4/2023	4/3/2024	10/3/2024	4/2/2025	10/2/2025
Parameters	**Units**															
Appendix III																
Boron	mg/L	1.04	0.765	--	0.977	0.799	0.703	0.872	0.707	0.913	0.407	0.406	0.467	0.803	0.475	0.651
Calcium	mg/L	316	262	--	278	271	185	235	196	279	234	237	279	276	363	306
Chloride	mg/L	50.2	35.1	--	48.6	38.1	33.3	40.9	38.0	42.1	39.2	40.1	44.3	27.8	33.9	28.3
Fluoride	mg/L	<0.500	1.04	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	6.9	7	--	6.8	7.2	6.9	6.8	7.0 J	7.0 J	7.1 J	7.7 J	6.9 J	6.8 J	7.5 J	7.4 J
Sulfate	mg/L	736	505	--	701	418	294	436	248	273	303 J-	361	398	355	524	403
Total dissolved solids (TDS)	mg/L	1860	1250	--	1520	1120	930	1030	790	954	988	1130	1210	1150	1560	1310
Appendix IV																
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
Sample ID:		MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	DUP-1
Sample Date:		3/16/2016	5/16/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017	5/1/2018	10/10/2018	4/16/2019	10/28/2019	4/20/2020	10/12/2020	4/19/2021	10/25/2021	4/28/2022	4/28/2022 (Duplicate)
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	<0.200	<0.200	0.208	0.347	0.203	<0.200	0.254	0.348	0.274	<0.200	<0.200	0.284	<0.200	0.313	0.246	0.176	0.194	0.361	0.361
Calcium	mg/L	162	183	206	223	162	166	195	197	181	155	165	176	188	171	179	158	173	192	181
Chloride	mg/L	14	16.1	17.8	17.7	17.3	27.6	19.3	17	16.3	18.5	16.4	12.8	18.2	13.9	20.3	15.5	20.8	19.8	20.5
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	0.895	0.602	0.531	0.654	<0.500	1.18	0.598	<0.500	0.75	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.22	6.88	6.94	7.2	7.3	7	6.9	7	7	7	7	7.3	7.1	7.1	7.1	7	7.1	7.2 J	7.1 J
Sulfate	mg/L	157	168	232	287	136	113	223	222	184	101	116	236	130	181	136	112	133	208	159
Total dissolved solids (TDS)	mg/L	748	836	968	968	768	722	1020	1010	892	650	672	890	710	754	670	670	588	712	686
Appendix IV																				
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.123	0.106	0.102	0.101	0.122	0.109	0.0894	0.1	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00081	<0.0005	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00187	<0.0005	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0537	0.0727	0.0705	0.0686	0.0594	<0.0500	0.0683	0.0772	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.557	0.32	0.533	0.557	0.446	0.023	0.27	0.784	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.00773	0.00851	0.0114	0.00757	0.00521	<0.005	0.00789	0.00802	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-190	MW-190	MW-190	MW-190
Sample ID:		MW-159	MW159-GW-1022	MW159-GW-0423	MW159-GW-1023	MW159-GW-1123	MW159-GW-0424	MW159-GW-1024	MW159-GW-0425	MW159-GW-0625	MW159-GW-1025	MW-190	MW-190	MW-190	MW-190
Sample Date:		6/10/2022	10/11/2022	4/27/2023	10/4/2023	11/29/2023	4/3/2024	10/3/2024	4/2/2025	6/11/2025	10/2/2025	3/16/2016	5/16/2016	7/18/2016	10/4/2016
Parameters	**Units**														
Appendix III															
Boron	mg/L	0.375	0.511	0.356	0.289	--	0.301	<0.500	0.308	--	0.308	<0.200	<0.200	<0.200	<0.200
Calcium	mg/L	--	244	183	194	--	212	231	198	--	188	104	127	113	133
Chloride	mg/L	--	17.1	16.8	18.6	--	18.9	16.2	15.6	--	13.5	8.27	10.8	13.2	11.6
Fluoride	mg/L	--	<0.500	<1.00	<1.00	--	<1.00	<1.00	<1.00	--	<1.00	<0.500	<0.500	0.613	<0.500
pH, lab	s.u.	--	7.1 J	7.1 J	7.8 J	7.0 J	7.0 J	6.9 J	7.6 J	6.9 J	7.5 J	7.27	7.08	7.1	7.3
Sulfate	mg/L	--	180	171 J-	219	--	267	255	213	--	202	102	127	136	139
Total dissolved solids (TDS)	mg/L	--	802	688	864	--	880	874	866	--	850	484	572	684	614
Appendix IV															
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	0.0911	0.076	0.0657	0.082
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	0.00111	0.0012
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	0.0537	0.0633	0.0582	0.0574
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	<0.002	<0.002	<0.002	<0.002
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	0.294	0.117	0.505	0.361
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
Sample ID:		MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
Sample Date:		1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017	2/13/2018	5/1/2018	10/10/2018	11/14/2018	4/16/2019	5/20/2019	10/28/2019	12/12/2019	4/20/2020	6/29/2020	10/12/2020	12/1/2020	4/19/2021	6/29/2021
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	--	<0.200	<0.200	--	<0.200	--	<0.200	--	0.208	0.197	0.169	--	0.148	--
Calcium	mg/L	119	139	136	137	184	163	145	166	150	147	--	201	171	150	--	188	148	140	--
Chloride	mg/L	7.78	11.6	10.3	11.3	34	8.29	8.46	16.3	12.1	14.1	--	18.2	18.3	19.4	17.5	16.5	12	9.4	--
Fluoride	mg/L	<0.500	0.774	0.698	0.574	<0.500	--	0.676	0.653	--	<0.500	--	0.583	--	<0.500	--	<0.500	--	<0.500	--
pH, lab	s.u.	7.2	7.1	7.1	8	7	7.2	7.1	7.6	--	7	7.2	7.1	--	7.1	--	7.2	--	7.1	--
Sulfate	mg/L	121	159	135	154	403	153	153	227	184	220	224	290	309	284	272	246	176	129	--
Total dissolved solids (TDS)	mg/L	584	688	708	868	1240	726	688	804	--	834	--	962	--	926	--	834	--	650	742
Appendix IV																				
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.0983	0.103	0.0951	0.101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0541	0.0563	0.0511	0.0632	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.4	0.516	0.298	0.969	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
Sample ID:		MW-190	MW-190	DUP-2	MW-190	Dup-1	MW190-GW-1022	DP01-GW-1022	MW190-GW-0423	MW190-GW-1023	MW190-GW-0424	MW190-GW-0624	MW190-GW-1024	MW190-GW-0425	MW190-GW-1025
Sample Date:		10/25/2021	4/26/2022	4/26/2022 (Duplicate)	6/10/2022	6/10/2022 (Duplicate)	10/11/2022	10/11/2022 (Duplicate)	4/26/2023	10/4/2023	4/3/2024	6/4/2024	10/3/2024	4/2/2025	10/2/2025
Parameters	**Units**														
Appendix III															
Boron	mg/L	0.148	0.156	0.127	--	--	0.141	<0.100	0.128	0.122	0.109	--	<0.500	0.139	0.142
Calcium	mg/L	158	185	175	160	161	250	204	190	161	187	195	176	169	158
Chloride	mg/L	13.7	20.6	11.7	12.0	11.3	10.8	10.9	11.0	9.94	11.2	--	9.60	11.4	11.9
Fluoride	mg/L	<0.500	<0.500	<0.500	--	--	<0.500	<0.500	<1.00	<1.00	<1.00	--	<1.00	<1.00	<1.00
pH, lab	s.u.	7.1	7.3 J	7.2 J	--	--	7.2 J	7.2 J	7.2 J	7.9 J	7.0 J	--	7.0 J	7.7 J	7.5 J
Sulfate	mg/L	222	159	175	--	--	242	245	165 J-	169	211	177	169	212	246
Total dissolved solids (TDS)	mg/L	720	670	692	--	--	834	830	742	740	770	--	750	810	834
Appendix IV															
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191
Sample ID:		**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**	**MW-191**
Sample Date:		**3/16/2016**	**5/16/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**10/10/2018**	**4/16/2019**	**10/28/2019**	**4/20/2020**	**6/29/2020**	**10/12/2020**	**4/19/2021**	**10/25/2021**
Parameters	**Units**																		
Appendix III																			
Boron	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.133	--	0.134	0.163	0.131
Calcium	mg/L	129	170	143	152	132	136	141	130	125	132	145	139	162	147	--	164	149	157
Chloride	mg/L	9.12	8.88	12.5	12.3	10.2	12.4	11.9	11	11.6	10.9	10.3	11.2	10.2	10.8	--	11.9	10.5	12
Fluoride	mg/L	<0.500	<0.500	0.714	0.875	<0.500	0.686	<0.500	0.609	<0.500	0.712	0.618	<0.500	0.6	<0.500	--	<0.500	<0.500	<0.500
pH, lab	s.u.	7.29	6.94	6.98	7.1	7	7.1	7.1	8	7.1	7.1	7.1	7	7.1	7	--	7.3	7.3	7.2
Sulfate	mg/L	143	152	156	157	160	151	148	152	149	138	148	155	151	172	171	162	157	167
Total dissolved solids (TDS)	mg/L	694	780	836	760	730	680	858	838	740	684	694	698	754	784	--	692	722	640
Appendix IV																			
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.155	0.136	0.152	0.172	0.157	0.129	0.142	0.15	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0792	0.0848	0.0818	0.08	0.0787	0.0884	0.075	0.0881	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.155	0.442	0.673	0.179	0.284	0.353	0.225	0.504	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.00631	0.0101	0.0074	0.0216	0.00632	<0.005	0.00567	0.00657	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227
Sample ID:		MW191-GW-1022	MW191-GW-1023	MW191-GW-1024	MW191-GW-1224	MW191-GW-0425	MW191-GW-1025	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227
Sample Date:		10/11/2022	10/4/2023	10/3/2024	12/10/2024	4/2/2025	10/2/2025	3/16/2016	5/16/2016	5/31/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017
Parameters	**Units**																
Appendix III																	
Boron	mg/L	0.168	0.128	<0.500	--	0.149	0.150	<0.200	<0.200	--	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Calcium	mg/L	233	165	182	--	165	153	149	144	--	154	152	132	151	168	145	140
Chloride	mg/L	10.6	13.2	11.1	--	10.5	10.2	<5.00	<5.00	--	7.17	<5.00	<5.00	7.98	10.8	8.5	28.3
Fluoride	mg/L	<0.500	<1.00	<1.00	--	<1.00	<1.00	<0.500	<0.500	--	<0.500	<0.500	<0.500	0.642	<0.500	0.603	<0.500
pH, lab	s.u.	7.3 J	7.9 J	7.0 J	--	7.7 J	7.6 J	7.37	7.1	--	7.1	7.2	7.7	7.1	7.1	7.3	7.2
Sulfate	mg/L	219	196	220	233	187	186	85.8	65.3	--	90.4	74.6	96.9	113	137	110	101
Total dissolved solids (TDS)	mg/L	806	792	764	--	784	766	600	568	644	812	598	686	684	834	716	928
Appendix IV																	
Antimony	mg/L	--	--	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Arsenic	mg/L	--	--	--	--	--	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Barium	mg/L	--	--	--	--	--	--	0.143	0.139	--	0.131	0.142	0.153	0.153	0.159	0.145	--
Beryllium	mg/L	--	--	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Cadmium	mg/L	--	--	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Chromium	mg/L	--	--	--	--	--	--	<0.005	<0.005	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--
Cobalt	mg/L	--	--	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Lead	mg/L	--	--	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Lithium	mg/L	--	--	--	--	--	--	0.0763	0.0702	--	0.0741	0.0719	0.0727	0.0645	0.0733	0.0773	--
Mercury	mg/L	--	--	--	--	--	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
Molybdenum	mg/L	--	--	--	--	--	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	0.385	0.171	--	0.642	0.248	0.61	0.468	0.304	0.656	--
Selenium	mg/L	--	--	--	--	--	--	0.0288	0.00883	--	0.021	0.0112	0.0105	<0.005	0.0207	0.0105	--
Thallium	mg/L	--	--	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227D
Sample ID:		MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW227-GW-1024	MW227-GW-1224	MW227-GW-1025	MW227D-GW-0424
Sample Date:		2/13/2018	5/1/2018	7/31/2018	10/10/2018	11/14/2018	4/16/2019	10/28/2019	4/20/2020	10/12/2020	12/1/2020	4/19/2021	10/25/2021	10/2/2024	12/10/2024	10/1/2025	4/4/2024
Parameters	**Units**																
Appendix III																	
Boron	mg/L	--	<0.200	--	<0.200	--	<0.200	<0.200	0.12	0.17	--	0.179	0.143	<0.500	--	0.140	0.110
Calcium	mg/L	--	149	--	185	168	147	156	128	188	159	115	160	226	205	164	154
Chloride	mg/L	8.07	23.3	11.1	18.1	--	6.98	5.71	11.3	20.2	20.6	6.55	15.5	20.2	--	8.72	12.3
Fluoride	mg/L	--	0.752	<0.500	<0.500	--	<0.500	0.58	<0.500	<0.500	--	<0.500	<0.500	<1.00	--	<1.00	<1.00
pH, lab	s.u.	--	7.1	--	7.4	--	7.1	7.3	7.2	7.2	--	7.3	7.1	7.0 J	--	7.5 J	7.1 J
Sulfate	mg/L	--	116	--	206	189	110	89.4	89	150	--	46.7	112	284	237	272	195
Total dissolved solids (TDS)	mg/L	--	700	--	784	--	604	608	600	716	--	492	570	918	--	852	690
Appendix IV																	
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.00200
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0129
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.412
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.00100
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.000200
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.00500
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00110
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.000500
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0654
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.000200
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00251
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.30
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.00500
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-227D	MW-227D	MW-227D	MW-227D	MW-227D	MW-227D	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
Sample ID:		MW227D-GW-0624	MW227D-GW-1024	MW227D-GW-0125	MW227D-GW-0425	MW227D-GW-0725	MW227D-GW-1025	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
Sample Date:		6/5/2024	10/2/2024	1/23/2025	4/2/2025	7/24/2025	10/1/2025	3/16/2016	5/16/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017
Parameters	**Units**															
Appendix III																
Boron	mg/L	<0.100	0.109	0.152	0.142	0.116	0.223	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Calcium	mg/L	166	157	152	166	127 J	181	166	174	171	189	176	202	187	182	177
Chloride	mg/L	11.9	16.2	14.5	7.76	7.12	27.9	6.25	12.2	8.58	7.56	8.81	11.3	11.8	10.2	12.4
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.712	0.529
pH, lab	s.u.	7.3 J	9.1 J	7.0 J	7.7 J	7.1 J	7.7 J	7.23	6.97	6.85	7	7	6.9	6.9	7	7
Sulfate	mg/L	219	199	175	251	155	223	110	184	131	99.7	132	201	173	149	173
Total dissolved solids (TDS)	mg/L	778	758	740	810	638	910	764	842	892	808	868	912	892	858	848
Appendix IV																
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Arsenic	mg/L	0.0136	0.0111	0.0107	0.0137	0.0200	<0.00200	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Barium	mg/L	0.480	0.373	0.279	0.367	0.323	0.107	0.158	0.147	0.146	0.185	0.174	0.171	0.153	0.17	--
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Cadmium	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--
Cobalt	mg/L	<0.000500	0.000570	0.00124	<0.000500	<0.000500	<0.000500	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Lithium	mg/L	0.0654	0.0672	0.0665	0.0658	0.0543	0.0870	0.0833	0.108	0.0843	0.0817	0.0897	0.0906	0.0823	0.0883	--
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
Molybdenum	mg/L	0.00327	<0.00200	<0.00200	0.00211	0.00253	<0.00200	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Radium-226 & 228	pCi/L	1.07 J	1.16	1.06	1.09	0.899	3.19	0.422	0.396	0.224	0.299	0.869	0.421	0.419	0.164	--
Selenium	mg/L	<0.00500	<0.00500	0.0105	<0.00500	<0.00500	0.0417	0.00653	<0.005	<0.005	0.0241	0.017	<0.005	<0.005	0.00528	--
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-233	MW-233	MW-233	MW-233	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R
Sample ID:		**MW-233**	**MW-233**	**MW-233**	**MW-233**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**
Sample Date:		**5/1/2018**	**10/10/2018**	**11/14/2018**	**4/16/2019**	**3/16/2016**	**5/16/2016**	**5/31/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**2/13/2018**	**5/1/2018**	**7/31/2018**	**10/10/2018**	**11/14/2018**
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	<0.200	0.205	0.18	<0.200	0.273	0.249	--	0.269	0.303	0.245	0.318	0.254	0.306	0.267	--	0.246	--	0.277	--
Calcium	mg/L	190	187	--	177	135	197	--	166	176	165	164	167	171	141	--	159	--	180	--
Chloride	mg/L	11.1	11.1	--	11	12.2	24.3	--	17	13.6	24.7	12.3	19.3	22.7	16	--	11.5	--	41.2	46.6
Fluoride	mg/L	<0.500	<0.500	--	<0.500	<0.500	<0.500	--	<0.500	<0.500	<0.500	0.708	0.578	0.642	0.823	0.273	0.809	<0.500	<0.500	--
pH, lab	s.u.	7	7.2	--	7	7.17	6.93	--	6.98	7.2	7.1	7	7.1	7	7.1	--	7.1	--	7.1	--
Sulfate	mg/L	170	157	--	170	198	202	--	176	183	215	218	181	195	166	--	161	--	160	--
Total dissolved solids (TDS)	mg/L	832	738	--	854	894	1140	1100	1130	870	870	944	1090	1080	912	--	784	--	856	--
Appendix IV																				
Antimony	mg/L	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	0.157	0.123	--	0.11	0.144	0.142	0.152	0.142	0.15	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	<0.005	<0.005	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	<0.0005	<0.0005	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	0.126	0.166	--	0.139	0.115	0.15	0.115	0.129	0.157	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	<0.002	<0.002	--	<0.002	0.00297	<0.002	0.003	<0.002	<0.002	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	0.457	0.337	--	0.235	0.58	0.647	0.723	0.579	0.28	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	0.0124	0.0927	--	0.0605	0.0379	0.084	<0.005	0.0294	0.0455	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R
Sample ID:		MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW240R-GW-1022	MW240R-GW-0423	DP04-GW-0423	MW240R-GW-1023	DP04-GW-1023
Sample Date:		4/16/2019	5/20/2019	10/28/2019	12/12/2019	4/20/2020	6/29/2020	10/12/2020	12/1/2020	4/19/2021	10/25/2021	4/27/2022	10/12/2022	4/26/2023	4/26/2023 (Duplicate)	10/5/2023	10/5/2023 (Duplicate)
Parameters	**Units**																
Appendix III																	
Boron	mg/L	0.258	--	0.289	--	0.301	--	0.303	--	0.3	0.206	0.281	0.328	0.256	0.238	0.284	0.280
Calcium	mg/L	158	--	192	--	172	--	202	--	158	99.9	183	203	180	175	156	155
Chloride	mg/L	41.5	41.6	48.5	48.7	51.6	50.2	68.3	61.3	15.2	6.68	12.2	17.0	23.2	22.9	27.5	27.4
Fluoride	mg/L	<0.500	--	0.647	--	<0.500	--	<0.500	--	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	6.9	--	7.3	--	7	--	6.9	--	7.1	7.1	7.2 J	7.2 J	7.2 J	7.1 J	7.9 J	7.9 J
Sulfate	mg/L	183	--	169	--	194	--	212	--	226	75.2	179	183	218 J-	211 J-	194	195
Total dissolved solids (TDS)	mg/L	1010	--	994	--	966	--	940	--	870	412	818	760	860	812	758	772
Appendix IV																	
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-240R	MW-241R
Sample ID:		MW240R-GW-1123	MW240R-GW-0424	DP04-GW-0424	MW240R-GW-1024	DP04-GW-1024	MW240R-GW-0425	DP04-GW-0425	MW240R-GW-0625	MW240R-GW-1025	DP04-GW-1025	MW240R-GW-1225	MW-241R
Sample Date:		11/29/2023	4/4/2024	4/4/2024 (Duplicate)	10/2/2024	10/2/2024 (Duplicate)	4/2/2025	4/3/2025 (Duplicate)	6/11/2025	10/1/2025	10/1/2025 (Duplicate)	12/9/2025	3/16/2016
Parameters	**Units**												
Appendix III													
Boron	mg/L	--	0.287	0.330	<0.500	<0.500	0.305	0.303	--	0.306	0.305	--	<0.200
Calcium	mg/L	--	172	179	175	171	156	157	--	143	139	--	172
Chloride	mg/L	--	33.7	33.1	6.90	8.60	24.9	25.1	--	12.1	12.1	--	18.2
Fluoride	mg/L	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	--	<1.00	<1.00	--	<0.500
pH, lab	s.u.	7.2 J	7.1 J	7.1 J	7.0 J	7.1 J	7.8 J	7.5 J	7.1 J	7.7 J	7.7 J	7.2 J	7.12
Sulfate	mg/L	--	211	208	233	230	212	209	--	206	206	--	216
Total dissolved solids (TDS)	mg/L	--	866	862	814	850	842	806	--	748	766	--	884
Appendix IV													
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.00943
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.0972
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0005
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.00186
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	0.0967
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.002
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	0.223
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.005
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-241R	MW-242	MW-242	MW-242
Sample ID:		**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-241R**	**MW-242**	**MW-242**	**MW-242**
Sample Date:		**5/16/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**10/10/2018**	**11/14/2018**	**4/16/2019**	**10/28/2019**	**4/20/2020**	**10/12/2020**	**4/19/2021**	**3/16/2016**	**5/16/2016**	**7/18/2016**
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	0.204	0.222	<0.200	<0.200	0.224	0.19	<0.200	<0.200	0.185	0.203	0.218	<0.200	<0.200	<0.200
Calcium	mg/L	118	145	215	180	215	188	183	148	164	173	--	138	134	128	192	204	268	282	287
Chloride	mg/L	11.2	14.7	21.7	49.8	20.8	18.5	16.2	16	14.7	13.2	--	13.2	12.1	9.94	14.5	16.3	24.7	26	28.3
Fluoride	mg/L	<0.500	<0.500	<0.500	3.53	<0.500	<0.500	<0.500	<0.500	0.745	0.571	--	0.59	0.731	0.51	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.1	7.12	7.2	7.5	7	7.1	7.1	7.1	7.1	7.2	--	7.1	7.2	7.2	7.2	7.2	7.05	6.89	6.89
Sulfate	mg/L	116	150	251	329	327	269	283	196	201	209	--	167	137	125	227	312	364	351	313
Total dissolved solids (TDS)	mg/L	618	1060	908	948	1010	966	1000	892	828	744	--	690	636	614	780	1010	1300	1390	1470
Appendix IV																				
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001
Arsenic	mg/L	0.0409	0.0273	0.0419	0.044	0.0518	0.012	0.016	--	--	--	--	--	--	--	--	--	0.00275	<0.002	0.00256
Barium	mg/L	0.18	0.166	0.241	0.178	0.234	0.105	0.0952	--	--	--	--	--	--	--	--	--	0.125	0.103	0.117
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005
Cobalt	mg/L	<0.0005	0.000868	0.0013	0.000976	0.00055	0.000915	0.000802	--	--	--	--	--	--	--	--	--	0.000508	<0.0005	<0.0005
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005
Lithium	mg/L	0.1	0.0928	0.0939	0.0959	0.094	0.083	0.0965	--	--	--	--	--	--	--	--	--	<0.0500	<0.0500	<0.0500
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.00262	0.00236	0.00226	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--	--	--	<0.002	<0.002	<0.002
Radium-226 & 228	pCi/L	0.444	0.47	0.402	0.662	0.509	0.249	0.376	--	--	--	--	--	--	--	--	--	0.558	0.455	0.819
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
Sample ID:		**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-242**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**
Sample Date:		**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**10/10/2018**	**4/16/2019**	**5/20/2019**	**3/16/2016**	**5/16/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	0.213	<0.200	<0.200	<0.200	0.235	0.206	<0.200	<0.200	<0.200	--	<0.200	<0.200	<0.200	<0.200	<0.200	0.216	<0.200	0.235	0.2
Calcium	mg/L	261	228	284	262	258	270	259	270	231	--	148	162	155	159	137	157	140	142	129
Chloride	mg/L	28.4	31	30.1	33.5	31.1	32.9	35.7	37	40.7	41.8	15.3	16.5	15.4	14.1	14.8	14	15	15.8	14.4
Fluoride	mg/L	0.973	1.51	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	--	<0.500	<0.500	<0.500	<0.500	<0.500	0.563	0.576	<0.500	<0.500
pH, lab	s.u.	7.2	7	6.9	6.9	6.9	6.9	6.9	7.2	6.8	6.9	7.6	7.1	7.1	7	7.1	7.1	7	6.8	7.2
Sulfate	mg/L	281	350	369	367	334	390	342	359	400	--	149	154	150	130	146	138	128	132	130
Total dissolved solids (TDS)	mg/L	1160	1360	1530	1630	1540	1460	1260	1290	1220	--	746	820	872	774	724	902	818	780	846
Appendix IV																				
Antimony	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Arsenic	mg/L	0.0289	0.0294	0.00716	0.00311	0.00549	--	--	--	--	--	0.00453	0.00356	0.00283	0.0048	<0.002	<0.002	<0.002	<0.002	--
Barium	mg/L	0.24	0.239	0.153	0.115	0.152	--	--	--	--	--	0.243	0.248	0.225	0.241	0.241	0.236	0.216	0.228	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Chromium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--
Cobalt	mg/L	0.00121	0.000695	0.0006	0.000559	0.0012	--	--	--	--	--	0.00146	0.00173	0.00163	0.00145	0.00183	0.00173	0.00193	0.00185	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	<0.0005	<0.0005	<0.0005	0.000552	<0.0005	<0.0005	<0.0005	<0.0005	--
Lithium	mg/L	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--	--	--	--	--	0.0873	0.0966	0.0863	0.083	0.098	0.0933	0.0921	0.098	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	0.00243	0.00279	0.00243	0.0026	0.00246	0.00229	0.00241	0.00232	--
Radium-226 & 228	pCi/L	0.4	1.42	0.723	0.38	1.68	--	--	--	--	--	0.575	0.419	0.54	0.502	1.61	0.869	0.915	1.6	--
Selenium	mg/L	<0.005	<0.005	0.0109	<0.005	<0.005	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-243	MW-243	MW-243	MW-243	MW-243	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
Sample ID:		**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-243**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**
Sample Date:		**5/1/2018**	**7/31/2018**	**10/10/2018**	**11/14/2018**	**4/16/2019**	**3/16/2016**	**5/16/2016**	**7/18/2016**	**10/4/2016**	**1/30/2017**	**4/10/2017**	**7/11/2017**	**8/14/2017**	**10/10/2017**	**5/1/2018**	**10/10/2018**	**4/16/2019**	**10/28/2019**	**4/20/2020**
Parameters	**Units**																			
Appendix III																				
Boron	mg/L	<0.200	--	<0.200	--	<0.200	<0.200	<0.200	<0.200	<0.200	0.269	<0.200	<0.200	0.213	<0.200	<0.200	<0.200	<0.200	<0.200	0.121
Calcium	mg/L	129	--	130	--	119	129	131	134	137	116	138	126	126	122	120	136	121	132	147
Chloride	mg/L	15.2	--	13	--	13.1	10.5	36.1	9.18	10.5	8.83	9.66	10	9.88	9.38	9.88	9.37	11	9.5	11.5
Fluoride	mg/L	1.05	<0.500	0.705	<0.500	<0.500	0.803	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.55	<0.500	<0.500	0.531	0.712	<0.500	<0.500
pH, lab	s.u.	7.2	--	7.3	--	7.2	7.12	6.98	6.94	7.3	7.2	6.9	7	7.6	7	7	7.2	7	7.1	7
Sulfate	mg/L	118	--	116	--	114	65.5	90.2	69.4	45	45	56.9	66.7	58.4	47.6	36.1	52.5	52.5	56.5	71.2
Total dissolved solids (TDS)	mg/L	888	--	614	--	602	620	638	800	660	606	658	668	696	708	598	614	600	600	700
Appendix IV																				
Antimony	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	0.13	0.126	0.129	0.13	0.133	0.127	0.0975	0.109	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	0.56	0.504	0.505	0.529	0.566	0.525	0.465	0.522	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	0.00258	0.00207	0.0026	0.00249	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	0.997	1.3	1.11	1.49	2.81	1.55	0.998	1.86	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
Sample ID:		**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW-244**	**MW244-GW-1022**	**MW244-GW-0423**	**MW244-GW-1023**	**MW244-GW-1123**	**MW244-GW-0424**	**MW244-GW-1024**	**MW244-GW-1224**	**MW244-GW-0425**
Sample Date:		**10/12/2020**	**4/19/2021**	**10/25/2021**	**4/26/2022**	**6/13/2022**	**10/11/2022**	**4/27/2023**	**10/5/2023**	**11/29/2023**	**4/3/2024**	**10/2/2024**	**12/10/2024**	**4/2/2025**
Parameters	**Units**													
Appendix III														
Boron	mg/L	0.194	0.118	0.108	0.100	--	0.205	0.176	0.170	--	0.180	<0.500	--	0.140
Calcium	mg/L	151	147	149	176	165	208	132	132	--	120	188	147	136
Chloride	mg/L	10.4	11.8	12	11.6	--	9.33	9.93	11.8	--	11.4	12.1	--	11.1
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	--	<0.500	<1.00	<1.00	--	<1.00	<1.00	--	<1.00
pH, lab	s.u.	7	7.1	7.2	7.3 J	--	7.2 J	7.2 J	7.9 J	7.1 J	7.0 J	7.1 J	--	7.7 J
Sulfate	mg/L	43.2	83.3	66.6	102	--	21.0	8.02 J-	79.6	--	40.6	115	56.4	66.3
Total dissolved solids (TDS)	mg/L	616	722	668	716	--	616	526	580	--	592	790	--	676
Appendix IV														
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-244	MW-244	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
Sample ID:		MW244-GW-1025	MW244-GW-1225	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
Sample Date:		10/1/2025	12/9/2025	3/16/2016	5/16/2016	7/18/2016	10/4/2016	1/30/2017	4/10/2017	7/11/2017	8/14/2017	10/10/2017	5/1/2018	7/31/2018	10/10/2018	4/16/2019	5/20/2019	10/28/2019	4/20/2020
Parameters	**Units**																		
Appendix III																			
Boron	mg/L	<0.100	--	0.262	0.271	0.283	0.267	0.364	0.297	0.28	0.327	0.286	0.256	--	0.256	0.256	--	0.229	0.272
Calcium	mg/L	158	--	167	184	170	186	161	189	175	179	175	170	--	175	172	--	192	166
Chloride	mg/L	11.7	--	14.1	12.3	13.3	11.3	11.1	12.6	19.5	12.1	12.3	18.5	--	12.9	12.3	--	10.9	10.6
Fluoride	mg/L	<1.00	--	0.654	<0.500	<0.500	<0.500	<0.500	0.677	<0.500	0.609	<0.500	4.54	<0.500	0.506	0.773	1.03	0.612	<0.500
pH, lab	s.u.	7.7 J	--	7.03	6.98	6.94	7.1	7.4	6.9	6.9	6.9	7	7	--	7.1	6.9	--	7	7
Sulfate	mg/L	130	91.3	261	226	239	245	266	288	267	270	277	276	--	261	294	--	274	240
Total dissolved solids (TDS)	mg/L	812	--	954	924	1690	990	1020	1030	1050	1140	1340	1010	--	962	998	--	1070	976
Appendix IV																			
Antimony	mg/L	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	0.0116	0.00639	0.0051	0.00294	0.00412	0.00904	0.00621	0.00599	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	0.209	0.251	0.208	0.168	0.192	0.232	0.204	0.189	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	0.00115	0.000671	0.00104	0.00296	0.000929	0.00066	0.00268	0.00312	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	0.000854	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	0.138	0.155	0.145	0.13	0.151	0.151	0.135	0.167	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	0.00292	0.00283	0.00269	0.00237	0.00295	0.0036	0.00281	0.0024	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	1.13	0.816	0.817	0.517	1.58	1.3	1.24	1.98	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
Sample ID:		**MW-245**	**MW-245**	**MW-245**	**MW-245**	**MW245-GW-1022**	**MW245-GW-0423**	**MW245-GW-0623**	**MW245-GW-1023**	**MW245-GW-1123**	**MW245-GW-0424**	**MW245-GW-1024**	**MW245-GW-1224**	**MW245-GW-0425**
Sample Date:		**10/12/2020**	**12/1/2020**	**4/19/2021**	**10/25/2021**	**10/11/2022**	**4/27/2023**	**6/27/2023**	**10/4/2023**	**11/29/2023**	**4/3/2024**	**10/2/2024**	**12/10/2024**	**4/2/2025**
Parameters	**Units**													
Appendix III														
Boron	mg/L	0.298	--	0.302	0.299	0.391	0.349	--	0.334	--	0.327	<0.500	--	0.349
Calcium	mg/L	207	171	159	172	182	205	179	180	--	189	257	271	195
Chloride	mg/L	10.1	--	10.6	11.5	10.3	10.6	--	9.34	--	9.57	9.89	--	8.37
Fluoride	mg/L	<0.500	--	<0.500	<0.500	<0.500	<1.00	--	<1.00	--	<1.00	<1.00	--	<1.00
pH, lab	s.u.	6.9	--	7	7.1	7.1 J	7.2 J	--	7.7 J	7.0 J	7.0 J	7.0 J	--	7.6 J
Sulfate	mg/L	198	--	193	214	174	190 J-	--	166	--	169	303	357	207
Total dissolved solids (TDS)	mg/L	888	--	906	824	924	936	--	952	--	962	1130	--	1030
Appendix IV														
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-245	MW-245	MW-245	MW-245	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
Sample ID:		MW245-GW-0625	MW245-GW-1025	MW245-GW-1225	DP01-GW-1225	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
Sample Date:		6/11/2025	10/2/2025	12/9/2025	12/9/2025 (Duplicate)	7/29/2019	8/5/2019	8/19/2019	8/28/2019	9/9/2019	9/24/2019	10/8/2019	10/14/2019	10/28/2019	4/20/2020	6/29/2020	10/12/2020	12/1/2020
Parameters	**Units**																	
Appendix III																		
Boron	mg/L	--	0.359	--	--	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.165	--	0.156	--
Calcium	mg/L	--	232	212	197	155	138	138	146	138	126	136	132	137	183	196	220	181
Chloride	mg/L	--	8.59	--	--	16.6	18.1	17.9	17.9	17.1	16.1	17.2	18.3	17.3	14.8	--	14.7	--
Fluoride	mg/L	--	<1.00	--	--	<0.500	0.565	<0.500	0.51	0.509	<0.500	<0.500	<0.500	<0.500	<0.500	--	<0.500	--
pH, lab	s.u.	6.9 J	7.6 J	7.0 J	7.0 J	7.1	7	7.1	7.5	7.7	7.2	7.2	7	7	6.9	--	6.9	--
Sulfate	mg/L	--	376	383	366	54	54.9	55.4	56.9	57.7	54.5	56.2	58.1	54.4	99.5	64	81.1	91.4
Total dissolved solids (TDS)	mg/L	--	1280	--	--	622	606	668	640	662	634	654	620	632	838	760	832	842
Appendix IV																		
Antimony	mg/L	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	0.17	0.169	0.185	0.211	0.189	0.227	0.234	0.233	--	--	--	--	--
Barium	mg/L	--	--	--	--	0.5	0.418	0.45	0.431	0.434	0.409	0.392	0.386	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	--	--	--	--	--
Chromium	mg/L	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	0.0078	0.00644	0.00522	0.00494	0.00487	0.004	0.00399	0.00349	--	--	--	--	--
Lead	mg/L	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--
Lithium	mg/L	--	--	--	--	0.0421	0.036	0.0331	0.0347	0.033	0.0326	0.0323	0.0314	--	--	--	--	--
Mercury	mg/L	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	0.00621	0.00541	0.00536	0.00589	0.0055	0.00586	0.00535	0.00689	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	0.802	0.657	0.889	0.545	1.35	0.791	1.56	0.833	--	--	--	--	--
Selenium	mg/L	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
Thallium	mg/L	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
Sample ID:		MW-246	MW-246	MW246-GW-1022	MW246-GW-0423	MW246-GW-1023	MW246-GW-0424	MW246-GW-1024	MW246-GW-0425	MW246-GW-1025	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
Sample Date:		4/19/2021	10/25/2021	10/11/2022	4/27/2023	10/5/2023	4/3/2024	10/3/2024	4/2/2025	10/2/2025	7/29/2019	8/5/2019	8/19/2019	8/28/2019	9/9/2019	9/24/2019
Parameters	**Units**															
Appendix III																
Boron	mg/L	0.187	0.137	0.210	0.169	0.158	0.191	<0.500	0.149	0.144	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Calcium	mg/L	128	199	167	164	184	154	200	167	171	163	163	138	139	146	138
Chloride	mg/L	14.4	14.1	13.6	14.5	13.5	16.8	12.4	13.2	11.7	13.7	14.8	14.5	14.2	13.1	12.9
Fluoride	mg/L	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	0.602	0.555	0.524	<0.500	<0.500
pH, lab	s.u.	7.1	7.1	7.1 J	7.1 J	7.8 J	7.0 J	7.0 J	7.7 J	7.6 J	7.2	7.2	7.4	7.5	7.5	7.3
Sulfate	mg/L	46.5	88.4	70.3	66.6 J-	62.7	62.6	57.4	45.8	71.0	108	115	117	117	111	109
Total dissolved solids (TDS)	mg/L	626	730	684	622	758	666	808	778	820	662	656	684	600	714	658
Appendix IV																
Antimony	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	0.0134	0.013	0.0138	0.0152	0.0153	0.017
Barium	mg/L	--	--	--	--	--	--	--	--	--	0.335	0.293	0.266	0.25	0.278	0.287
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001
Chromium	mg/L	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	0.00582	0.00533	0.00451	0.00469	0.00523	0.00496
Lead	mg/L	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	--	--	0.0647	0.0588	0.0506	0.0515	0.0519	0.0539
Mercury	mg/L	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	0.00395	0.00336	0.00275	0.00299	0.00315	0.00341
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	0.708	0.464	0.798	0.515	1.09	0.734
Selenium	mg/L	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Thallium	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
Sample ID:		MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW247-GW-1022	MW247-GW-0423	MW247-GW-1023	MW247-GW-1123
Sample Date:		10/8/2019	10/14/2019	10/28/2019	12/12/2019	4/20/2020	6/29/2020	10/12/2020	12/1/2020	4/19/2021	10/25/2021	4/26/2022	6/13/2022	10/11/2022	4/27/2023	10/5/2023	11/29/2023
Parameters	**Units**																
Appendix III																	
Boron	mg/L	<0.200	<0.200	<0.200	--	0.201	0.218	0.207	0.19	0.192	0.175	0.206	0.175	0.209	0.170	0.196	--
Calcium	mg/L	148	142	153	--	160	--	152	--	121	143	165	--	191	165	156	--
Chloride	mg/L	13.8	14.2	13.8	--	13.4	--	12.9	--	12.4	14.5	13.9	--	13.9	14.4	14.4	--
Fluoride	mg/L	<0.500	<0.500	0.703	<0.500	<0.500	--	<0.500	--	<0.500	<0.500	<0.500	--	<0.500	<1.00	<1.00	--
pH, lab	s.u.	7.1	7	7.1	--	7	--	7	--	7.1	7.1	7.1 J	--	7.1 J	7.1 J	7.9 J	7.1 J
Sulfate	mg/L	115	121	107	--	125	--	95.7	--	85.9	106	58.9	--	93.0	98.8 J-	111	--
Total dissolved solids (TDS)	mg/L	702	660	648	--	748	--	644	--	582	568	622	--	690	626	682	--
Appendix IV																	
Antimony	mg/L	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	0.0169	0.0163	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.255	0.253	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0001	<0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	0.00465	0.00452	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0533	0.0515	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	0.00287	0.00309	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.923	0.735	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-248	MW-248	MW-248	MW-248	MW-248
Sample ID:		MW247-GW-0424	MW247-GW-0624	MW247-GW-1024	MW247-GW-1224	DP01-GW-1224	MW247-GW-0425	MW247-GW-0625	MW247-GW-1025	MW247-GW-1225	MW-248	MW-248	MW-248	MW-248	MW-248
Sample Date:		4/3/2024	6/4/2024	10/3/2024	12/10/2024	12/10/2024 (Duplicate)	4/2/2025	6/11/2025	10/2/2025	12/9/2025	7/29/2019	8/5/2019	8/19/2019	8/28/2019	9/9/2019
Parameters	**Units**														
Appendix III															
Boron	mg/L	0.197	--	<0.500	--	--	0.182	--	0.190	--	<0.200	<0.200	<0.200	<0.200	<0.200
Calcium	mg/L	161	--	205	204	202	145	--	157	--	122	113	108	106	112
Chloride	mg/L	14.9	13.6	61.9	28.4	28.2	13.8	--	13.5	--	9.99	9.86	9.84	9.61	8.37
Fluoride	mg/L	<1.00	--	<1.00	--	--	<1.00	--	<1.00	--	0.596	0.69	0.634	0.632	0.572
pH, lab	s.u.	7.1 J	--	6.9 J	--	--	7.7 J	7.0 J	7.6 J	7.0 J	7.3	7.2	7.4	7.7	7.6
Sulfate	mg/L	115	--	171	150	140	120	--	130	--	58.8	60.5	62.3	63.7	60.4
Total dissolved solids (TDS)	mg/L	686	--	882	866	846	708	--	762	--	496	488	538	660	528
Appendix IV															
Antimony	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	0.0158	0.0172	0.0212	0.0224	0.0238
Barium	mg/L	--	--	--	--	--	--	--	--	--	0.286	0.238	0.233	0.225	0.251
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0001	<0.0001
Chromium	mg/L	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	0.00658	0.00571	0.00525	0.00523	0.00563
Lead	mg/L	--	--	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	--	--	0.0585	0.0491	0.0449	0.0438	0.0468
Mercury	mg/L	--	--	--	--	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	0.00477	0.00382	0.00412	0.0042	0.00463
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	1.55	0.854	0.646	1.07	1.03
Selenium	mg/L	--	--	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005
Thallium	mg/L	--	--	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248
Sample ID:		MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW248-GW-1022	MW248-GW-0423	MW248-GW-1023	MW248-GW-1123
Sample Date:		9/24/2019	10/8/2019	10/14/2019	10/28/2019	4/20/2020	6/29/2020	10/12/2020	12/1/2020	4/19/2021	6/29/2021	10/25/2021	4/26/2022	6/13/2022	10/11/2022	4/27/2023	10/5/2023	11/29/2023
Parameters	**Units**																	
Appendix III																		
Boron	mg/L	<0.200	<0.200	<0.200	<0.200	0.166	--	0.175	--	0.184	--	0.157	0.189	--	0.189	0.160	0.160	--
Calcium	mg/L	99.3	106	113	112	109	--	136	117	132	136	132	153	160	165	146	121	--
Chloride	mg/L	8.18	8.63	9.03	9.01	9.96	--	11.3	--	15	13.6	14.3	14.1	13.8	10.2	10.9	11.7	--
Fluoride	mg/L	<0.500	<0.500	<0.500	0.505	0.505	--	<0.500	--	<0.500	--	<0.500	<0.500	--	<0.500	<1.00	<1.00	--
pH, lab	s.u.	7.2	7.2	7.1	7.2	7.1	--	7.2	--	7.1	--	7.1	7.1 J	--	7.2 J	7.2 J	7.9 J	7.1 J
Sulfate	mg/L	59.6	59.5	61	54.4	69	73.2	96.2	95.9	132	122	120	110	59.9	67.4	92.6 J-	64.9	--
Total dissolved solids (TDS)	mg/L	494	532	424	476	524	--	554	--	662	--	588	578	--	556	552	518	--
Appendix IV																		
Antimony	mg/L	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	0.0263	0.0241	0.0254	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.219	0.213	0.231	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0001	<0.0001	<0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	0.00326	0.00343	0.00353	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	0.0463	0.047	0.0468	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	<0.0006	<0.0002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	0.00499	0.00462	0.00527	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	1.11	0.908	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
Sample ID:		MW248-GW-0424	MW248-GW-1024	MW248-GW-0425	MW248-GW-0625	DP01-GW-0625	MW248-GW-1025	MW248-GW-1225	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
Sample Date:		4/3/2024	10/3/2024	4/2/2025	6/11/2025	6/11/2025 (Duplicate)	10/2/2025	12/9/2025	7/30/2021	8/2/2021	8/16/2021	8/30/2021	9/13/2021	9/20/2021	10/6/2021	10/14/2021
Parameters	**Units**															
Appendix III																
Boron	mg/L	0.182	<0.500	0.176	--	--	0.224	0.205	0.266	0.256	0.256	0.244	0.268	0.264	0.272	0.286
Calcium	mg/L	126	125	153	137	130	142	--	174	158	165	162	164	184	160	153
Chloride	mg/L	11.7	12.3	17.1	12.6	12.5	12.6	--	6.68	6.43	5.99	5.84	6.59	6.52	6.98	6.58
Fluoride	mg/L	<1.00	<1.00	<1.00	--	--	<1.00	--	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.1 J	7.0 J	7.7 J	--	--	7.6 J	--	7	7.1	6.9	6.9	7.2	6.9	7	6.9
Sulfate	mg/L	93.9	86.9	157	108	107	134	118	93.7	91.8	87.2	88.3	87.5	96.3	87.2	86
Total dissolved solids (TDS)	mg/L	578	548	740	602	596	664	--	618	626	628	664	572	638	640	604
Appendix IV																
Antimony	mg/L	--	--	--	--	--	--	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic	mg/L	--	--	--	--	--	--	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	--	--	--	--	--	--	--	0.106	0.104	0.11	0.105	0.102	0.108	0.0963	0.0987
Beryllium	mg/L	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	--	--	--	--	--	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	--	--	--	--	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt	mg/L	--	--	--	--	--	--	--	0.00226	0.00214	0.00239	0.00234	0.00261	0.00191	0.00191	0.00214
Lead	mg/L	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Lithium	mg/L	--	--	--	--	--	--	--	0.072	0.0702	0.0746	0.0713	0.0729	0.0696	0.08	0.0766
Mercury	mg/L	--	--	--	--	--	--	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	--	--	--	--	--	--	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	0.463	0.76	0.859	0.63	1.05	0.818	0.784	0.97
Selenium	mg/L	--	--	--	--	--	--	--	0.0103	0.00862	<0.005	<0.005	<0.005	0.012	<0.005	<0.005
Thallium	mg/L	--	--	--	--	--	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
Sample ID:		MW-250	MW-250	MW-250	MW250-GW-1022	MW250-GW-0123	DP01-GW-0123	MW250-GW-0423	MW250-GW-0623	MW250-GW-1023	MW250-GW-1123	MW250-GW-0424	MW250-GW-1024	MW250-GW-0425
Sample Date:		10/25/2021	4/27/2022	6/13/2022	10/12/2022	1/17/2023	1/17/2023 (Duplicate)	4/26/2023	6/27/2023	10/5/2023	11/29/2023	4/3/2024	10/2/2024	4/2/2025
Parameters	**Units**													
Appendix III														
Boron	mg/L	0.238	0.304	0.255	0.245	--	--	0.234	--	0.215	--	0.246	<0.500	0.240
Calcium	mg/L	161	166	--	210	199	185	241	--	211	--	220	209	199
Chloride	mg/L	6.76	7.47	--	5.41	--	--	7.86	8.26	9.32	--	9.59	12.1	12.2
Fluoride	mg/L	<0.500	<0.500	--	<0.500	--	--	<1.00	--	<1.00	--	<1.00	<1.00	<1.00
pH, lab	s.u.	6.9	7.0 J	--	7.0 J	--	--	6.9 J	--	7.8 J	7.0 J	6.9 J	6.8 J	7.5 J
Sulfate	mg/L	99.3	73.4	--	151	177	179	306 J-	--	211	--	178	253	207
Total dissolved solids (TDS)	mg/L	578	628	--	784	818	846	1040	--	928	--	880	968	926
Appendix IV														
Antimony	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-250	MW-250	MW-250	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307D
Sample ID:		MW250-GW-0625	MW250-GW-1025	MW250-GW-1225	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW-307	MW307-GW-1024	MW307-GW-0425	MW307-GW-1025	MW307D-GW-0424
Sample Date:		6/11/2025	10/1/2025	12/9/2025	7/27/2020	10/12/2020	11/16/2020	4/22/2021	5/6/2021	11/3/2021	11/18/2021	10/3/2024	3/31/2025	9/30/2025	4/2/2024
Parameters	**Units**														
Appendix III															
Boron	mg/L	--	0.226	--	<0.100	0.148	<0.100	0.123	0.102	0.154	0.157	0.169	0.201	0.202	0.193
Calcium	mg/L	--	220	--	95.1	93.4	82.4	103	108	87.4	99.8	130	123	124	121
Chloride	mg/L	--	11.9	--	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Fluoride	mg/L	--	<1.00	--	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	6.9 J	7.5 J	6.9 J	7.3 J	7.0 J	7.2 J	7.2 J	7.3 J	7.0 J	7.3 J	7.1 J	7.2 J	7.0 J	7.3 J
Sulfate	mg/L	--	224	--	10.9	12.3	13.7	20.4	19.7	14.4	14.9	97.0	61.3	84.3	27.1
Total dissolved solids (TDS)	mg/L	--	1000	--	370	358	402	426	402	340	370	532	496	512	390
Appendix IV															
Antimony	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	--	0.00215	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0173
Barium	mg/L	--	--	--	0.250	0.238	0.199	0.257	0.242	0.197	0.230	0.282	0.204	0.202	0.473
Beryllium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	0.000134	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	--	0.000526	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.00288
Lead	mg/L	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	0.0298	0.0426	0.0413	0.0443	0.0508	0.0506	0.0577	0.0779	0.0802	0.0861	0.0741
Mercury	mg/L	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	--	--	--	0.00256	0.00207	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00687	0.00520
Radium-226 & 228	pCi/L	--	--	--	0.368	0.492	0.364	0.415	0.580	0.345	1.51	0.554	0.969	0.505	1.40
Selenium	mg/L	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-307D	MW-307D	MW-307D	MW-307D	MW-307D	MW-307D	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34
Sample ID:		MW307D-GW-0624	MW307D-GW-1024	MW307D-GW-0125	MW307D-GW-0425	MW307D-GW-0725	MW307D-GW-1025	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34
Sample Date:		6/4/2024	10/1/2024	1/23/2025	3/31/2025	7/24/2025	9/30/2025	7/27/2020	10/12/2020	11/16/2020	4/22/2021	5/5/2021	11/3/2021	11/16/2021	4/29/2022
Parameters	**Units**														
Appendix III															
Boron	mg/L	0.191	0.214	0.246	0.193	0.193	0.204	<0.100	0.192	<0.100	0.132	0.104	0.105	0.125	<0.100
Calcium	mg/L	113	127	116	119	119 J	121	99.9	120	112	98.7	106	89.6	126	173
Chloride	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	5.14	5.59	5.37	6.12	<5.00	5.49	5.73	7.46	9.32
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.3 J	6.9 J	7.0 J	7.3 J	7.2 J	7.2 J	7.0 J	7.3 J	7.7 J	7.1 J	7.0 J	7.1 J	7.1 J	7.3 J
Sulfate	mg/L	25.9	59.2	49.1	32.6	36.6	43.3	43.6	73.6	81.0	72.0	72.0	51.2	75.1	104
Total dissolved solids (TDS)	mg/L	476	476	534	462	514	512	542	578	646	522	536	438	552	646
Appendix IV															
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	0.0192	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0727	0.0817	0.0773	0.0769	0.0773	0.0745	0.0275	0.0871
Barium	mg/L	0.477	0.192	0.195	0.192	0.226	0.244	0.584	0.714	0.653	0.650	0.636	0.527	0.347	0.317
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	0.00156	<0.000500	0.000855	<0.000500	<0.000500	<0.000500	0.000703	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000946	0.00144
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000522	0.000542	<0.000500
Lithium	mg/L	0.0677	0.0808	0.0811	0.0675	0.0675	0.0764	0.0343	0.0394	0.0377	0.0334	0.0381	0.0321	0.0402	0.0335
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	0.00473	<0.00200	<0.00200	0.00231	0.00295	0.00330	0.00476	0.00461	0.00428	0.00368	0.00440	0.00386	0.00528	0.00587
Radium-226 & 228	pCi/L	<0.823	0.426	0.702	0.506	0.662 U	0.641	1.39	0.712	1.42	0.901	1.42	0.580	1.16	1.30
Selenium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0113	0.0364
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00899	<0.00100	<0.00100	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	MW-34	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1
Sample ID:		MW34-GW-1122	MW34-GW-0423	MW34-GW-1023	MW34-GW-0424	MW34-GW-1024	MW34-GW-0425	MW34-GW-1025	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1
Sample Date:		11/9/2022	4/24/2023	10/4/2023	4/1/2024	10/1/2024	4/1/2025	9/29/2025	7/27/2020	10/12/2020	11/16/2020	4/22/2021	5/5/2021	11/3/2021	11/18/2021	4/28/2022
Parameters	**Units**															
Appendix III																
Boron	mg/L	0.118	0.113	0.101	<0.100	0.105	0.111	0.134	0.273	0.426 F1	0.467	0.292	0.272	0.232	0.344	0.194
Calcium	mg/L	95.2	95.7	91.6	86.3	107	101	85.1	202	164	156	211	186	224	186	232
Chloride	mg/L	5.14	<5.00	5.60	6.23	7.31	8.13	6.23	<5.00	11.8	10.6	12.4	14.1	56.9	15.8	19.0
Fluoride	mg/L	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.2 J	7.2 J	7.5 J	7.1 J	7.1 J	7.3 J	7.1 J	6.8 J	7.2 J	7.0 J	7.0 J	6.9 J	7.1 J	7.0 J	7.3 J
Sulfate	mg/L	20.8	12.0	24.7	29.7	38.3	44.8	29.6	6.82	85.9	81.0	151	189	578	184	264
Total dissolved solids (TDS)	mg/L	390	460	446	422	452	494	428	960	766	794	842	966	1520	830	1010
Appendix IV																
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	0.0918	0.0805	0.143	0.105	0.0879	0.0395	0.0922	0.00580	0.0449	0.0475	0.0605	0.0538	0.0101	0.0439	0.0459
Barium	mg/L	0.683	0.361	0.955	0.496	0.633	0.252	0.449	0.292	0.433	0.434	0.550	0.460	0.111	0.393	0.335
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000100	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000100	<0.000100	<0.000100	0.000118	<0.000100	<0.000100	<0.000100	<0.000100
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	0.00160	0.000643	0.000586	<0.000500	<0.000500	0.00106	0.000643	0.00405	0.00848	0.00632	0.00350	0.00260	0.00173	0.00251	0.00236
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000601	<0.000500	<0.000500
Lithium	mg/L	0.0342	0.0367	0.0352	0.0356	0.0364	0.0331	0.0341	0.0474	0.0377	0.0424	0.0544	0.0502	0.132	0.0507	0.0490
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	0.00296	0.00455	0.00268	0.00434	0.00418	0.00421	0.00420	0.00483	0.00242	0.00251	0.00349	0.00281	0.00990	0.00332	0.00318
Radium-226 & 228	pCi/L	2.59	<0.566	5.02	1.44	1.38	0.448	1.02	2.96	4.23	3.43	3.44	2.50	3.12	3.55	3.21
Selenium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	0.00729	0.0236	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.162	<0.00500	<0.00500
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.00206	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-1	TW-2	TW-2	TW-2	TW-2	TW-2	TW-2	TW-2	TW-2
Sample ID:		**TW1-GW-1122**	**TW1-GW-0423**	**TW1-GW-1023**	**TW1-GW-0424**	**TW1-GW-1024**	**TW1-GW-0425**	**TW1-GW-1025**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**
Sample Date:		**11/9/2022**	**4/25/2023**	**10/3/2023**	**4/1/2024**	**10/3/2024**	**4/1/2025**	**9/29/2025**	**7/27/2020**	**10/12/2020**	**11/16/2020**	**4/22/2021**	**5/5/2021**	**11/3/2021**	**11/18/2021**	**4/28/2022**
Parameters	**Units**															
Appendix III																
Boron	mg/L	0.285	0.175	0.328	0.380	0.201	0.187	0.373	0.391	0.439	0.416	0.205	0.240	0.271	0.244	0.246
Calcium	mg/L	182	239	182	169	241	213	178	89.7	103	103	199	183	196	227	228
Chloride	mg/L	15.1	21.6	17.7	13.2	25.1	22.2	17.8	14.7	5.93	7.26	39.0	32.6	18.0	47.8	32.3
Fluoride	mg/L	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
pH, lab	s.u.	7.1 J	7.1 J	7.0 J	7.0 J	7.1 J	7.1 J	7.0 J	7.2 J	7.1 J	7.2 J	7.2 J	7.2 J	6.9 J	7.1 J	7.4 J
Sulfate	mg/L	137	325	188	88.4	386	337	204	150	17.3	29.2	367	332	238	432	269
Total dissolved solids (TDS)	mg/L	826	1100	928	736	1190	1120	832	474	504	590	1180	1160	964	1320	1070
Appendix IV																
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	0.0530	0.0159	0.0463	0.0570	0.0235	0.0217	0.0428	0.166	0.195	0.136	0.0185	0.00994	0.0507	0.0362	0.0529
Barium	mg/L	0.387	0.371	0.537	0.497	0.297	0.316	0.466	0.354	0.395	0.335	0.156	0.153	0.427	0.137	0.234
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000100	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	0.00156	0.00115	0.000936	0.000732	0.000913	0.000813	0.000554	0.000972	0.00101	0.00138	0.00158	0.00176	0.00248	0.00171	0.00146
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000928	<0.000500	<0.000500	<0.000500	<0.000500	0.000505	<0.000500	<0.000500	<0.000500
Lithium	mg/L	0.0438	0.0539	0.0473	0.0419	0.0581	0.0522	0.0438	0.0284	0.0305	0.0394	0.109	0.0970	0.0515	0.124	0.0842
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	<0.00200	0.00407	<0.00200	<0.00200	0.00761	0.00478	0.00337	0.00981	0.00706	0.00558	0.00767	0.00630	0.00436	0.00840	0.00358
Radium-226 & 228	pCi/L	4.59	1.96	3.16	2.09	2.25	1.75	3.50	1.03	0.943	0.482	1.41	1.44	2.93	4.68	1.68
Selenium	mg/L	<0.00500	0.127	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0658	0.0342	<0.00500	0.0183	<0.00500
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	0.00157	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.1

Cumulative Groundwater Analytical Data Summary
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**	**TW-2**
Sample ID:		**TW2-GW-1122**	**TW2-GW-0423**	**TW2-GW-1023**	**TW2-GW-0424**	**TW2-GW-1024**	**TW2-GW-0425**	**TW2-GW-1025**
Sample Date:		**11/9/2022**	**4/24/2023**	**10/3/2023**	**4/1/2024**	**10/3/2024**	**3/31/2025**	**9/29/2025**
Parameters	**Units**							
Appendix III								
Boron	mg/L	0.388	0.430	0.443	0.423	0.330	0.163	0.432
Calcium	mg/L	129	125	144	169	156	205	148
Chloride	mg/L	10.4	6.32	13.5	18.2	19.3	41.2	15.8
Fluoride	mg/L	<0.500	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.1 J	7.3 J	7.1 J	7.4 J	7.2 J	7.2 J	7.2 J
Sulfate	mg/L	63.7	7.15	<5.00	46.0	20.9	341	11.1
Total dissolved solids (TDS)	mg/L	654	566	704	794	768	1160	730
Appendix IV								
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	0.122	0.170	0.122	0.0873	0.0778	0.0215	0.0913
Barium	mg/L	0.164	0.196	0.291	0.370	0.218	0.139	0.175
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000100	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	0.000717	0.000640	0.000606	0.000673	<0.000500	<0.000500	<0.000500
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	0.0510	0.0395	0.0562	0.0572	0.0702	0.0875	0.0598
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	0.00280	0.00534	<0.00200	<0.00200	0.00217	<0.00200	0.00287
Radium-226 & 228	pCi/L	1.04	1.14	1.78	1.20	3.00	1.64	2.26
Selenium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:				MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample ID:				MW105-GW-0425	DP03-GW-0425	MW105-GW-0625	MW105-GW-1025	DP03-GW-1025	MW105-GW-1225
Sample Date:		MCL [a]	GWPS [b]	4/2/2025	4/2/2025	6/11/2025	10/2/2025	10/2/2025	12/9/2025
		40 CFR 257.95(h)(1)	40 CFR 257.95(h)(2)		(Duplicate)			(Duplicate)	
Parameters	**Units**								
Appendix III									
Boron	mg/L	NA	NA	0.191	0.188	--	0.213	0.212	--
Calcium	mg/L	NA	NA	162	162	--	187	176	159
Chloride	mg/L	NA	NA	22.4	20.5	--	33.7	36.0	--
Fluoride	mg/L	4.0	NA	<1.00	<1.00	--	<1.00	<1.00	--
pH, lab	s.u.	NA	NA	7.7 J	7.7 J	7.1 J	7.5 J	7.6 J	7.0 J
Sulfate	mg/L	NA	NA	154	151	--	181	183	--
Total dissolved solids (TDS)	mg/L	NA	NA	762	758	--	898	888	--
Appendix IV									
Antimony	mg/L	0.006	NA	--	--	--	--	--	--
Arsenic	mg/L	0.01	NA	--	--	--	--	--	--
Barium	mg/L	2.0	NA	--	--	--	--	--	--
Beryllium	mg/L	0.004	NA	--	--	--	--	--	--
Cadmium	mg/L	0.005	NA	--	--	--	--	--	--
Chromium	mg/L	0.1	NA	--	--	--	--	--	--
Cobalt	mg/L	NA	0.006	--	--	--	--	--	--
Lead	mg/L	NA	0.015	--	--	--	--	--	--
Lithium	mg/L	NA	0.040	--	--	--	--	--	--
Mercury	mg/L	0.002	NA	--	--	--	--	--	--
Molybdenum	mg/L	NA	0.100	--	--	--	--	--	--
Radium-226 & 228	pCi/L	5	NA	--	--	--	--	--	--
Selenium	mg/L	0.05	NA	--	--	--	--	--	--
Thallium	mg/L	0.002	NA	--	--	--	--	--	--

Footnotes:

< - Not detected at the associated reporting limit.

J- - Estimated concentration, result may be biased low

J - Estimated concentration.

J+ - Estimated concentration, result may be biased high.

GWPS - Groundwater Protection Standard.

MCL - Maximum Contaminant Level.

NA - Not applicable.

[a] Maximum contaminant level (MCL).

[b] Groundwater protection standard (GWPS) established under 40 CFR 257.95(h)(2).

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-108**	**MW-108**	**MW-108**	**MW-108**	**MW-133**	**MW-133**	**MW-133**	**MW-133**
Sample ID:		**MW108-GW-0425**	**MW108-GW-0625**	**MW108-GW-1025**	**MW108-GW-1225**	**MW133-GW-0425**	**MW133-GW-0625**	**MW133-GW-1025**	**MW133-GW-1225**
Sample Date:		**4/2/2025**	**6/11/2025**	**10/1/2025**	**12/9/2025**	**4/2/2025**	**6/11/2025**	**10/1/2025**	**12/9/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.221	--	0.190	--	0.376	--	0.394	--
Calcium	mg/L	127	--	139	--	190	--	184	--
Chloride	mg/L	27.4	--	20.8	--	101	--	81.2	--
Fluoride	mg/L	1.12	<1.00	<1.00	--	<1.00	--	<1.00	--
pH, lab	s.u.	7.5 J	6.9 J	7.5 J	7.0 J	7.7 J	7.0 J	7.6 J	7.1 J
Sulfate	mg/L	<5.00	--	<5.00	--	272	--	185	--
Total dissolved solids (TDS)	mg/L	682	--	688	--	1020	--	908	--
Appendix IV									
Antimony	mg/L	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-156**	**MW-156**	**MW-156D**	**MW-156D**	**MW-156D**	**MW-156D**	**MW-157**	**MW-157**
Sample ID:		**MW156-GW-1025**	**MW156-GW-1225**	**MW156D-GW-0125**	**MW156D-GW-0425**	**MW156D-GW-0725**	**MW156D-GW-1025**	**MW157-GW-0425**	**MW157-GW-1025**
Sample Date:		**10/2/2025**	**12/9/2025**	**1/23/2025**	**4/3/2025**	**7/24/2025**	**10/2/2025**	**4/2/2025**	**10/2/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.237	--	0.202	0.217	0.148	0.244	0.344	0.296
Calcium	mg/L	242	--	236	325	227 J	221	222	207
Chloride	mg/L	75.7	45.8	52.3	30.5	14.9	18.0	56.1	55.2
Fluoride	mg/L	<1.00	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.5 J	--	7.0 J	7.6 J	7.2 J	7.6 J	7.5 J	7.4 J
Sulfate	mg/L	301	--	299	494	345	357	197	186
Total dissolved solids (TDS)	mg/L	1130	--	1060	1330	1060	1030	984	896
Appendix IV									
Antimony	mg/L	--	--	<0.00200	<0.00200	<0.00200	<0.00200	--	--
Arsenic	mg/L	--	--	0.00361	0.0101	0.0108	0.0122	--	--
Barium	mg/L	--	--	0.0711	0.0894	0.0634	0.0685	--	--
Beryllium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--
Cadmium	mg/L	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--
Chromium	mg/L	--	--	<0.00500	<0.00500	<0.00500	<0.00500	--	--
Cobalt	mg/L	--	--	0.00302	0.00293	0.00260	0.00197	--	--
Lead	mg/L	--	--	<0.000500	<0.000500	<0.000500	<0.000500	--	--
Lithium	mg/L	--	--	0.0879	0.0992	0.0779	0.0855	--	--
Mercury	mg/L	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--
Molybdenum	mg/L	--	--	<0.00200	<0.00200	<0.00200	<0.00200	--	--
Radium-226 & 228	pCi/L	--	--	1.53	0.602	0.884	1.10	--	--
Selenium	mg/L	--	--	0.00981	<0.00500	<0.00500	0.00749	--	--
Thallium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-158**	**MW-158**	**MW-159**	**MW-159**	**MW-159**	**MW-190**	**MW-190**	**MW-191**
Sample ID:		**MW158-GW-0425**	**MW158-GW-1025**	**MW159-GW-0425**	**MW159-GW-0625**	**MW159-GW-1025**	**MW190-GW-0425**	**MW190-GW-1025**	**MW191-GW-0425**
Sample Date:		**4/2/2025**	**10/2/2025**	**4/2/2025**	**6/11/2025**	**10/2/2025**	**4/2/2025**	**10/2/2025**	**4/2/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.475	0.651	0.308	--	0.308	0.139	0.142	0.149
Calcium	mg/L	363	306	198	--	188	169	158	165
Chloride	mg/L	33.9	28.3	15.6	--	13.5	11.4	11.9	10.5
Fluoride	mg/L	<1.00	<1.00	<1.00	--	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.5 J	7.4 J	7.6 J	6.9 J	7.5 J	7.7 J	7.5 J	7.7 J
Sulfate	mg/L	524	403	213	--	202	212	246	187
Total dissolved solids (TDS)	mg/L	1560	1310	866	--	850	810	834	784
Appendix IV									
Antimony	mg/L	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-191	MW-227	MW-227D	MW-227D	MW-227D	MW-227D	MW-240R	MW-240R
Sample ID:		MW191-GW-1025	MW227-GW-1025	MW227D-GW-0125	MW227D-GW-0425	MW227D-GW-0725	MW227D-GW-1025	MW240R-GW-0425	DP04-GW-0425
Sample Date:		10/2/2025	10/1/2025	1/23/2025	4/2/2025	7/24/2025	10/1/2025	4/2/2025	4/3/2025 (Duplicate)
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.150	0.140	0.152	0.142	0.116	0.223	0.305	0.303
Calcium	mg/L	153	164	152	166	127 J	181	156	157
Chloride	mg/L	10.2	8.72	14.5	7.76	7.12	27.9	24.9	25.1
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.6 J	7.5 J	7.0 J	7.7 J	7.1 J	7.7 J	7.8 J	7.5 J
Sulfate	mg/L	186	272	175	251	155	223	212	209
Total dissolved solids (TDS)	mg/L	766	852	740	810	638	910	842	806
Appendix IV									
Antimony	mg/L	--	--	<0.00200	<0.00200	<0.00200	<0.00200	--	--
Arsenic	mg/L	--	--	0.0107	0.0137	0.0200	<0.00200	--	--
Barium	mg/L	--	--	0.279	0.367	0.323	0.107	--	--
Beryllium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--
Cadmium	mg/L	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--
Chromium	mg/L	--	--	<0.00500	<0.00500	<0.00500	<0.00500	--	--
Cobalt	mg/L	--	--	0.00124	<0.000500	<0.000500	<0.000500	--	--
Lead	mg/L	--	--	<0.000500	<0.000500	<0.000500	<0.000500	--	--
Lithium	mg/L	--	--	0.0665	0.0658	0.0543	0.0870	--	--
Mercury	mg/L	--	--	<0.000200	<0.000200	<0.000200	<0.000200	--	--
Molybdenum	mg/L	--	--	<0.00200	0.00211	0.00253	<0.00200	--	--
Radium-226 & 228	pCi/L	--	--	1.06	1.09	0.899	3.19	--	--
Selenium	mg/L	--	--	0.0105	<0.00500	<0.00500	0.0417	--	--
Thallium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-240R**	**MW-240R**	**MW-240R**	**MW-240R**	**MW-244**	**MW-244**	**MW-244**	**MW-245**
Sample ID:		**MW240R-GW-0625**	**MW240R-GW-1025**	**DP04-GW-1025**	**MW240R-GW-1225**	**MW244-GW-0425**	**MW244-GW-1025**	**MW244-GW-1225**	**MW245-GW-0425**
Sample Date:		**6/11/2025**	**10/1/2025**	**10/1/2025 (Duplicate)**	**12/9/2025**	**4/2/2025**	**10/1/2025**	**12/9/2025**	**4/2/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	--	0.306	0.305	--	0.140	<0.100	--	0.349
Calcium	mg/L	--	143	139	--	136	158	--	195
Chloride	mg/L	--	12.1	12.1	--	11.1	11.7	--	8.37
Fluoride	mg/L	--	<1.00	<1.00	--	<1.00	<1.00	--	<1.00
pH, lab	s.u.	7.1 J	7.7 J	7.7 J	7.2 J	7.7 J	7.7 J	--	7.6 J
Sulfate	mg/L	--	206	206	--	66.3	130	91.3	207
Total dissolved solids (TDS)	mg/L	--	748	766	--	676	812	--	1030
Appendix IV									
Antimony	mg/L	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		MW-245	MW-245	MW-245	MW-245	MW-246	MW-246	MW-247	MW-247
Sample ID:		MW245-GW-0625	MW245-GW-1025	MW245-GW-1225	DP01-GW-1225	MW246-GW-0425	MW246-GW-1025	MW247-GW-0425	MW247-GW-0625
Sample Date:		6/11/2025	10/2/2025	12/9/2025	12/9/2025 (Duplicate)	4/2/2025	10/2/2025	4/2/2025	6/11/2025
Parameters	**Units**								
Appendix III									
Boron	mg/L	--	0.359	--	--	0.149	0.144	0.182	--
Calcium	mg/L	--	232	212	197	167	171	145	--
Chloride	mg/L	--	8.59	--	--	13.2	11.7	13.8	--
Fluoride	mg/L	--	<1.00	--	--	<1.00	<1.00	<1.00	--
pH, lab	s.u.	6.9 J	7.6 J	7.0 J	7.0 J	7.7 J	7.6 J	7.7 J	7.0 J
Sulfate	mg/L	--	376	383	366	45.8	71.0	120	--
Total dissolved solids (TDS)	mg/L	--	1280	--	--	778	820	708	--
Appendix IV									
Antimony	mg/L	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-247**	**MW-247**	**MW-248**	**MW-248**	**MW-248**	**MW-248**	**MW-248**	**MW-250**
Sample ID:		**MW247-GW-1025**	**MW247-GW-1225**	**MW248-GW-0425**	**MW248-GW-0625**	**DP01-GW-0625**	**MW248-GW-1025**	**MW248-GW-1225**	**MW250-GW-0425**
Sample Date:		**10/2/2025**	**12/9/2025**	**4/2/2025**	**6/11/2025**	**6/11/2025 (Duplicate)**	**10/2/2025**	**12/9/2025**	**4/2/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	0.190	--	0.176	--	--	0.224	0.205	0.240
Calcium	mg/L	157	--	153	137	130	142	--	199
Chloride	mg/L	13.5	--	17.1	12.6	12.5	12.6	--	12.2
Fluoride	mg/L	<1.00	--	<1.00	--	--	<1.00	--	<1.00
pH, lab	s.u.	7.6 J	7.0 J	7.7 J	--	--	7.6 J	--	7.5 J
Sulfate	mg/L	130	--	157	108	107	134	118	207
Total dissolved solids (TDS)	mg/L	762	--	740	602	596	664	--	926
Appendix IV									
Antimony	mg/L	--	--	--	--	--	--	--	--
Arsenic	mg/L	--	--	--	--	--	--	--	--
Barium	mg/L	--	--	--	--	--	--	--	--
Beryllium	mg/L	--	--	--	--	--	--	--	--
Cadmium	mg/L	--	--	--	--	--	--	--	--
Chromium	mg/L	--	--	--	--	--	--	--	--
Cobalt	mg/L	--	--	--	--	--	--	--	--
Lead	mg/L	--	--	--	--	--	--	--	--
Lithium	mg/L	--	--	--	--	--	--	--	--
Mercury	mg/L	--	--	--	--	--	--	--	--
Molybdenum	mg/L	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--
Selenium	mg/L	--	--	--	--	--	--	--	--
Thallium	mg/L	--	--	--	--	--	--	--	--

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-250**	**MW-250**	**MW-250**	**MW-307**	**MW-307**	**MW-307D**	**MW-307D**	**MW-307D**
Sample ID:		**MW250-GW-0625**	**MW250-GW-1025**	**MW250-GW-1225**	**MW307-GW-0425**	**MW307-GW-1025**	**MW307D-GW-0125**	**MW307D-GW-0425**	**MW307D-GW-0725**
Sample Date:		**6/11/2025**	**10/1/2025**	**12/9/2025**	**3/31/2025**	**9/30/2025**	**1/23/2025**	**3/31/2025**	**7/24/2025**
Parameters	**Units**								
Appendix III									
Boron	mg/L	--	0.226	--	0.201	0.202	0.246	0.193	0.193
Calcium	mg/L	--	220	--	123	124	116	119	119 J
Chloride	mg/L	--	11.9	--	<5.00	<5.00	<5.00	<5.00	<5.00
Fluoride	mg/L	--	<1.00	--	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	6.9 J	7.5 J	6.9 J	7.2 J	7.0 J	7.0 J	7.3 J	7.2 J
Sulfate	mg/L	--	224	--	61.3	84.3	49.1	32.6	36.6
Total dissolved solids (TDS)	mg/L	--	1000	--	496	512	534	462	514
Appendix IV									
Antimony	mg/L	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Barium	mg/L	--	--	--	0.204	0.202	0.195	0.192	0.226
Beryllium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	--	<0.000500	<0.000500	0.000855	<0.000500	<0.000500
Lead	mg/L	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	0.0802	0.0861	0.0811	0.0675	0.0675
Mercury	mg/L	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	--	--	--	<0.00200	0.00687	<0.00200	0.00231	0.00295
Radium-226 & 228	pCi/L	--	--	--	0.969	0.505	0.702	0.506	0.662 U
Selenium	mg/L	--	--	--	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.2

2025 Groundwater Analytical Data
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Sample Location:		**MW-307D**	**MW-34**	**MW-34**	**TW-1**	**TW-1**	**TW-2**	**TW-2**
Sample ID:		**MW307D-GW-1025**	**MW34-GW-0425**	**MW34-GW-1025**	**TW1-GW-0425**	**TW1-GW-1025**	**TW2-GW-0425**	**TW2-GW-1025**
Sample Date:		**9/30/2025**	**4/1/2025**	**9/29/2025**	**4/1/2025**	**9/29/2025**	**3/31/2025**	**9/29/2025**
Parameters	**Units**							
Appendix III								
Boron	mg/L	0.204	0.111	0.134	0.187	0.373	0.163	0.432
Calcium	mg/L	121	101	85.1	213	178	205	148
Chloride	mg/L	5.14	8.13	6.23	22.2	17.8	41.2	15.8
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
pH, lab	s.u.	7.2 J	7.3 J	7.1 J	7.1 J	7.0 J	7.2 J	7.2 J
Sulfate	mg/L	43.3	44.8	29.6	337	204	341	11.1
Total dissolved solids (TDS)	mg/L	512	494	428	1120	832	1160	730
Appendix IV								
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	<0.00200	0.0395	0.0922	0.0217	0.0428	0.0215	0.0913
Barium	mg/L	0.244	0.252	0.449	0.316	0.466	0.139	0.175
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Chromium	mg/L	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	<0.000500	0.00106	0.000643	0.000813	0.000554	<0.000500	<0.000500
Lead	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	0.000928	<0.000500	<0.000500
Lithium	mg/L	0.0764	0.0331	0.0341	0.0522	0.0438	0.0875	0.0598
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Molybdenum	mg/L	0.00330	0.00421	0.00420	0.00478	0.00337	<0.00200	0.00287
Radium-226 & 228	pCi/L	0.641	0.448	1.02	1.75	3.50	1.64	2.26
Selenium	mg/L	<0.00500	0.0236	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Thallium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Upgradient Wells													
TW-1	Boron	mg/L	7/2020 - 4/2022	8	0%	0.194	0.467	0	Normal	No trend	--	Normal-UPL	0.553
TW-1	Calcium	mg/L	7/2020 - 4/2022	8	0%	156	232	0	Normal	No trend	--	Normal-UPL	265
TW-1	Chloride	mg/L	7/2020 - 4/2022	8	13%	<5.00	56.9	2	Gamma	**Increasing**	0.02	Range	<5.00 - 56.9
TW-1	Fluoride	mg/L	7/2020 - 4/2022	8	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
TW-1	pH, lab	s.u.	7/2020 - 4/2022	8	0%	6.8H	7.3H	0	Normal	No trend	--	Normal-UPL	6.63 - 7.45
TW-1	Sulfate	mg/L	7/2020 - 4/2022	8	0%	6.82	578	1	Normal	**Increasing**	0.42	Range	6.82 - 578
TW-1	TDS	mg/L	7/2020 - 4/2022	8	0%	766	1520	1	Lognormal	No trend	--	Lognormal-UPL	1643
TW-2	Boron	mg/L	3/2016 - 7/2017	8	0%	0.205	0.439	0	Normal	No trend	--	Normal-UPL	0.544
TW-2	Calcium	mg/L	3/2016 - 7/2017	8	0%	89.7	228	0	Normal	**Increasing**	0.30	Range	89.7 - 228
TW-2	Chloride	mg/L	3/2016 - 7/2017	8	0%	5.93	47.8	0	Normal	No trend	--	Normal-UPL	64.1
TW-2	Fluoride	mg/L	3/2016 - 7/2017	8	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
TW-2	pH, lab	s.u.	3/2016 - 7/2017	8	0%	6.9H	7.4H	2	Normal	No trend	--	Normal-UPL	6.80 - 7.52
TW-2	Sulfate	mg/L	3/2016 - 7/2017	8	0%	17.3	432	0	Gamma	No trend	--	Gamma-UPL	1142
TW-2	TDS	mg/L	3/2016 - 7/2017	8	0%	474	1320	0	Normal	No trend	--	Normal-UPL	1766
MW-34	Boron	mg/L	7/2020 - 4/2022	8	38%	<0.100	0.192	0	Normal	No trend	--	KM Normal-UPL	0.196
MW-34	Calcium	mg/L	7/2020 - 4/2022	8	0%	89.6	173	1	Normal	No trend	--	Normal-UPL	182
MW-34	Chloride	mg/L	7/2020 - 4/2022	8	13%	<5.00	9.32	1	Normal	No trend	--	KM Normal-UPL	9.70
MW-34	Fluoride	mg/L	7/2020 - 4/2022	8	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
MW-34	pH, lab	s.u.	7/2020 - 4/2022	8	0%	7.0H	7.7H	1	Normal ‡	No trend	--	Normal-UPL	6.60 - 7.80
MW-34	Sulfate	mg/L	7/2020 - 4/2022	8	0%	43.6	104	0	Normal	No trend	--	Normal-UPL	118
MW-34	TDS	mg/L	7/2020 - 4/2022	8	0%	438	646	0	Normal	No trend	--	Normal-UPL	731
MW-307	Boron	mg/L	7/2020 - 11/2021	7	29%	<0.100	0.157	0	Normal	No trend	--	KM Normal-UPL	0.194
MW-307	Calcium	mg/L	7/2020 - 11/2021	7	0%	82.4	108	0	Normal	No trend	--	Normal-UPL	120
MW-307	Chloride	mg/L	7/2020 - 11/2021	7	100%	<5.00	<5.00	--	--	100% ND	--	Non-Parametric	<5.00
MW-307	Fluoride	mg/L	7/2020 - 11/2021	7	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
MW-307	pH, lab	s.u.	7/2020 - 11/2021	7	0%	7.0H	7.3H	0	Normal (assumed)	No trend	--	Normal-UPL	6.81 - 7.56
MW-307	Sulfate	mg/L	7/2020 - 11/2021	7	0%	10.9	20.4	0	Normal	No trend	--	Normal-UPL	25.2
MW-307	TDS	mg/L	7/2020 - 11/2021	7	0%	340	426	0	Normal	No trend	--	Normal-UPL	464

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Downgradient Wells													
MW-105	Boron	mg/L	7/2021 - 10/2021	9	0%	0.141	0.207	0	Normal	No trend	--	Normal-UPL	0.242
MW-105	Calcium	mg/L	7/2021 - 10/2021	9	0%	141	163	0	Normal	No trend	--	Normal-UPL	172
MW-105	Chloride	mg/L	7/2021 - 10/2021	9	0%	15	16.5	0	Normal	No trend	--	Normal-UPL	17.7
MW-105	Fluoride	mg/L	7/2021 - 10/2021	9	89%	<0.500	0.618	--	--	<4 detects	--	Non-Parametric	0.618
MW-105	pH, lab	s.u.	7/2021 - 10/2021	9	0%	7.1	7.2	0	Normal (assumed)	No trend	--	Normal-UPL	6.98 - 7.29
MW-105	Sulfate	mg/L	7/2021 - 10/2021	9	0%	136	148	0	Normal	Increasing	0.08	Range	136 - 148
MW-105	TDS	mg/L	7/2021 - 10/2021	9	0%	608	674	0	Normal	No trend	--	Normal-UPL	723
MW-108	Boron	mg/L	7/2021 - 10/2021	9	0%	0.157	0.224	0	Normal	Increasing	1E-04	Range	0.157 - 0.224
MW-108	Calcium	mg/L	7/2021 - 10/2021	9	0%	118	140	0	Normal	No trend	--	Normal-UPL	149
MW-108	Chloride	mg/L	7/2021 - 10/2021	9	0%	18.9	21.5	0	Normal	No trend	--	Normal-UPL	22.5
MW-108	Fluoride	mg/L	7/2021 - 10/2021	9	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
MW-108	pH, lab	s.u.	7/2021 - 10/2021	9	0%	7	7.1	0	Normal (assumed)	No trend	--	Normal-UPL	6.88 - 7.21
MW-108	Sulfate	mg/L	7/2021 - 10/2021	9	67%	<5.00	15.3	--	--	<4 detects	--	Non-Parametric	15.3
MW-108	TDS	mg/L	7/2021 - 10/2021	9	0%	590	694	0	Normal	Decreasing	-0.73	Range	590 - 694
MW-133	Boron	mg/L	3/2016 - 10/2018	12	100%	<0.200	<0.200	--	--	100% ND	--	Non-Parametric	<0.200
MW-133	Calcium	mg/L	3/2016 - 10/2018	12	0%	135	184	0	Normal	No trend	--	Normal-UPL	208
MW-133	Chloride	mg/L	3/2016 - 10/2018	12	0%	6.57	21	0	Normal	Increasing	0.01	Range	6.57 - 21
MW-133	Fluoride	mg/L	3/2016 - 10/2018	12	83%	<0.500	1.3	--	--	<4 detects	--	Non-Parametric	1.30
MW-133	pH, lab	s.u.	3/2016 - 10/2018	12	0%	7	7.4	0	Normal	No trend	--	Normal-UPL	6.83 - 7.46
MW-133	Sulfate	mg/L	3/2016 - 10/2018	12	0%	157	268	0	Normal	No trend	--	Normal-UPL	289
MW-133	TDS	mg/L	3/2016 - 10/2018	12	0%	718	1390	1	Approx. Gamma ‡	No trend	--	Gamma-UPL	1525
MW-156	Boron	mg/L	3/2016 - 4/2019	12	17%	<0.200	0.374	1	Normal ⁑	No trend	--	KM Normal-UPL	0.357
MW-156	Calcium	mg/L	3/2016 - 4/2019	12	0%	184	222	0	Normal	No trend	--	Normal-UPL	238
MW-156	Chloride	mg/L	3/2016 - 4/2019	12	0%	8.14	65.8	1	Gamma	Increasing	0.02	Range	8.14 - 65.8
MW-156	Fluoride	mg/L	3/2016 - 4/2019	12	58%	<0.500	1.21	--	Normal	No trend	--	KM Normal-UPL	1.10
MW-156	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.87	7.2	0	Normal	No trend	--	Normal-UPL	6.69 - 7.31
MW-156	Sulfate	mg/L	3/2016 - 4/2019	12	0%	191	247	0	Normal	Decreasing	-0.049	Range	191 - 247
MW-156	TDS	mg/L	3/2016 - 4/2019	12	0%	878	1140	1	Gamma §	No trend	--	Gamma-UPL	1156

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Downgradient Wells (continued)													
MW-157	Boron	mg/L	5/2016 - 10/2019	12	25%	<0.200	0.412	0	Normal	No trend	--	KM Normal-UPL	0.423
MW-157	Calcium	mg/L	5/2016 - 10/2019	12	0%	195	225	0	Normal	No trend	--	Normal-UPL	239
MW-157	Chloride	mg/L	5/2016 - 10/2019	12	0%	7.25	41.1	0	Not Normal	**Increasing**	0.02	Range	7.25 - 41.1
MW-157	Fluoride	mg/L	5/2016 - 10/2019	12	75%	<0.500	0.664	--	--	<4 detects	--	Non-Parametric	0.664
MW-157	pH, lab	s.u.	5/2016 - 10/2019	12	0%	6.7	7.9	0	Approx. Normal *	No trend	--	Normal-UPL	6.01 - 8.21
MW-157	Sulfate	mg/L	5/2016 - 10/2019	12	0%	163	226	1	Normal	No trend	--	Normal-UPL	257
MW-157	TDS	mg/L	5/2016 - 10/2019	12	0%	848	1100	0	Normal	No trend	--	Normal-UPL	1171
MW-158	Boron	mg/L	3/2016 - 4/2019	12	0%	0.333	1.04	0	Normal	**Increasing**	5E-04	Range	0.333 - 1.04
MW-158	Calcium	mg/L	3/2016 - 4/2019	12	0%	253	490	1	Normal	No trend	--	Normal-UPL	514
MW-158	Chloride	mg/L	3/2016 - 4/2019	12	0%	23.3	101	0	Lognormal	No trend	--	Lognormal-UPL	127
MW-158	Fluoride	mg/L	3/2016 - 4/2019	12	92%	<0.500	0.762	--	--	<4 detects	--	Non-Parametric	0.762
MW-158	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.69	7.9	1	Normal ‡	No trend	--	Normal-UPL	6.02 - 7.81
MW-158	Sulfate	mg/L	3/2016 - 4/2019	12	0%	482	994	1	Normal	No trend	--	Normal-UPL	1087
MW-158	TDS	mg/L	3/2016 - 4/2019	12	0%	1200	2290	2	Normal	No trend	--	Normal-UPL	2445
MW-159	Boron	mg/L	3/2016 - 4/2019	12	42%	<0.200	0.348	0	Normal ‡	No trend	--	KM Normal-UPL	0.395
MW-159	Calcium	mg/L	3/2016 - 4/2019	12	0%	155	223	0	Normal	No trend	--	Normal-UPL	238
MW-159	Chloride	mg/L	3/2016 - 4/2019	12	0%	12.8	27.6	2	Lognormal	No trend	--	Lognormal-UPL	28.9
MW-159	Fluoride	mg/L	3/2016 - 4/2019	12	50%	<0.500	1.18	1	Normal ‡	No trend	--	KM Normal-UPL	1.17
MW-159	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.88	7.3	0	Normal §	No trend	--	Normal-UPL	6.65 - 7.48
MW-159	Sulfate	mg/L	3/2016 - 4/2019	12	0%	101	287	0	Normal	No trend	--	Normal-UPL	344
MW-159	TDS	mg/L	3/2016 - 4/2019	12	0%	650	1020	0	Normal	No trend	--	Normal-UPL	1208
MW-190	Boron	mg/L	3/2016 - 4/2019	12	100%	<0.200	<0.200	--	--	100% ND	--	Non-Parametric	<0.200
MW-190	Calcium	mg/L	3/2016 - 4/2019	12	0%	104	184	0	Normal	**Increasing**	0.04	Range	104 - 184
MW-190	Chloride	mg/L	3/2016 - 4/2019	12	0%	7.78	34	1	Normal ‡	No trend	--	Normal-UPL	32.5
MW-190	Fluoride	mg/L	3/2016 - 4/2019	12	50%	<0.500	0.774	0	Normal ‡	No trend	--	KM Normal-UPL	0.840
MW-190	pH, lab	s.u.	3/2016 - 4/2019	12	0%	7	8	1	Normal ‡	No trend	--	Normal-UPL	6.44 - 8.04
MW-190	Sulfate	mg/L	3/2016 - 4/2019	12	0%	102	403	1	Not Normal	**Increasing**	0.09	Range	102 - 403
MW-190	TDS	mg/L	3/2016 - 4/2019	12	0%	484	1240	1	Normal	**Increasing**	0.31	Range	484 - 1240

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Downgradient Wells (continued)													
MW-191	Boron	mg/L	3/2016 - 4/2019	12	100%	<0.200	<0.200	--	--	100% ND	--	Non-Parametric	<0.200
MW-191	Calcium	mg/L	3/2016 - 4/2019	12	0%	125	170	1	Normal	No trend	--	Normal-UPL	173
MW-191	Chloride	mg/L	3/2016 - 4/2019	12	0%	8.88	12.5	0	Normal	No trend	--	Normal-UPL	14.4
MW-191	Fluoride	mg/L	3/2016 - 4/2019	12	50%	<0.500	0.875	0	Normal ‡	No trend	--	KM Normal-UPL	0.928
MW-191	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.94	8	1	Normal (assumed)	No trend	--	Normal-UPL	6.94 - 7.93
MW-191	Sulfate	mg/L	3/2016 - 4/2019	12	0%	138	160	0	Normal	No trend	--	Normal-UPL	168
MW-191	TDS	mg/L	3/2016 - 4/2019	12	0%	680	858	0	Normal	No trend	--	Normal-UPL	928
MW-227	Boron	mg/L	3/2016 - 4/2019	12	100%	<0.200	<0.200	--	--	100% ND	--	Non-Parametric	<0.200
MW-227	Calcium	mg/L	3/2016 - 4/2019	12	0%	132	185	1	Normal	No trend	--	Normal-UPL	189
MW-227	Chloride	mg/L	3/2016 - 4/2019	12	33%	<5.00	28.3	0	Gamma	**Increasing**	0.02	Range	<5.00 - 28.3
MW-227	Fluoride	mg/L	3/2016 - 4/2019	12	75%	<0.500	0.752	--	--	<4 detects	--	Non-Parametric	0.752
MW-227	pH, lab	s.u.	3/2016 - 4/2019	12	0%	7.1	7.7	1	Normal §	No trend	--	Normal-UPL	6.72 - 7.74
MW-227	Sulfate	mg/L	3/2016 - 4/2019	12	0%	65.3	206	1	Gamma	**Increasing**	0.058	Range	65.3 - 206
MW-227	TDS	mg/L	3/2016 - 4/2019	12	0%	568	928	0	Normal	No trend	--	Normal-UPL	1016
MW-240R	Boron	mg/L	3/2016 - 4/2019	12	0%	0.245	0.318	0	Normal	No trend	--	Normal-UPL	0.340
MW-240R	Calcium	mg/L	3/2016 - 4/2019	12	0%	135	197	0	Normal	No trend	--	Normal-UPL	210
MW-240R	Chloride	mg/L	3/2016 - 4/2019	12	0%	11.5	41.5	0	Gamma	No trend	--	Gamma-UPL	57.5
MW-240R	Fluoride	mg/L	3/2016 - 4/2019	12	58%	<0.500	0.823	--	Normal ‡	No trend	--	KM Normal-UPL	0.921
MW-240R	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.9	7.2	0	Normal	No trend	--	Normal-UPL	6.80 - 7.31
MW-240R	Sulfate	mg/L	3/2016 - 4/2019	12	0%	160	218	0	Normal	No trend	--	Normal-UPL	240
MW-240R	TDS	mg/L	3/2016 - 4/2019	12	0%	784	1140	0	Normal	No trend	--	Normal-UPL	1296
MW-244	Boron	mg/L	3/2016 - 4/2019	12	83%	<0.200	0.269	--	--	<4 detects	--	Non-Parametric	0.269
MW-244	Calcium	mg/L	3/2016 - 4/2019	12	0%	116	138	0	Normal	No trend	--	Normal-UPL	148
MW-244	Chloride	mg/L	3/2016 - 4/2019	12	0%	8.83	36.1	1	Approx. Lognormal ‡	No trend	--	Lognormal-UPL	31.2
MW-244	Fluoride	mg/L	3/2016 - 4/2019	12	67%	<0.500	0.803	--	Normal ‡	No trend	--	KM Normal-UPL	0.814
MW-244	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.9	7.6	1	Normal ‡	No trend	--	Normal-UPL	6.56 - 7.65
MW-244	Sulfate	mg/L	3/2016 - 4/2019	12	0%	36.1	90.2	0	Normal	No trend	--	Normal-UPL	96.7
MW-244	TDS	mg/L	3/2016 - 4/2019	12	0%	598	800	0	Normal	No trend	--	Normal-UPL	816

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Downgradient Wells (continued)													
MW-245	Boron	mg/L	3/2016 - 4/2019	12	0%	0.256	0.364	1	Approx. Normal ‡	No trend	--	Normal-UPL	0.374
MW-245	Calcium	mg/L	3/2016 - 4/2019	12	0%	161	189	0	Normal	No trend	--	Normal-UPL	198
MW-245	Chloride	mg/L	3/2016 - 4/2019	12	0%	11.1	19.5	1	Gamma §	No trend	--	Gamma-UPL	21.4
MW-245	Fluoride	mg/L	3/2016 - 4/2019	12	50%	<0.500	4.54	1	Normal ‡	No trend	--	Normal-UPL	3.93
MW-245	pH, lab	s.u.	3/2016 - 4/2019	12	0%	6.9	7.4	1	Approx. Normal ‡	No trend	--	Normal-UPL	6.62 - 7.40
MW-245	Sulfate	mg/L	3/2016 - 4/2019	12	0%	226	294	0	Normal	Increasing	0.041	Range	226 - 294
MW-245	TDS	mg/L	3/2016 - 4/2019	12	0%	924	1690	1	Approx Lognormal*	No trend	--	Lognormal-UPL	1730
MW-246	Boron	mg/L	7/2019 - 4/2021	12	75%	0.156	<0.200	--	--	<4 detects	--	Non-Parametric	<0.200
MW-246	Calcium	mg/L	7/2019 - 4/2021	12	0%	126	220	1	Gamma §	No trend	--	Gamma-UPL	226
MW-246	Chloride	mg/L	7/2019 - 4/2021	12	0%	14.4	18.3	0	Normal	No trend	--	Normal-UPL	20.5
MW-246	Fluoride	mg/L	7/2019 - 4/2021	12	75%	<0.500	0.565	--	--	<4 detects	--	Non-Parametric	0.565
MW-246	pH, lab	s.u.	7/2019 - 4/2021	12	0%	6.9	7.7	1	Approx. Normal ‡	No trend	--	Normal-UPL	6.48 - 7.80
MW-246	Sulfate	mg/L	7/2019 - 4/2021	12	0%	46.5	99.5	1	Normal ‡	No trend	--	Normal-UPL	101
MW-246	TDS	mg/L	7/2019 - 4/2021	12	0%	606	838	1	Gamma §	No trend	--	Gamma-UPL	895
MW-247	Boron	mg/L	7/2019 - 4/2021	12	75%	0.192	0.207	--	--	<4 detects	--	Non-Parametric	0.207
MW-247	Calcium	mg/L	7/2019 - 4/2021	12	0%	121	163	0	Normal	No trend	--	Normal-UPL	181
MW-247	Chloride	mg/L	7/2019 - 4/2021	12	0%	12.4	14.8	0	Normal	Decreasing	-0.003	Range	12.4 - 14.8
MW-247	Fluoride	mg/L	7/2019 - 4/2021	12	67%	<0.500	0.703	--	Normal ‡	No trend	--	KM Normal-UPL	0.697
MW-247	pH, lab	s.u.	7/2019 - 4/2021	12	0%	7	7.5	0	Normal	Decreasing	-7E-04	Range	7.00 - 7.50
MW-247	Sulfate	mg/L	7/2019 - 4/2021	12	0%	85.9	125	1	Normal	No trend	--	Normal-UPL	140
MW-247	TDS	mg/L	7/2019 - 4/2021	12	0%	582	748	0	Normal	No trend	--	Normal-UPL	789
MW-248	Boron	mg/L	7/2019 - 4/2021	12	75%	0.166	<0.200	--	--	<4 detects	--	Non-Parametric	<0.200
MW-248	Calcium	mg/L	7/2019 - 4/2021	12	0%	99.3	136	0	Normal	No trend	--	Normal-UPL	144
MW-248	Chloride	mg/L	7/2019 - 4/2021	12	0%	8.18	15	1	Normal ‡	No trend	--	Normal-UPL	14.9
MW-248	Fluoride	mg/L	7/2019 - 4/2021	12	42%	<0.500	0.69	0	Not Normal	Decreasing	-0.001	Range	<0.500 - 0.69
MW-248	pH, lab	s.u.	7/2019 - 4/2021	12	0%	7.1	7.7	0	Not Normal	Decreasing	-5E-04	Range	7.10 - 7.70
MW-248	Sulfate	mg/L	7/2019 - 4/2021	12	0%	54.4	132	1	Normal ‡	No trend	--	Normal-UPL	131
MW-248	TDS	mg/L	7/2019 - 4/2021	12	0%	424	662	1	Normal	No trend	--	Normal-UPL	723

Table 4.3

Intra-Well Comparison Values
(Statistical Upper Prediction Limits based on Baseline Period Data at Each Well)
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Well	Analyte	Unit	Date Range	N	Percent ND	Minimum	Maximum	Statistical Outliers	Data Distribution	M-K Trend Test Result	Sen's Slope	Upper Prediction Limit (UPL) Method	UPL
Downgradient Wells (continued)													
MW-250	Boron	mg/L	7/2021 - 10/2021	9	0%	0.238	0.286	0	Normal	No trend	--	Normal-UPL	0.307
MW-250	Calcium	mg/L	7/2021 - 10/2021	9	0%	153	184	0	Normal	No trend	--	Normal-UPL	194
MW-250	Chloride	mg/L	7/2021 - 10/2021	9	0%	5.84	6.98	0	Normal	No trend	--	Normal-UPL	7.62
MW-250	Fluoride	mg/L	7/2021 - 10/2021	9	100%	<0.500	<0.500	--	--	100% ND	--	Non-Parametric	<0.500
MW-250	pH, lab	s.u.	7/2021 - 10/2021	9	0%	6.9	7.2	0	Normal §	No trend	--	Normal-UPL	6.64 - 7.32
MW-250	Sulfate	mg/L	7/2021 - 10/2021	9	0%	86	99.3	0	Normal	No trend	--	Normal-UPL	106
MW-250	TDS	mg/L	7/2021 - 10/2021	9	0%	572	664	0	Normal	No trend	--	Normal-UPL	712

Notes:
N Number of Baseline Samples
<0.100 - Not detected at the associated reporting limit.
H - Sample was prepped or analyzed beyond the specified holding time.
UPL - Upper Prediction Limits were calculated following the methodS found in the Unified Guidance.
For pH, the Lower Prediction Limit (LPL) is also shown.
When a statistically signifcant trend (increasing or decreasing) was found in the data, or when there were less than 4 detected values, the UPL is the minimum and maximum values.
Data distributions were determined by using the Shapiro-Wilk test, except for:
§ The distribution with the highest Correlation Coefficient (R) from the Goodness-of-Fit test (GOF), run by ProUCL.
* Using probability plots.
⁑ Data distribution was determined without outlier(s).
‡ By ProUCL (using detects only).

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
Upgradient Wells									
TW-1	Baseline UPL	--	0.553	265	<5.00 - 56.9	<0.500	6.63 - 7.45	6.82 - 578	1643
TW-2	Baseline UPL	--	0.544	89.7 - 228	64.1	<0.500	6.80 - 7.52	1142	1766
MW-34	Baseline UPL	--	0.196	182	9.7	<0.500	6.60 - 7.80	118	731
MW-307	Baseline UPL	--	0.194	120	<5.00	<0.500	6.81 - 7.56	25.2	464
Downgradient Wells									
MW-105	Baseline UPL	--	0.242	172	17.7	0.618	6.98 - 7.29	136 - 148	723
	04/03/2024	Detection	0.174 / 0.187	168 / 165	**23.4 / 23.3**	<1.00 / <1.00	7.1 J / 7.2 J	128 / 128	**738 / 722**
	10/02/2024	Detection	0.211 / <0.500	**196 / 209**	**34.3 / 38.9**	<1.00 / <1.00	7.0 J / 7.0 J	**171 / 173**	**884 / 882**
	12/10/2024	Verification	--	**221**	--	--	--	**176**	--
	04/02/2025	Detection	0.191 / 0.188	162 / 162	**22.4 / 20.5**	<1.00 / <1.00	**7.7 J / 7.7 J**	**154 / 151**	**762 / 758**
	06/11/2025	Verification	--	--	--	--	7.1 J	--	--
	10/02/2025	Detection	0.213 / 0.212	**187 / 176**	**33.7 / 36**	<1.00 / <1.00	**7.5 J / 7.6 J**	**181 / 183**	**898 / 888**
	12/09/2025	Verification	--	159	--	--	7.0 J	--	--
MW-108	Baseline UPL	--	0.157 - 0.224	149	22.5	<0.500	6.88 - 7.21	15.3	590 - 694
	04/03/2024	Detection	**0.227**	112	18.3	<1.00	7.1 J	<5.00	620
	06/04/2024	Verification	0.160	--	--	--	--	--	--
	10/02/2024	Detection	0.222	145	**25.2**	<1.00	7.0 J	<5.00	**702**
	12/10/2024	Verification	--	--	**23.7**	--	--	--	**796**
	04/02/2025	Detection	0.221	127	**27.4**	1.12	**7.5 J**	<5.00	682
	06/11/2025	Verification	--	--	--	<1.00	6.9 J	--	--
	10/01/2025	Detection	0.19	139	20.8	<1.00	**7.5 J**	<5.00	688
	12/09/2025	Verification	--	--	--	--	7.0 J	--	--

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-133	Baseline UPL	--	<0.200	208	6.57 - 21	1.3	6.83 - 7.46	289	1525
	04/03/2024	Detection	**0.493**	161	**109**	<1.00	7.1 J	131	780
	10/02/2024	Detection	**0.385**	192	**76.7**	<1.00	7.0 J	189	913
	04/02/2025	Detection	**0.376**	190	**101**	<1.00	**7.7 J**	272	1020
	06/11/2025	Verification	--	--	--	--	7.0 J	--	--
	10/01/2025	Detection	**0.394**	184	**81.2**	<1.00	**7.6 J**	185	908
	12/09/2025	Verification							
MW-156	Baseline UPL	--	0.357	238	8.14 - 65.8	1.105	6.69 - 7.31	191 - 247	1156
	04/03/2024	Detection	0.131	192	21.5	<1.00	7.2 J	186	780
	10/03/2024	Detection	0.192	**274**	36.6	<1.00	6.8 J	**393**	1150
	12/10/2024	Verification	--	**296**	--	--	--	**368**	--
	10/02/2025	Detection	0.237	**242**	**75.7**	<1.00	**7.5 J**	**301**	1130
	12/09/2025	Verification	--	--	--	--	7.1 J	--	--
MW-157	Baseline UPL	--	0.423	239	7.25 - 41.1	0.664	6.01 - 8.21	257	1171
	04/01/2024	Detection	<< Well dry -- no sample April 2024 >>						
	10/03/2024	Detection	<0.500	221	**51.3**	<1.00	6.9 J	186	958
	12/10/2024	Verification	--	--	**57.8**	--	--	--	--
	04/02/2025	Detection	0.344	222	**56.1**	<1.00	7.5 J	197	984
	10/02/2025	Detection	0.296	207	**55.2**	<1.00	7.4 J	186	896

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-158	Baseline UPL	--	0.333 - 1.04	514	127	0.762	6.02 - 7.81	1087	2445
	04/03/2024	Detection	0.467	279	44.3	<1.00	6.9 J	398	1210
	10/03/2024	Detection	0.803	276	27.8	<1.00	6.8 J	355	1150
	04/02/2025	Detection	0.475	363	33.9	<1.00	7.5 J	524	1560
	10/02/2025	Detection	0.651	306	28.3	<1.00	7.4 J	403	1310
MW-159	Baseline UPL	--	0.395	238	28.9	1.17	6.65 - 7.48	344	1208
	04/03/2024	Detection	0.301	212	18.9	<1.00	7.0 J	267	880
	10/03/2024	Detection	<0.500	231	16.2	<1.00	6.9 J	255	874
	04/02/2025	Detection	0.308	198	15.6	<1.00	**7.6 J**	213	866
	06/11/2025	Verification	--	--	--	--	6.9 J	--	--
	10/02/2025	Detection	0.308	188	13.5	<1.00	**7.5 J**	202	850
MW-190	Baseline UPL	--	<0.200	104 - 184	32.5	0.840	6.44 - 8.04	102 - 403	484 - 1240
	04/03/2024	Detection	0.109	**187**	11.2	<1.00	7.0 J	211	770
	06/04/2024	Verification	--	**195**	--	--	--	177	--
	10/03/2024	Detection	<0.500	176	9.60	<1.00	7.0 J	169	750
	04/02/2025	Detection	0.139	169	11.4	<1.00	7.7 J	212	810
	10/02/2025	Detection	0.142	158	11.9	<1.00	7.5 J	246	834

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-191	Baseline UPL	--	<0.200	173	14.4	0.928	6.94 - 7.93	168	928
	04/01/2024	Detection	<< Well dry -- no sample April 2024 >>						
	10/03/2024	Detection	<0.500	**182**	11.1	<1.00	7.0 J	**220**	764
	12/10/2024	Verification	--	--	--	--	--	**233**	--
	04/02/2025	Detection	0.149	165	10.5	<1.00	7.7 J	**187**	784
	10/02/2025	Detection	0.15	153	10.2	<1.00	7.6 J	**186**	766
MW-227	Baseline UPL	--	<0.200	189	<5.00 - 28.3	0.752	6.72 - 7.74	65.3 - 206	1016
	04/04/2024	Detection	0.110	154	12.3	<1.00	7.1 J	195	690
	10/02/2024	Detection	<0.500	**226**	20.2	<1.00	7.0 J	**284**	918
	12/10/2024	Verification	--	**205**	--	--	--	**237**	--
	10/01/2025	Detection	0.14	164	8.72	<1.00	7.5 J	**272**	852
MW-240R	Baseline UPL	--	0.340	210	57.5	0.92	6.80 - 7.31	240	1296
	04/04/2024	Detection	0.287 / 0.330	172 / 179	33.7 / 33.1	<1.00 / <1.00	7.1 J / 7.1 J	211 / 208	866 / 862
	10/02/2024	Detection	<0.500	171	8.6	<1.00	7.1 J	230	850
	04/03/2025	Detection	0.305 / 0.303	156 / 157	24.9 / 25.1	<1.00 / <1.00	**7.8 J / 7.5 J**	212 / 209	842 / 806
	06/11/2025	Verification	--	--	--	--	7.1 J	--	--
	10/01/2025	Detection	0.306 / 0.305	143 / 139	12.1 / 12.1	<1.00 / <1.00	**7.7 J / 7.7 J**	206 / 206	748 / 766
	12/09/2025	Verification	--	--	--	--	7.2 J	--	--

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-244	Baseline UPL	--	0.269	148	31.2	0.814	6.56 - 7.65	96.7	816
	04/03/2024	Detection	0.180	120	11.4	<1.00	7.0 J	40.6	592
	10/02/2024	Detection	<0.500	**188**	12.1	<1.00	7.1 J	**115**	790
	12/10/2024	Verification	--	147	--	--	--	56.4	--
	04/02/2025	Detection	0.14	136	11.1	<1.00	**7.7 J**	66.3	676
	10/01/2025	Detection	<0.500	**158**	11.7	<1.00	**7.7 J**	**130**	812
	12/09/2025	Verification	--	--	--	--	--	91.3	--
MW-245	Baseline UPL	--	0.374	198	21.4	3.93	6.62 - 7.40	226 - 294	1730
	04/03/2024	Detection	0.327	189	9.57	<1.00	7.0 J	169	962
	10/02/2024	Detection	<0.500	**257**	9.89	<1.00	7.0 J	**303**	1130
	12/10/2024	Verification	--	**271**	--	--	--	**357**	--
	04/02/2025	Detection	0.349	195	8.37	<1.00	**7.6 J**	207	1030
	06/11/2025	Verification	--	--	--	--	6.9 J	--	--
	10/02/2025	Detection	0.359	**232**	8.59	<1.00	**7.6 J**	**376**	1280
	12/09/2025	Verification	--	**212**	--	--	7.0 J	**383**	--
MW-246	Baseline UPL	--	<0.200	226	20.5	0.565	6.48 - 7.80	101	895
	04/03/2024	Detection	0.191	154	16.8	<1.00	7.0 J	62.6	666
	10/03/2024	Detection	<0.500	200	12.4	<1.00	7.0 J	57.4	808
	04/02/2025	Detection	0.149	167	13.2	<1.00	7.7 J	45.8	778
	10/02/2025	Detection	0.144	171	11.7	<1.00	7.6 J	71	820

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-247	Baseline UPL	--	0.207	181	12.4 - 14.8	0.697	7.00 - 7.50	140	789
	04/03/2024	Detection	0.197	161	**14.9**	<1.00	7.1 J	115	686
	06/04/2024	Verification	--	--	13.6	--	--	--	--
	10/03/2024	Detection	<0.500	**205**	**61.9**	<1.00	**6.9 J**	**171**	**882**
	12/10/2024	Verification	--	**204 / 202**	**28.4 / 28.2**	--	--	**150** / 140	**866 / 846**
	04/02/2025	Detection	0.182	145	13.8	<1.00	7.7 J	120	708
	06/11/2025	Verification	--	--	--	--	7.0 J	--	--
	10/02/2025	Detection	0.19	157	13.5	<1.00	**7.6 J**	130	762
	12/09/2025	Verification	--	--	--	--	7.0 J	--	--
MW-248	Baseline UPL	--	<0.200	144	14.9	<0.500 - 0.69	7.10 - 7.70	131	723
	04/03/2024	Detection	0.182	126	11.7	<1.00	7.1 J	93.9	578
	10/03/2024	Detection	<0.500	125	12.3	<1.00	**7.0 J**	86.9	548
	04/02/2025	Detection	0.176	153	**17.1**	<1.00	7.7 J	**157**	**740**
	06/11/2025	Verification	--	137 / 130	12.6 / 12.5	--	--	108 / 107	602 / 596
	10/02/2025	Detection	**0.224**	142	12.6	<1.00	7.6 J	**134**	664
	12/09/2025	Verification	**0.205**	--	--	--	--	118	--

Table 4.4

Intra-Well Comparisons of 2024-2025 Monitoring Data vs. Baseline UPLs
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

Site Well	Sample Date	Event Type	Appendix III Analytes						
			Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH, lab s.u.	Sulfate mg/L	TDS mg/L
		MCL/GWPS:	None	None	None	4.0 [a]	None	None	None
MW-250	Baseline UPL	--	0.307	194	7.6	<0.500	6.64 - 7.32	106	712
	04/03/2024	Detection	0.246	**220**	**9.59**	<1.00	6.9 J	**178**	**880**
	10/02/2024	Detection	<0.500	**209**	**12.1**	<1.00	6.8 J	**253**	**968**
	04/02/2025	Detection	0.24	**199**	**12.2**	<1.00	**7.5 J**	**207**	**926**
	06/11/2025	Verification	--	--	--	--	6.9 J	--	--
	10/02/2025	Detection	0.226	**220**	**11.9**	<1.00	**7.5 J**	**224**	**1000**
	12/09/2025	Verification	--	--	--	--	6.9 J	--	--

Notes:

[a] Maximum contaminant level (MCL) established under 40 CFR 257.95(h)(1).

[b] Groundwater protection standard (GWPS) established under 40 CFR 257.95(h)(2).

0.19 /0.175 - Field duplicate results.

<0.500 - Not detected at the associated reporting limit.

J - Estimated concentration.

174 Value exceeds intra-well baseline UPL (or is outside the baseline pH range).

§ - Trend present during baseline period and therefore no UPL was calculated but the baseline concentration range is listed for comparison.

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
Upgradient Wells												
TW-1	Boron	mg/L	7/2020 - 9/2025	15	0%	12	0%	0.175	0.426	-6	0.738	No trend
TW-1	Calcium	mg/L	7/2020 - 9/2025	15	0%	12	0%	164	241	3	0.894	No trend
TW-1	Chloride	mg/L	7/2020 - 9/2025	15	7%	12	8%	<5.00	56.9	24	0.116	No trend
TW-1	Fluoride	mg/L	7/2020 - 9/2025	15	100%	12	100%	<0.500	<1.00	--	--	100% ND
TW-1	pH, lab	s.u.	7/2020 - 9/2025	15	0%	12	0%	6.8H	7.3H	-1	1	No trend
TW-1	Sulfate	mg/L	7/2020 - 9/2025	15	0%	12	0%	6.82	578	20	0.196	No trend
TW-1	TDS	mg/L	7/2020 - 9/2025	15	0%	12	0%	736	1520	4	0.84	No trend
TW-2	Boron	mg/L	7/2020 - 9/2025	15	0%	12	0%	0.163	0.443	6	0.738	No trend
TW-2	Calcium	mg/L	7/2020 - 9/2025	15	0%	12	0%	89.7	228	16	0.310	No trend
TW-2	Chloride	mg/L	7/2020 - 9/2025	15	0%	12	0%	5.93	47.8	8	0.638	No trend
TW-2	Fluoride	mg/L	7/2020 - 9/2025	15	100%	12	100%	<0.500	<1.00	--	--	100% ND
TW-2	pH, lab	s.u.	7/2020 - 9/2025	15	0%	12	0%	7.1H	7.4H	9	0.592	No trend
TW-2	Sulfate	mg/L	7/2020 - 9/2025	15	7%	12	8%	<5.00	432	-16	0.31	No trend
TW-2	TDS	mg/L	7/2020 - 9/2025	15	0%	12	0%	474	1320	13	0.420	No trend
MW-34	Boron	mg/L	7/2020 - 9/2025	15	27%	12	25%	<0.100	0.192	10	0.546	No trend
MW-34	Calcium	mg/L	7/2020 - 9/2025	15	0%	12	0%	85.1	173	-20	0.196	No trend
MW-34	Chloride	mg/L	7/2020 - 9/2025	15	13%	12	8%	<5.00	9.32	23	0.134	No trend
MW-34	Fluoride	mg/L	7/2020 - 9/2025	15	100%	12	100%	<0.500	<1.00	--	--	100% ND
MW-34	pH, lab	s.u.	7/2020 - 9/2025	15	0%	12	0%	7.0H	7.5 J	9	0.592	No trend
MW-34	Sulfate	mg/L	7/2020 - 9/2025	15	0%	12	0%	12	104	-16	0.310	No trend
MW-34	TDS	mg/L	7/2020 - 9/2025	15	0%	12	0%	390	646	-22	0.152	No trend
MW-307	Boron	mg/L	7/2020 - 9/2025	10	20%	7	14%	<0.100	0.202	19	0.0028	**Increasing**
MW-307	Calcium	mg/L	7/2020 - 9/2025	10	0%	7	0%	87.4	130	9.000	0.238	No trend
MW-307	Chloride	mg/L	7/2020 - 9/2025	10	100%	7	100%	<5.00	<5.00	--	--	100% ND
MW-307	Fluoride	mg/L	7/2020 - 9/2025	10	100%	7	100%	<0.500	<1.00	--	--	100% ND
MW-307	pH, lab	s.u.	7/2020 - 9/2025	10	0%	7	0%	7.0H	7.3H	-5	0.562	No trend
MW-307	Sulfate	mg/L	7/2020 - 9/2025	10	0%	7	0%	10.9	97	15	0.03	**Increasing**

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-307	TDS	mg/L	7/2020 - 9/2025	10	0%	7	0%	340	532	9	0.238	No trend
MW-307D	Boron	mg/L	4/2024 - 9/2025	7	0%	7	0%	0.191	0.246	4.0	0.667	No trend
MW-307D	Calcium	mg/L	4/2024 - 9/2025	7	0%	7	0%	113	127	3.0	0.772	No trend
MW-307D	Chloride	mg/L	4/2024 - 9/2025	7	86%	7	86%	<5.00	5.14	6.0	0.472	<4 detects
MW-307D	Fluoride	mg/L	4/2024 - 9/2025	7	100%	7	100%	<1.00	<1.00	--	--	100% ND
MW-307D	pH, lab	s.u.	4/2024 - 9/2025	7	0%	7	0%	6.9 J	7.3 J	-3.0	0.772	No trend
MW-307D	Sulfate	mg/L	4/2024 - 9/2025	7	0%	7	0%	25.9	59.2	5.0	0.562	No trend
MW-307D	TDS	mg/L	4/2024 - 9/2025	7	0%	7	0%	390	534	8.0	0.31	No trend
Downgradient Wells												
MW-105	Boron	mg/L	7/2021 - 10/2025	17	0%	10	0%	0.161 / 0.155	0.213 / 0.212	23	0.046	**Increasing**
MW-105	Calcium	mg/L	7/2021 - 10/2025	17	0%	10	0%	152	196 / 209	20	0.090	No trend
MW-105	Chloride	mg/L	7/2021 - 10/2025	17	0%	10	0%	15	34.3 / 38.9	33	0.002	**Increasing**
MW-105	Fluoride	mg/L	7/2021 - 10/2025	17	94%	10	100%	<0.500	<1.00 / <1.00	0	1.069	<4 detects
MW-105	pH, lab	s.u.	7/2021 - 10/2025	18	0%	10	0%	7.0 J / 7.0 J	7.9 J / 7.9 J	9	0.484	No trend
MW-105	Sulfate	mg/L	7/2021 - 10/2025	17	0%	10	0%	126 / 127	181 / 183	17	0.156	No trend
MW-105	TDS	mg/L	7/2021 - 10/2025	17	0%	10	0%	622	898 / 888	38	0.000	**Increasing**
MW-108	Boron	mg/L	7/2021 - 10/2025	18	0%	10	0%	0.175	0.227	14	0.254	No trend
MW-108	Calcium	mg/L	7/2021 - 10/2025	17	0%	10	0%	109	147 / 145	-2	0.931	No trend
MW-108	Chloride	mg/L	7/2021 - 10/2025	17	0%	10	0%	16.7	27.4	3	0.862	No trend
MW-108	Fluoride	mg/L	7/2021 - 10/2025	18	94%	10	90%	<0.500	1.12	7	0.600	<4 detects
MW-108	pH, lab	s.u.	7/2021 - 10/2025	17	0%	10	0%	7.0 J	7.9 J	9	0.484	No trend
MW-108	Sulfate	mg/L	7/2021 - 10/2025	17	76%	10	80%	<5.00	12.3	-15	0.216	No trend
MW-108	TDS	mg/L	7/2021 - 10/2025	17	0%	10	0%	590	702	16	0.186	No trend
MW-133	Boron	mg/L	3/2016 - 10/2025	34	47%	13	0%	0.118	0.524	32	0.058	No trend
MW-133	Calcium	mg/L	3/2016 - 10/2025	34	0%	20	0%	135	232	37	0.248	No trend
MW-133	Chloride	mg/L	3/2016 - 10/2025	38	0%	20	0%	6.57	153	107	0E+00	**Increasing**
MW-133	Fluoride	mg/L	3/2016 - 10/2025	34	91%	20	90%	<0.500	2.47	-21	0.522	<4 detects

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-133	pH, lab	s.u.	3/2016 - 10/2025	34	0%	20	0%	7	7.8 J	44	0.164	No trend
MW-133	Sulfate	mg/L	3/2016 - 10/2025	33	0%	20	0%	131	275 / 294	-10	0.774	No trend
MW-133	TDS	mg/L	3/2016 - 10/2025	34	0%	20	0%	672	1070	28	0.386	No trend
MW-156	Boron	mg/L	3/2016 - 10/2025	19	11%	13	8%	0.15	0.374	-18	0.306	No trend
MW-156	Calcium	mg/L	3/2016 - 10/2025	20	0%	14	0%	186	274	13	0.518	No trend
MW-156	Chloride	mg/L	3/2016 - 10/2025	21	0%	13	0%	8.14	75.7	44	0.006	Increasing
MW-156	Fluoride	mg/L	3/2016 - 10/2025	19	74%	14	79%	<0.500	1.21	-20	0.306	No trend
MW-156	pH, lab	s.u.	3/2016 - 10/2025	19	0%	14	0%	6.8 J	7.5 J	4	0.872	No trend
MW-156	Sulfate	mg/L	3/2016 - 10/2025	20	0%	14	0%	191	393	35	0.062	No trend
MW-156	TDS	mg/L	3/2016 - 10/2025	20	0%	14	0%	798	1150	14	0.484	No trend
MW-156D	Boron	mg/L	4/2024 - 10/2025	7	0%	7	0%	0.105	0.244	11.0	0.136	No trend
MW-156D	Calcium	mg/L	4/2024 - 10/2025	7	0%	7	0%	192	342	-3.0	0.772	No trend
MW-156D	Chloride	mg/L	4/2024 - 10/2025	7	0%	7	0%	14.9	52.3	-5.0	0.562	No trend
MW-156D	Fluoride	mg/L	4/2024 - 10/2025	7	100%	7	100%	<1.00	<1.00	--	--	100% ND
MW-156D	pH, lab	s.u.	4/2024 - 10/2025	7	0%	7	0%	6.8 J	7.6 J	7.0	0.382	No trend
MW-156D	Sulfate	mg/L	4/2024 - 10/2025	7	0%	7	0%	186	722	3.0	0.772	No trend
MW-156D	TDS	mg/L	4/2024 - 10/2025	7	0%	7	0%	780	1620	-2.0	0.886	No trend
MW-157	Boron	mg/L	5/2016 - 10/2025	21	19%	13	0%	0.173	0.355	37	0.026	Increasing
MW-157	Calcium	mg/L	5/2016 - 10/2025	21	0%	17	0%	175	238	6	0.840	No trend
MW-157	Chloride	mg/L	5/2016 - 10/2025	22	0%	17	0%	7.25	74.9	91	0.000	Increasing
MW-157	Fluoride	mg/L	5/2016 - 10/2025	21	86%	17	88%	<0.500	<1.00	-21	0.416	<4 detects
MW-157	pH, lab	s.u.	5/2016 - 10/2025	21	0%	17	0%	6.82	7.8	36	0.152	No trend
MW-157	Sulfate	mg/L	5/2016 - 10/2025	21	0%	17	0%	156	222	-18	0.490	No trend
MW-157	TDS	mg/L	5/2016 - 10/2025	21	0%	17	0%	786	1020	-15	0.570	No trend
MW-158	Boron	mg/L	3/2016 - 10/2025	25	0%	20	0%	0.406	1.04	-10	0.774	No trend
MW-158	Calcium	mg/L	3/2016 - 10/2025	25	0%	20	0%	185	414	-42	2E-01	No trend
MW-158	Chloride	mg/L	3/2016 - 10/2025	25	0%	20	0%	23.3	51.2	10	0.774	No trend
MW-158	Fluoride	mg/L	3/2016 - 10/2025	26	92%	20	90%	<0.500	1.04	-19	0.564	<4 detects

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-158	pH, lab	s.u.	3/2016 - 10/2025	25	0%	20	0%	6.69	7.7 J	70	0.024	Increasing
MW-158	Sulfate	mg/L	3/2016 - 10/2025	25	0%	20	0%	248	754	-90	0.004	Decreasing
MW-158	TDS	mg/L	3/2016 - 10/2025	25	0%	20	0%	790	1860	-64	0.040	Decreasing
MW-159	Boron	mg/L	3/2016 - 10/2025	26	27%	14	0%	0.176	0.511	12	0.554	No trend
MW-159	Calcium	mg/L	3/2016 - 10/2025	25	0%	20	0%	155	244	66	0.034	Increasing
MW-159	Chloride	mg/L	3/2016 - 10/2025	25	0%	20	0%	12.8	27.6	-16	0.630	No trend
MW-159	Fluoride	mg/L	3/2016 - 10/2025	25	72%	20	80%	<0.500	1.18	-40	0.208	No trend
MW-159	pH, lab	s.u.	3/2016 - 10/2025	26	0%	20	0%	6.88	7.8 J	52	0.098	No trend
MW-159	Sulfate	mg/L	3/2016 - 10/2025	25	0%	20	0%	101	287	54	0.086	No trend
MW-159	TDS	mg/L	3/2016 - 10/2025	25	0%	20	0%	588	968	7	0.848	No trend
MW-190	Boron	mg/L	3/2016 - 10/2025	26	54%	11	0%	0.109	0.208	-36	0.006	Decreasing
MW-190	Calcium	mg/L	3/2016 - 10/2025	30	0%	20	0%	127	250 / 204	67	0.032	Increasing
MW-190	Chloride	mg/L	3/2016 - 10/2025	31	0%	20	0%	8.46	34	-27	0.404	No trend
MW-190	Fluoride	mg/L	3/2016 - 10/2025	25	72%	20	80%	<0.500	<1.00	-46	0.146	No trend
MW-190	pH, lab	s.u.	3/2016 - 10/2025	27	0%	20	0%	7	7.9 J	42	0.186	No trend
MW-190	Sulfate	mg/L	3/2016 - 10/2025	31	0%	21	0%	127	403	24	0.492	No trend
MW-190	TDS	mg/L	3/2016 - 10/2025	27	0%	20	0%	572	1240	34	0.288	No trend
MW-191	Boron	mg/L	3/2016 - 10/2025	22	64%	8	0%	0.128	0.168	4	0.720	No trend
MW-191	Calcium	mg/L	3/2016 - 10/2025	22	0%	17	0%	125	233	55	0.026	Increasing
MW-191	Chloride	mg/L	3/2016 - 10/2025	22	0%	17	0%	8.88	13.2	-14	0.598	No trend
MW-191	Fluoride	mg/L	3/2016 - 10/2025	22	68%	17	71%	<0.500	<1.00	-50	0.042	Decreasing
MW-191	pH, lab	s.u.	3/2016 - 10/2025	22	0%	17	0%	6.94	7.9 J	61	0.012	Increasing
MW-191	Sulfate	mg/L	3/2016 - 10/2025	24	0%	17	0%	138	220	76	0.002	Increasing
MW-191	TDS	mg/L	3/2016 - 10/2025	22	0%	17	0%	640	806	33	0.190	No trend
MW-227	Boron	mg/L	3/2016 - 10/2025	19	74%	5	0%	0.12	0.179	0	1.184	No trend
MW-227	Calcium	mg/L	3/2016 - 10/2025	22	0%	14	0%	115	226	23	0.234	No trend
MW-227	Chloride	mg/L	3/2016 - 10/2025	22	18%	14	14%	<5.00	28.3	15	0.450	No trend
MW-227	Fluoride	mg/L	3/2016 - 10/2025	20	80%	14	79%	<0.500	<1.00	-14	0.484	No trend

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-227	pH, lab	s.u.	3/2016 - 10/2025	19	0%	14	0%	7.0 J	7.5 J	12	0.554	No trend
MW-227	Sulfate	mg/L	3/2016 - 10/2025	21	0%	15	0%	46.7	284	29	0.168	No trend
MW-227	TDS	mg/L	3/2016 - 10/2025	20	0%	15	0%	492	928	13	0.558	No trend
MW-227D	Boron	mg/L	4/2024 - 10/2025	7	14%	7	14%	<0.100	0.223	11.0	0.136	No trend
MW-227D	Calcium	mg/L	4/2024 - 10/2025	7	0%	7	0%	127 J	181	2.0	0.886	No trend
MW-227D	Chloride	mg/L	4/2024 - 10/2025	7	0%	7	0%	7.12	27.9	-1.0	1	No trend
MW-227D	Fluoride	mg/L	4/2024 - 10/2025	7	100%	7	100%	<1.00	<1.00	--	--	100% ND
MW-227D	pH, lab	s.u.	4/2024 - 10/2025	7	0%	7	0%	7.0 J	9.1 J	3.0	0.772	No trend
MW-227D	Sulfate	mg/L	4/2024 - 10/2025	7	0%	7	0%	155	251	1.0	1	No trend
MW-227D	TDS	mg/L	4/2024 - 10/2025	7	0%	7	0%	638	910	5.0	0.562	No trend
MW-240R	Boron	mg/L	3/2016 - 10/2025	25	4%	19	0%	0.206	0.328	36	0.224	No trend
MW-240R	Calcium	mg/L	3/2016 - 10/2025	25	0%	20	0%	99.9	203	0	1.026	No trend
MW-240R	Chloride	mg/L	3/2016 - 10/2025	30	0%	20	0%	6.68	68.3	9	0.798	No trend
MW-240R	Fluoride	mg/L	3/2016 - 10/2025	27	74%	20	80%	<0.500	<1.00 / <1.00	-46	0.146	No trend
MW-240R	pH, lab	s.u.	3/2016 - 10/2025	25	0%	20	0%	6.9	7.9 J / 7.9 J	44	0.164	No trend
MW-240R	Sulfate	mg/L	3/2016 - 10/2025	25	0%	20	0%	75.2	233 / 230	51	0.106	No trend
MW-240R	TDS	mg/L	3/2016 - 10/2025	26	0%	20	0%	412	1010	-75	0.016	Decreasing
MW-244	Boron	mg/L	3/2016 - 10/2025	25	52%	10	0%	0.1	0.205	3	0.862	No trend
MW-244	Calcium	mg/L	3/2016 - 10/2025	26	0%	20	0%	120	208	54	0.086	No trend
MW-244	Chloride	mg/L	3/2016 - 10/2025	25	0%	20	0%	9.33	12.1	66	0.034	Increasing
MW-244	Fluoride	mg/L	3/2016 - 10/2025	25	84%	20	85%	<0.500	<1.00	-36	0.260	No trend
MW-244	pH, lab	s.u.	3/2016 - 10/2025	26	0%	20	0%	6.9	7.9 J	66	0.034	Increasing
MW-244	Sulfate	mg/L	3/2016 - 10/2025	25	0%	20	0%	8.02 J-	130	45	0.156	No trend
MW-244	TDS	mg/L	3/2016 - 10/2025	25	0%	20	0%	526	812	20	0.542	No trend
MW-245	Boron	mg/L	3/2016 - 10/2025	24	4%	18	0%	0.229	0.391	87	0.000	Increasing
MW-245	Calcium	mg/L	3/2016 - 10/2025	27	0%	19	0%	159	257	62	0.032	Increasing
MW-245	Chloride	mg/L	3/2016 - 10/2025	24	0%	19	0%	8.37	18.5	-121	0.000	Decreasing
MW-245	Fluoride	mg/L	3/2016 - 10/2025	26	69%	19	68%	<0.500	4.54	-61	0.034	Decreasing

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-245	pH, lab	s.u.	3/2016 - 10/2025	25	0%	19	0%	6.9	7.7 J	54	0.064	No trend
MW-245	Sulfate	mg/L	3/2016 - 10/2025	25	0%	19	0%	166	376	-50	0.088	No trend
MW-245	TDS	mg/L	3/2016 - 10/2025	24	0%	19	0%	824	1340	1	1.000	No trend
MW-246	Boron	mg/L	7/2019 - 10/2025	20	50%	10	0%	0.137	0.21	-7	0.600	No trend
MW-246	Calcium	mg/L	7/2019 - 10/2025	22	0%	13	0%	128	220	11	0.550	No trend
MW-246	Chloride	mg/L	7/2019 - 10/2025	20	0%	13	0%	11.7	17.3	-52	0.000	Decreasing
MW-246	Fluoride	mg/L	7/2019 - 10/2025	20	85%	13	100%	<0.500	<1.00	0	1.048	<4 detects
MW-246	pH, lab	s.u.	7/2019 - 10/2025	20	0%	13	0%	6.9	7.8 J	24	0.164	No trend
MW-246	Sulfate	mg/L	7/2019 - 10/2025	22	0%	13	0%	45.8	99.5	-12	0.510	No trend
MW-246	TDS	mg/L	7/2019 - 10/2025	22	0%	13	0%	622	838	19	0.280	No trend
MW-247	Boron	mg/L	7/2019 - 10/2025	24	42%	11	0%	0.17	0.209	-13	0.358	No trend
MW-247	Calcium	mg/L	7/2019 - 10/2025	22	0%	14	0%	121	205	10	0.630	No trend
MW-247	Chloride	mg/L	7/2019 - 10/2025	23	0%	14	0%	12.4	61.9	28	0.142	No trend
MW-247	Fluoride	mg/L	7/2019 - 10/2025	22	82%	14	93%	<0.500	<1.00	-11	0.590	No trend
MW-247	pH, lab	s.u.	7/2019 - 10/2025	23	0%	14	0%	6.9 J	7.9 J	17	0.388	No trend
MW-247	Sulfate	mg/L	7/2019 - 10/2025	22	0%	14	0%	58.9	171	29	0.126	No trend
MW-247	TDS	mg/L	7/2019 - 10/2025	22	0%	14	0%	568	882	31	0.100	No trend
MW-248	Boron	mg/L	7/2019 - 10/2025	21	48%	11	0%	0.157	0.224	13	0.358	No trend
MW-248	Calcium	mg/L	7/2019 - 10/2025	25	0%	14	0%	109	165	25	0.192	No trend
MW-248	Chloride	mg/L	7/2019 - 10/2025	24	0%	14	0%	9.01	17.1	38	0.042	Increasing
MW-248	Fluoride	mg/L	7/2019 - 10/2025	21	67%	14	79%	<0.500	<1.00	-35	0.062	No trend
MW-248	pH, lab	s.u.	7/2019 - 10/2025	21	0%	14	0%	7.0 J	7.9 J	5	0.830	No trend
MW-248	Sulfate	mg/L	7/2019 - 10/2025	26	0%	14	0%	54.4	157	29	0.126	No trend
MW-248	TDS	mg/L	7/2019 - 10/2025	22	0%	14	0%	476	740	32	0.090	No trend
MW-250	Boron	mg/L	7/2021 - 10/2025	18	6%	9	0%	0.215	0.304	-14	0.180	No trend
MW-250	Calcium	mg/L	7/2021 - 10/2025	18	0%	10	0%	161	241	16	0.186	No trend
MW-250	Chloride	mg/L	7/2021 - 10/2025	18	0%	10	0%	5.41	12.2	35	0.001	Increasing
MW-250	Fluoride	mg/L	7/2021 - 10/2025	17	100%	10	100%	<0.500	<1.00	--	--	100% ND

Table 4.5

Mann-Kendall Trend Test Results
Walter Scott Jr. Energy Center
WSEC CCR Monofill - Council Bluffs, Iowa

				All Data		Data Used for the Mann-Kendall Trend Test						
Well	Analyte	Unit	Date Range	Number of Samples	Percent ND	Number of Samples[1]	Percent ND[2]	Minimum	Maximum	Statistic	Probability	Conclusion
MW-250	pH, lab	s.u.	7/2021 - 10/2025	19	0%	10	0%	6.8 J	7.8 J	4	0.795	No trend
MW-250	Sulfate	mg/L	7/2021 - 10/2025	18	0%	10	0%	73.4	306 J-	23	0.046	**Increasing**
MW-250	TDS	mg/L	7/2021 - 10/2025	18	0%	10	0%	578	1040	27	0.017	**Increasing**

Notes:

<5.00 - Not detected at the associated reporting limit.

19.1 /18.5 - field duplicate results.

H - Sample was prepped or analyzed beyond the specified holding time.

100% ND: no detected values in the data set; no test performed.

Statistic: calculated as the sum of the signs of all possible pair-wise data comparisons

Probability of significance: A value less than 0.05 indicates greater than 95 percent confidence of a statistically significant trend for data sets with more than 4 observations. A value less than 0.1 indicates greater than 90 percent confidence of a statistically significant trend for data sets with 4 observations

[1] Due to differences in sampling frequency during the earlier period (quarterly, in most cases), data were removed to match the current sampling frequency (semi-annual).

[2] Non-detects with detection limits above some detected values were excluded from the trend test.

Appendices

Appendix A

Groundwater Sample Collection Records

Low-Flow Test Report:

Test Date / Time: 1/23/2025 12:19:10 PM
Project: WSEC MW-156D
Operator Name: Brooke Wasson

Location Name: MW-156D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.5 ft** **Total Depth: 31.5 ft** **Initial Depth to Water: 22.5 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.5 ft** **Pump Intake From TOC: 29.5 ft** **Estimated Total Volume Pumped: 25565 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 897294**

Test Notes:
Sampled 1345
Water appears perfectly clear. Believed error with turbidity sensor

Weather Conditions:
15 degrees F sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
1/23/2025 12:19 PM	00:00	6.85 pH	5.90 °C	1.86 mS/cm	9.50 mg/L	2,015.9 NTU	1.6 mV	22.50 ft	300.00 ml/min
1/23/2025 12:21 PM	02:18	6.51 pH	9.73 °C	1.48 mS/cm	1.89 mg/L	70,860 NTU	1.5 mV	22.50 ft	300.00 ml/min
1/23/2025 12:23 PM	04:36	6.57 pH	9.64 °C	1.48 mS/cm	2.04 mg/L	52,765 NTU	3.6 mV	22.50 ft	300.00 ml/min
1/23/2025 12:26 PM	06:54	6.60 pH	9.85 °C	1.47 mS/cm	2.16 mg/L	36,445 NTU	5.5 mV	22.50 ft	300.00 ml/min
1/23/2025 12:28 PM	09:12	6.30 pH	6.86 °C	0.01 mS/cm	5.81 mg/L	0.00 NTU	6.7 mV	22.50 ft	300.00 ml/min
1/23/2025 12:30 PM	11:30	6.64 pH	9.48 °C	1.45 mS/cm	2.57 mg/L	20,495 NTU	9.6 mV	22.50 ft	300.00 ml/min
1/23/2025 12:32 PM	13:48	6.67 pH	9.60 °C	1.19 mS/cm	2.70 mg/L	12,285 NTU	10.9 mV	22.50 ft	300.00 ml/min
1/23/2025 12:35 PM	16:06	6.69 pH	9.81 °C	1.15 mS/cm	2.72 mg/L	9,923.4 NTU	11.9 mV	22.50 ft	300.00 ml/min
1/23/2025 12:37 PM	18:24	6.72 pH	9.75 °C	1.49 mS/cm	3.78 mg/L	7,598.5 NTU	12.7 mV	22.50 ft	300.00 ml/min
1/23/2025 12:39 PM	20:42	6.71 pH	9.98 °C	1.42 mS/cm	2.49 mg/L	6,102.2 NTU	13.4 mV	22.50 ft	300.00 ml/min
1/23/2025 12:42 PM	23:00	6.74 pH	9.97 °C	1.39 mS/cm	2.58 mg/L	5,289.6 NTU	13.3 mV	22.50 ft	300.00 ml/min

1/23/2025 12:44 PM	25:18	6.76 pH	9.66 °C	1.39 mS/cm	2.66 mg/L	3,683.1 NTU	13.8 mV	22.50 ft	300.00 ml/min
1/23/2025 12:46 PM	27:36	6.78 pH	9.68 °C	1.27 mS/cm	2.78 mg/L	4,692.2 NTU	14.1 mV	22.50 ft	300.00 ml/min
1/23/2025 12:49 PM	29:54	6.78 pH	9.73 °C	1.47 mS/cm	2.67 mg/L	2,798.2 NTU	14.4 mV	22.50 ft	300.00 ml/min
1/23/2025 12:51 PM	32:12	6.78 pH	9.72 °C	1.47 mS/cm	2.39 mg/L	3,217.0 NTU	14.7 mV	22.50 ft	300.00 ml/min
1/23/2025 12:53 PM	34:30	6.72 pH	10.29 °C	1.47 mS/cm	0.41 mg/L	2,249.3 NTU	14.6 mV	22.50 ft	300.00 ml/min
1/23/2025 12:56 PM	36:55	5.80 pH	10.65 °C	0.00 mS/cm	10.06 mg/L	0.00 NTU	6.8 mV	22.50 ft	300.00 ml/min
1/23/2025 12:58 PM	39:13	6.75 pH	10.57 °C	1.20 mS/cm	0.94 mg/L	2,068.0 NTU	13.9 mV	22.50 ft	300.00 ml/min
1/23/2025 1:00 PM	41:31	6.76 pH	10.60 °C	0.93 mS/cm	0.72 mg/L	1,047.8 NTU	13.5 mV	22.50 ft	300.00 ml/min
1/23/2025 1:02 PM	43:49	6.78 pH	10.41 °C	1.43 mS/cm	0.71 mg/L	1,028.6 NTU	13.7 mV	22.50 ft	300.00 ml/min
1/23/2025 1:05 PM	46:07	6.79 pH	10.35 °C	1.22 mS/cm	0.80 mg/L	831.55 NTU	14.0 mV	22.50 ft	300.00 ml/min
1/23/2025 1:07 PM	48:25	6.79 pH	10.39 °C	1.13 mS/cm	0.79 mg/L	740.96 NTU	14.3 mV	22.50 ft	300.00 ml/min
1/23/2025 1:09 PM	50:43	6.78 pH	10.30 °C	1.11 mS/cm	0.67 mg/L	602.39 NTU	14.9 mV	22.50 ft	300.00 ml/min
1/23/2025 1:12 PM	53:01	6.77 pH	10.47 °C	1.10 mS/cm	0.65 mg/L	481.55 NTU	15.5 mV	22.50 ft	300.00 ml/min
1/23/2025 1:14 PM	55:19	6.77 pH	10.79 °C	0.94 mS/cm	0.61 mg/L	471.88 NTU	15.2 mV	22.50 ft	300.00 ml/min
1/23/2025 1:16 PM	57:37	6.77 pH	10.87 °C	0.92 mS/cm	0.53 mg/L	317.71 NTU	15.2 mV	22.50 ft	300.00 ml/min
1/23/2025 1:19 PM	59:55	6.78 pH	10.47 °C	0.92 mS/cm	0.49 mg/L	316.24 NTU	15.7 mV	22.50 ft	300.00 ml/min
1/23/2025 1:21 PM	01:02:13	6.78 pH	10.29 °C	0.94 mS/cm	0.45 mg/L	234.64 NTU	16.3 mV	22.50 ft	300.00 ml/min
1/23/2025 1:23 PM	01:04:31	6.77 pH	10.56 °C	0.96 mS/cm	0.41 mg/L	244.58 NTU	16.3 mV	22.50 ft	300.00 ml/min
1/23/2025 1:25 PM	01:06:49	6.77 pH	10.21 °C	0.95 mS/cm	0.42 mg/L	176.59 NTU	17.5 mV	22.50 ft	300.00 ml/min
1/23/2025 1:28 PM	01:09:07	6.76 pH	10.46 °C	1.16 mS/cm	0.35 mg/L	140.61 NTU	17.2 mV	22.50 ft	300.00 ml/min
1/23/2025 1:30 PM	01:11:25	6.77 pH	10.28 °C	1.16 mS/cm	0.27 mg/L	111.46 NTU	17.3 mV	22.50 ft	300.00 ml/min
1/23/2025 1:32 PM	01:13:43	6.77 pH	10.61 °C	1.16 mS/cm	0.30 mg/L	107.91 NTU	16.9 mV	22.50 ft	300.00 ml/min
1/23/2025 1:35 PM	01:16:01	6.77 pH	10.50 °C	1.14 mS/cm	0.23 mg/L	111.82 NTU	16.9 mV	22.50 ft	300.00 ml/min
1/23/2025 1:37 PM	01:18:19	6.76 pH	10.66 °C	1.15 mS/cm	0.22 mg/L	82.18 NTU	17.2 mV	22.50 ft	300.00 ml/min
1/23/2025 1:39 PM	01:20:37	6.75 pH	10.72 °C	1.20 mS/cm	0.20 mg/L	85.50 NTU	17.7 mV	22.50 ft	300.00 ml/min
1/23/2025 1:42 PM	01:22:55	6.76 pH	10.80 °C	1.14 mS/cm	0.18 mg/L	49.13 NTU	17.2 mV	22.50 ft	300.00 ml/min
1/23/2025 1:44 PM	01:25:13	6.77 pH	10.40 °C	1.12 mS/cm	0.18 mg/L	68.17 NTU	17.5 mV	22.50 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW156D-GW-0125	

Low-Flow Test Report:

Test Date / Time: 1/23/2025 1:59:59 PM
Project: WSEC MW-227D
Operator Name: Brooke Wasson

Location Name: MW-227D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 17.65 ft** **Total Depth: 32.65 ft** **Initial Depth to Water: 22.77 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.65 ft** **Pump Intake From TOC: 30.65 ft** **Estimated Total Volume Pumped: 18020 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 897294**

Test Notes:
Sampled 1500
Turbidity live reading <10

Weather Conditions:
20 degrees F sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
1/23/2025 1:59 PM	00:00	7.25 pH	10.58 °C	1.14 mS/cm	8.64 mg/L	5,564.3 NTU	7.8 mV	22.77 ft	300.00 ml/min
1/23/2025 2:02 PM	02:20	6.88 pH	10.55 °C	1.10 mS/cm	1.18 mg/L	39,964 NTU	2.7 mV	22.77 ft	300.00 ml/min
1/23/2025 2:04 PM	04:40	7.01 pH	7.60 °C	1.10 mS/cm	5.29 mg/L	40,108 NTU	-2.9 mV	22.77 ft	300.00 ml/min
1/23/2025 2:06 PM	07:00	6.85 pH	8.60 °C	1.10 mS/cm	0.55 mg/L	34,375 NTU	-6.5 mV	22.77 ft	300.00 ml/min
1/23/2025 2:09 PM	09:20	6.84 pH	8.57 °C	1.10 mS/cm	0.35 mg/L	32,354 NTU	-10.6 mV	22.77 ft	300.00 ml/min
1/23/2025 2:13 PM	13:24	6.08 pH	4.75 °C	0.00 mS/cm	11.88 mg/L	0.00 NTU	0.7 mV	22.77 ft	300.00 ml/min
1/23/2025 2:15 PM	15:44	6.82 pH	8.73 °C	1.11 mS/cm	1.11 mg/L	21,100 NTU	-24.2 mV	22.77 ft	300.00 ml/min
1/23/2025 2:18 PM	18:04	6.84 pH	8.86 °C	1.10 mS/cm	0.87 mg/L	21,689 NTU	-30.7 mV	22.77 ft	300.00 ml/min
1/23/2025 2:20 PM	20:24	6.87 pH	8.67 °C	1.10 mS/cm	1.07 mg/L	23,300 NTU	-36.3 mV	22.77 ft	300.00 ml/min
1/23/2025 2:22 PM	22:44	6.89 pH	8.30 °C	1.10 mS/cm	0.47 mg/L	14,272 NTU	-40.4 mV	22.77 ft	300.00 ml/min
1/23/2025 2:25 PM	25:04	6.88 pH	8.65 °C	1.10 mS/cm	0.71 mg/L	12,721 NTU	-44.0 mV	22.77 ft	300.00 ml/min

1/23/2025 2:27 PM	27:24	6.90 pH	8.35 °C	1.10 mS/cm	0.76 mg/L	11,159 NTU	-47.2 mV	22.77 ft	300.00 ml/min
1/23/2025 2:29 PM	29:44	6.90 pH	8.45 °C	1.10 mS/cm	0.78 mg/L	10,414 NTU	-50.0 mV	22.77 ft	300.00 ml/min
1/23/2025 2:32 PM	32:04	6.89 pH	8.34 °C	1.10 mS/cm	0.51 mg/L	9,594.2 NTU	-51.9 mV	22.77 ft	300.00 ml/min
1/23/2025 2:34 PM	34:24	6.90 pH	8.08 °C	1.10 mS/cm	0.48 mg/L	8,160.4 NTU	-54.2 mV	22.77 ft	300.00 ml/min
1/23/2025 2:36 PM	36:44	6.90 pH	8.41 °C	1.10 mS/cm	0.43 mg/L	8,243.1 NTU	-56.8 mV	22.77 ft	300.00 ml/min
1/23/2025 2:39 PM	39:04	6.90 pH	9.04 °C	1.10 mS/cm	0.43 mg/L	7,334.0 NTU	-59.6 mV	22.77 ft	300.00 ml/min
1/23/2025 2:41 PM	41:24	6.90 pH	8.81 °C	1.09 mS/cm	0.42 mg/L	6,743.5 NTU	-61.2 mV	22.77 ft	300.00 ml/min
1/23/2025 2:43 PM	43:44	6.91 pH	7.99 °C	1.09 mS/cm	0.42 mg/L	6,018.3 NTU	-62.5 mV	22.77 ft	300.00 ml/min
1/23/2025 2:46 PM	46:04	6.90 pH	8.40 °C	1.10 mS/cm	0.43 mg/L	5,837.4 NTU	-64.1 mV	22.77 ft	300.00 ml/min
1/23/2025 2:48 PM	48:24	6.90 pH	7.87 °C	1.09 mS/cm	0.39 mg/L	5,787.4 NTU	-64.9 mV	22.77 ft	300.00 ml/min
1/23/2025 2:50 PM	50:44	6.90 pH	7.97 °C	1.09 mS/cm	0.44 mg/L	5,075.6 NTU	-66.4 mV	22.77 ft	300.00 ml/min
1/23/2025 2:53 PM	53:04	6.89 pH	8.76 °C	1.09 mS/cm	0.39 mg/L	4,959.4 NTU	-68.5 mV	22.77 ft	300.00 ml/min
1/23/2025 2:55 PM	55:24	6.90 pH	8.36 °C	1.09 mS/cm	0.37 mg/L	4,306.3 NTU	-69.8 mV	22.77 ft	300.00 ml/min
1/23/2025 2:57 PM	57:44	6.90 pH	8.33 °C	1.09 mS/cm	0.36 mg/L	3,880.6 NTU	-71.3 mV	22.77 ft	300.00 ml/min
1/23/2025 3:00 PM	01:00:04	6.91 pH	8.13 °C	1.09 mS/cm	0.36 mg/L	3,625.7 NTU	-72.3 mV	22.77 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW227D-GW-0125	

Low-Flow Test Report:

Test Date / Time: 1/22/2025 5:40:46 PM
Project: WSEC MW-307D
Operator Name: Brooke Wasson

Location Name: MW-307D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 12.1 ft** **Total Depth: 27.1 ft** **Initial Depth to Water: 17.31 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.1 ft** **Pump Intake From TOC: 25.1 ft** **Estimated Total Volume Pumped: 9673.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.04 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 897294**

Test Notes:
Sampled 01/23/25 0825

Weather Conditions:
33 degrees F overcast

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
1/22/2025 5:40 PM	00:00	7.33 pH	9.64 °C	0.92 mS/cm	7.39 mg/L	501.76 NTU	63.3 mV	17.31 ft	200.00 ml/min
1/22/2025 5:41 PM	01:11	7.08 pH	11.01 °C	0.88 mS/cm	5.56 mg/L	7,848.8 NTU	61.9 mV	17.31 ft	200.00 ml/min
1/22/2025 5:43 PM	02:22	7.33 pH	10.12 °C	0.83 mS/cm	9.06 mg/L	12,622 NTU	66.4 mV	17.31 ft	200.00 ml/min
1/22/2025 5:44 PM	03:45	6.93 pH	9.48 °C	0.88 mS/cm	8.14 mg/L	7,735.1 NTU	68.4 mV	17.31 ft	200.00 ml/min
1/22/2025 5:45 PM	04:56	6.93 pH	10.65 °C	0.88 mS/cm	5.11 mg/L	4,080.7 NTU	67.5 mV	17.31 ft	200.00 ml/min
1/22/2025 5:46 PM	06:07	6.48 pH	8.95 °C	0.00 mS/cm	7.69 mg/L	107.93 NTU	85.0 mV	17.31 ft	200.00 ml/min
1/22/2025 5:48 PM	08:08	7.01 pH	10.24 °C	0.88 mS/cm	6.43 mg/L	3,906.1 NTU	69.9 mV	17.35 ft	200.00 ml/min
1/22/2025 5:50 PM	09:19	6.91 pH	11.23 °C	0.88 mS/cm	4.98 mg/L	3,401.7 NTU	69.4 mV	17.35 ft	200.00 ml/min
1/22/2025 5:51 PM	10:30	6.92 pH	11.26 °C	0.88 mS/cm	5.24 mg/L	2,986.4 NTU	69.0 mV	17.35 ft	200.00 ml/min
1/22/2025 5:52 PM	11:41	6.94 pH	11.30 °C	0.88 mS/cm	5.35 mg/L	2,566.0 NTU	68.3 mV	17.35 ft	200.00 ml/min
1/22/2025 5:53 PM	12:52	6.94 pH	11.40 °C	0.88 mS/cm	5.28 mg/L	2,433.6 NTU	67.7 mV	17.35 ft	200.00 ml/min

1/22/2025 5:54 PM	14:03	6.95 pH	11.44 °C	0.88 mS/cm	5.26 mg/L	2,216.0 NTU	67.2 mV	17.35 ft	200.00 ml/min
1/22/2025 5:56 PM	15:14	6.96 pH	11.46 °C	0.88 mS/cm	5.21 mg/L	1,547.0 NTU	66.9 mV	17.35 ft	200.00 ml/min
1/22/2025 5:57 PM	16:25	6.96 pH	11.47 °C	0.88 mS/cm	5.15 mg/L	1,108.7 NTU	66.7 mV	17.35 ft	200.00 ml/min
1/22/2025 5:58 PM	17:36	6.97 pH	11.42 °C	0.88 mS/cm	5.11 mg/L	1,097.9 NTU	66.5 mV	17.35 ft	200.00 ml/min
1/22/2025 5:59 PM	18:47	6.97 pH	11.40 °C	0.88 mS/cm	5.05 mg/L	909.26 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:00 PM	19:58	6.98 pH	11.25 °C	0.88 mS/cm	5.04 mg/L	1,895.9 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:01 PM	21:09	6.98 pH	11.12 °C	0.88 mS/cm	4.99 mg/L	2,227.4 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:03 PM	22:20	6.98 pH	11.14 °C	0.88 mS/cm	4.97 mg/L	1,432.0 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:04 PM	23:31	6.98 pH	11.24 °C	0.88 mS/cm	4.91 mg/L	986.42 NTU	66.4 mV	17.35 ft	200.00 ml/min
1/22/2025 6:05 PM	24:42	6.98 pH	11.18 °C	0.88 mS/cm	4.91 mg/L	706.06 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:06 PM	25:53	6.98 pH	11.38 °C	0.88 mS/cm	4.85 mg/L	570.28 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:07 PM	27:04	6.98 pH	11.33 °C	0.88 mS/cm	4.81 mg/L	382.26 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:09 PM	28:15	6.99 pH	11.24 °C	0.88 mS/cm	4.79 mg/L	356.42 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:10 PM	29:26	6.99 pH	11.03 °C	0.88 mS/cm	4.75 mg/L	202.50 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:11 PM	30:37	6.99 pH	11.06 °C	0.88 mS/cm	4.79 mg/L	218.21 NTU	66.3 mV	17.35 ft	200.00 ml/min
1/22/2025 6:12 PM	31:48	6.99 pH	11.31 °C	0.88 mS/cm	4.74 mg/L	189.33 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:13 PM	32:59	6.99 pH	11.16 °C	0.88 mS/cm	4.68 mg/L	135.28 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:14 PM	34:10	6.99 pH	11.18 °C	0.88 mS/cm	4.57 mg/L	124.27 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:16 PM	35:21	6.99 pH	11.24 °C	0.88 mS/cm	4.48 mg/L	71.95 NTU	66.2 mV	17.35 ft	200.00 ml/min
1/22/2025 6:17 PM	36:32	6.99 pH	11.20 °C	0.88 mS/cm	4.44 mg/L	76.00 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:18 PM	37:43	7.00 pH	11.15 °C	0.88 mS/cm	4.41 mg/L	50.77 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:19 PM	38:54	7.00 pH	11.15 °C	0.88 mS/cm	4.38 mg/L	55.95 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:20 PM	40:05	6.99 pH	11.23 °C	0.88 mS/cm	4.28 mg/L	50.54 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:22 PM	41:16	7.00 pH	11.21 °C	0.88 mS/cm	4.24 mg/L	42.69 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:23 PM	42:27	7.00 pH	11.20 °C	0.88 mS/cm	4.23 mg/L	23.95 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:24 PM	43:38	7.00 pH	11.16 °C	0.88 mS/cm	4.16 mg/L	66.52 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:25 PM	44:49	7.00 pH	11.15 °C	0.88 mS/cm	4.13 mg/L	21.26 NTU	66.1 mV	17.35 ft	200.00 ml/min
1/22/2025 6:26 PM	46:00	7.00 pH	11.10 °C	0.88 mS/cm	4.05 mg/L	19.06 NTU	66.0 mV	17.35 ft	200.00 ml/min
1/22/2025 6:27 PM	47:11	7.00 pH	11.39 °C	0.88 mS/cm	3.99 mg/L	21.92 NTU	65.9 mV	17.35 ft	200.00 ml/min

1/22/2025 6:29 PM	48:22	7.00 pH	11.48 °C	0.88 mS/cm	4.05 mg/L	10.55 NTU	65.9 mV	17.35 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW307D-GW-0125	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 1:32:05 PM
Project: WSEC MW-105
Operator Name: Brooke Wasson

Location Name: MW-105 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 25.3 ft** **Total Depth: 40.6 ft** **Initial Depth to Water: 16.45 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 20.64 ft** **Pump Intake From TOC: 22.5 ft** **Estimated Total Volume Pumped: 10193.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1425
Collected dup 03

Weather Conditions:
53 degrees F cloudy breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 1:32 PM	00:00	7.12 pH	13.09 °C	1.24 mS/cm	2.34 mg/L	28.95 NTU	-18.0 mV	16.45 ft	200.00 ml/min
4/2/2025 1:34 PM	02:19	6.82 pH	12.99 °C	1.21 mS/cm	0.98 mg/L	18.47 NTU	-4.8 mV	16.47 ft	200.00 ml/min
4/2/2025 1:36 PM	04:38	6.72 pH	12.92 °C	1.21 mS/cm	1.05 mg/L	47.45 NTU	0.9 mV	16.47 ft	200.00 ml/min
4/2/2025 1:39 PM	06:57	6.70 pH	12.87 °C	1.04 mS/cm	1.15 mg/L	95.43 NTU	2.4 mV	16.47 ft	200.00 ml/min
4/2/2025 1:41 PM	09:16	6.69 pH	12.85 °C	0.99 mS/cm	1.11 mg/L	89.81 NTU	2.7 mV	16.47 ft	200.00 ml/min
4/2/2025 1:43 PM	11:35	6.67 pH	12.91 °C	1.06 mS/cm	1.02 mg/L	78.97 NTU	2.7 mV	16.47 ft	200.00 ml/min
4/2/2025 1:45 PM	13:54	6.72 pH	12.90 °C	0.99 mS/cm	1.13 mg/L	76.18 NTU	2.5 mV	16.47 ft	200.00 ml/min
4/2/2025 1:48 PM	16:13	6.69 pH	12.96 °C	1.05 mS/cm	1.26 mg/L	83.19 NTU	2.5 mV	16.47 ft	200.00 ml/min
4/2/2025 1:50 PM	18:32	6.68 pH	13.01 °C	1.23 mS/cm	1.13 mg/L	107.19 NTU	2.2 mV	16.47 ft	200.00 ml/min
4/2/2025 1:52 PM	20:51	6.67 pH	13.09 °C	1.16 mS/cm	1.34 mg/L	18.40 NTU	0.3 mV	16.47 ft	200.00 ml/min
4/2/2025 1:55 PM	23:10	6.67 pH	13.13 °C	1.07 mS/cm	1.33 mg/L	12.76 NTU	-0.2 mV	16.47 ft	200.00 ml/min

4/2/2025 1:57 PM	25:29	6.63 pH	13.09 °C	1.09 mS/cm	1.32 mg/L	11.00 NTU	-1.4 mV	16.47 ft	200.00 ml/min
4/2/2025 1:59 PM	27:48	6.62 pH	12.99 °C	1.07 mS/cm	1.18 mg/L	9.92 NTU	-1.9 mV	16.47 ft	200.00 ml/min
4/2/2025 2:02 PM	30:07	6.65 pH	12.99 °C	1.05 mS/cm	1.23 mg/L	8.12 NTU	-2.6 mV	16.47 ft	200.00 ml/min
4/2/2025 2:04 PM	32:26	6.64 pH	13.01 °C	1.05 mS/cm	1.14 mg/L	11.07 NTU	-3.3 mV	16.47 ft	200.00 ml/min
4/2/2025 2:06 PM	34:45	6.64 pH	12.99 °C	1.01 mS/cm	1.20 mg/L	12.34 NTU	-3.8 mV	16.47 ft	200.00 ml/min
4/2/2025 2:09 PM	37:04	6.65 pH	12.89 °C	1.11 mS/cm	0.87 mg/L	2.27 NTU	-4.5 mV	16.47 ft	200.00 ml/min
4/2/2025 2:11 PM	39:23	6.60 pH	12.94 °C	1.18 mS/cm	0.43 mg/L	0.00 NTU	-5.0 mV	16.47 ft	200.00 ml/min
4/2/2025 2:13 PM	41:42	6.64 pH	12.96 °C	1.10 mS/cm	0.53 mg/L	0.00 NTU	-5.2 mV	16.47 ft	200.00 ml/min
4/2/2025 2:16 PM	44:01	6.62 pH	13.05 °C	1.10 mS/cm	0.42 mg/L	0.00 NTU	-5.7 mV	16.47 ft	200.00 ml/min
4/2/2025 2:18 PM	46:20	6.62 pH	13.04 °C	0.94 mS/cm	0.56 mg/L	0.00 NTU	-6.1 mV	16.47 ft	200.00 ml/min
4/2/2025 2:20 PM	48:39	6.62 pH	13.09 °C	0.94 mS/cm	0.48 mg/L	0.00 NTU	-6.9 mV	16.47 ft	200.00 ml/min
4/2/2025 2:23 PM	50:58	6.59 pH	13.06 °C	0.95 mS/cm	0.38 mg/L	0.00 NTU	-7.6 mV	16.47 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW105-GW-0425	
DP03-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 2:42:04 PM
Project: WSEC MW-108
Operator Name: Brooke Wasson

Location Name: MW-108 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 11 ft** **Top of Screen: 25.4 ft** **Total Depth: 26.4 ft** **Initial Depth to Water: 16.81 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.45 ft** **Pump Intake From TOC: 23.3 ft** **Estimated Total Volume Pumped: 1166.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0.93 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1450

Weather Conditions:
54 degrees F cloudy breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 2:42 PM	00:00	6.88 pH	13.52 °C	1.15 mS/cm	4.47 mg/L	20.22 NTU	-22.3 mV	17.20 ft	200.00 ml/min
4/2/2025 2:44 PM	02:20	6.72 pH	13.33 °C	1.17 mS/cm	0.47 mg/L	5.96 NTU	-83.8 mV	17.40 ft	100.00 ml/min
4/2/2025 2:46 PM	04:40	6.70 pH	13.33 °C	1.16 mS/cm	0.32 mg/L	0.55 NTU	-107.1 mV	17.70 ft	100.00 ml/min
4/2/2025 2:49 PM	07:00	6.68 pH	13.38 °C	1.17 mS/cm	0.29 mg/L	0.00 NTU	-119.0 mV	17.74 ft	100.00 ml/min
4/2/2025 2:51 PM	09:20	6.70 pH	13.40 °C	1.17 mS/cm	0.22 mg/L	0.00 NTU	-126.5 mV	17.74 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW108-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/2/2025 3:49:01 PM
Project: WSEC MW-133
Operator Name: Paige Richards

Location Name: MW-133 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 18.88 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.76 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 25645 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1720

Weather Conditions:
Cloudy, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 3:49 PM	00:00	7.07 pH	14.20 °C	1.34 mS/cm	4.14 mg/L	74.40 NTU	52.3 mV	18.88 ft	300.00 ml/min
4/2/2025 3:51 PM	02:20	7.02 pH	13.82 °C	1.37 mS/cm	0.27 mg/L	543.31 NTU	-60.8 mV	18.90 ft	300.00 ml/min
4/2/2025 3:53 PM	04:40	7.01 pH	13.84 °C	1.38 mS/cm	0.18 mg/L	637.93 NTU	-93.7 mV	18.90 ft	300.00 ml/min
4/2/2025 3:56 PM	07:00	7.01 pH	13.78 °C	1.38 mS/cm	0.14 mg/L	645.88 NTU	-103.9 mV	18.90 ft	300.00 ml/min
4/2/2025 3:58 PM	09:20	7.01 pH	13.72 °C	1.37 mS/cm	0.12 mg/L	584.72 NTU	-108.1 mV	18.90 ft	300.00 ml/min
4/2/2025 4:00 PM	11:40	7.00 pH	13.82 °C	1.37 mS/cm	0.11 mg/L	402.17 NTU	-110.2 mV	18.90 ft	300.00 ml/min
4/2/2025 4:03 PM	14:00	6.99 pH	13.93 °C	1.39 mS/cm	0.11 mg/L	210.76 NTU	-111.3 mV	18.90 ft	300.00 ml/min
4/2/2025 4:05 PM	16:20	7.00 pH	13.94 °C	1.39 mS/cm	0.10 mg/L	194.21 NTU	-112.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:07 PM	18:40	7.00 pH	13.94 °C	1.39 mS/cm	0.10 mg/L	146.21 NTU	-114.3 mV	18.90 ft	300.00 ml/min
4/2/2025 4:10 PM	21:00	7.01 pH	13.91 °C	1.39 mS/cm	0.10 mg/L	158.30 NTU	-115.7 mV	18.90 ft	300.00 ml/min
4/2/2025 4:12 PM	23:20	7.01 pH	13.85 °C	1.39 mS/cm	0.09 mg/L	91.51 NTU	-116.8 mV	18.90 ft	300.00 ml/min
4/2/2025 4:14 PM	25:40	7.01 pH	13.76 °C	1.39 mS/cm	0.09 mg/L	63.53 NTU	-117.6 mV	18.90 ft	300.00 ml/min

4/2/2025 4:17 PM	28:00	7.02 pH	13.78 °C	1.39 mS/cm	0.08 mg/L	56.83 NTU	-118.6 mV	18.90 ft	300.00 ml/min
4/2/2025 4:19 PM	30:20	7.02 pH	13.77 °C	1.39 mS/cm	0.08 mg/L	49.18 NTU	-119.2 mV	18.90 ft	300.00 ml/min
4/2/2025 4:21 PM	32:40	7.02 pH	13.80 °C	1.39 mS/cm	0.08 mg/L	41.75 NTU	-119.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:24 PM	35:00	7.02 pH	13.86 °C	1.39 mS/cm	0.08 mg/L	46.08 NTU	-120.4 mV	18.90 ft	300.00 ml/min
4/2/2025 4:26 PM	37:20	7.02 pH	13.84 °C	1.39 mS/cm	0.08 mg/L	43.84 NTU	-120.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:28 PM	39:40	7.02 pH	13.77 °C	1.39 mS/cm	0.08 mg/L	65.48 NTU	-121.4 mV	18.90 ft	300.00 ml/min
4/2/2025 4:31 PM	42:00	7.02 pH	13.81 °C	1.39 mS/cm	0.08 mg/L	50.13 NTU	-121.6 mV	18.90 ft	300.00 ml/min
4/2/2025 4:33 PM	44:20	7.02 pH	13.84 °C	1.40 mS/cm	0.07 mg/L	81.35 NTU	-122.2 mV	18.90 ft	300.00 ml/min
4/2/2025 4:35 PM	46:40	7.02 pH	13.87 °C	1.40 mS/cm	0.07 mg/L	91.56 NTU	-122.6 mV	18.90 ft	300.00 ml/min
4/2/2025 4:38 PM	49:00	7.02 pH	13.84 °C	1.40 mS/cm	0.07 mg/L	56.10 NTU	-122.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:40 PM	51:20	7.02 pH	13.85 °C	1.40 mS/cm	0.07 mg/L	47.43 NTU	-123.2 mV	18.90 ft	300.00 ml/min
4/2/2025 4:42 PM	53:40	7.03 pH	13.87 °C	1.40 mS/cm	0.06 mg/L	45.91 NTU	-123.4 mV	18.90 ft	300.00 ml/min
4/2/2025 4:45 PM	56:00	7.02 pH	13.86 °C	1.40 mS/cm	0.06 mg/L	49.95 NTU	-123.5 mV	18.90 ft	300.00 ml/min
4/2/2025 4:47 PM	58:20	7.03 pH	13.87 °C	1.40 mS/cm	0.06 mg/L	55.63 NTU	-123.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:49 PM	01:00:40	7.02 pH	13.82 °C	1.40 mS/cm	0.06 mg/L	32.51 NTU	-123.9 mV	18.90 ft	300.00 ml/min
4/2/2025 4:52 PM	01:03:00	7.02 pH	13.82 °C	1.41 mS/cm	0.06 mg/L	39.85 NTU	-124.1 mV	18.90 ft	300.00 ml/min
4/2/2025 4:54 PM	01:05:20	7.02 pH	13.82 °C	1.40 mS/cm	0.06 mg/L	26.44 NTU	-124.2 mV	18.90 ft	300.00 ml/min
4/2/2025 4:56 PM	01:07:40	7.02 pH	13.87 °C	1.40 mS/cm	0.06 mg/L	20.16 NTU	-124.1 mV	18.90 ft	300.00 ml/min
4/2/2025 4:59 PM	01:10:00	7.02 pH	13.82 °C	1.41 mS/cm	0.06 mg/L	23.90 NTU	-124.3 mV	18.90 ft	300.00 ml/min
4/2/2025 5:00 PM	01:11:29	7.05 pH	13.90 °C	1.40 mS/cm	4.92 mg/L	21.00 NTU	-119.7 mV	18.90 ft	300.00 ml/min
4/2/2025 5:02 PM	01:13:49	7.02 pH	14.04 °C	1.41 mS/cm	0.13 mg/L	12.67 NTU	-120.9 mV	18.90 ft	300.00 ml/min
4/2/2025 5:05 PM	01:16:09	7.02 pH	14.38 °C	1.41 mS/cm	0.07 mg/L	13.31 NTU	-121.9 mV	18.90 ft	300.00 ml/min
4/2/2025 5:07 PM	01:18:29	7.03 pH	14.21 °C	1.41 mS/cm	0.06 mg/L	8.01 NTU	-122.6 mV	18.90 ft	300.00 ml/min
4/2/2025 5:09 PM	01:20:49	7.03 pH	14.10 °C	1.41 mS/cm	0.06 mg/L	8.09 NTU	-122.8 mV	18.90 ft	300.00 ml/min
4/2/2025 5:12 PM	01:23:09	7.03 pH	14.15 °C	1.41 mS/cm	0.06 mg/L	8.86 NTU	-123.0 mV	18.90 ft	300.00 ml/min
4/2/2025 5:14 PM	01:25:29	7.02 pH	14.08 °C	1.41 mS/cm	0.05 mg/L	4.70 NTU	-122.9 mV	18.90 ft	300.00 ml/min

Samples

Sample ID:	Description:

MW133-GW-0425	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/3/2025 9:15:20 AM
Project: WSEC MW-156D
Operator Name: Paige Richards

Location Name: MW-156D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.5 ft** **Total Depth: 31.5 ft** **Initial Depth to Water: 23.49 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.5 ft** **Pump Intake From TOC: 29.5 ft** **Estimated Total Volume Pumped: 14020 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1040

Weather Conditions:
Sunny, 39 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/3/2025 9:15 AM	00:00	7.34 pH	9.49 °C	1.31 mS/cm	9.64 mg/L	32.45 NTU	77.4 mV	23.49 ft	400.00 ml/min
4/3/2025 9:17 AM	02:18	6.84 pH	11.80 °C	1.69 mS/cm	0.60 mg/L	2,254.1 NTU	54.0 mV	23.52 ft	200.00 ml/min
4/3/2025 9:19 AM	04:36	6.82 pH	11.43 °C	1.70 mS/cm	0.27 mg/L	1,159.1 NTU	16.3 mV	23.52 ft	200.00 ml/min
4/3/2025 9:22 AM	06:54	6.83 pH	11.44 °C	1.71 mS/cm	0.21 mg/L	822.37 NTU	-11.1 mV	23.52 ft	200.00 ml/min
4/3/2025 9:24 AM	09:12	6.83 pH	11.43 °C	1.71 mS/cm	0.18 mg/L	597.33 NTU	-27.8 mV	23.52 ft	200.00 ml/min
4/3/2025 9:26 AM	11:30	6.84 pH	11.45 °C	1.71 mS/cm	0.16 mg/L	312.80 NTU	-39.0 mV	23.52 ft	200.00 ml/min
4/3/2025 9:29 AM	13:48	6.84 pH	11.35 °C	1.71 mS/cm	0.16 mg/L	222.78 NTU	-46.4 mV	23.52 ft	200.00 ml/min
4/3/2025 9:31 AM	16:06	6.84 pH	11.40 °C	1.71 mS/cm	0.16 mg/L	181.98 NTU	-51.4 mV	23.52 ft	200.00 ml/min
4/3/2025 9:33 AM	18:24	6.84 pH	11.52 °C	1.71 mS/cm	0.15 mg/L	131.91 NTU	-54.5 mV	23.52 ft	200.00 ml/min
4/3/2025 9:36 AM	20:42	6.84 pH	11.33 °C	1.71 mS/cm	0.16 mg/L	109.60 NTU	-57.5 mV	23.52 ft	200.00 ml/min
4/3/2025 9:38 AM	23:00	6.85 pH	11.16 °C	1.70 mS/cm	0.15 mg/L	109.01 NTU	-59.4 mV	23.52 ft	200.00 ml/min

4/3/2025 9:40 AM	25:18	6.85 pH	11.18 °C	1.70 mS/cm	0.15 mg/L	105.66 NTU	-60.7 mV	23.52 ft	200.00 ml/min
4/3/2025 9:44 AM	28:42	6.85 pH	11.34 °C	1.70 mS/cm	1.60 mg/L	115.24 NTU	-64.2 mV	23.52 ft	200.00 ml/min
4/3/2025 9:46 AM	31:00	6.85 pH	11.48 °C	1.70 mS/cm	0.20 mg/L	93.82 NTU	-65.1 mV	23.52 ft	200.00 ml/min
4/3/2025 9:48 AM	33:18	6.85 pH	11.61 °C	1.70 mS/cm	0.16 mg/L	76.65 NTU	-65.4 mV	23.52 ft	200.00 ml/min
4/3/2025 9:50 AM	35:36	6.85 pH	11.53 °C	1.70 mS/cm	0.16 mg/L	78.95 NTU	-65.4 mV	23.52 ft	200.00 ml/min
4/3/2025 9:53 AM	37:54	6.85 pH	11.39 °C	1.70 mS/cm	0.16 mg/L	59.44 NTU	-65.6 mV	23.52 ft	200.00 ml/min
4/3/2025 9:55 AM	40:12	6.84 pH	11.37 °C	1.70 mS/cm	0.16 mg/L	41.72 NTU	-65.2 mV	23.52 ft	200.00 ml/min
4/3/2025 9:57 AM	42:30	6.85 pH	11.49 °C	1.70 mS/cm	0.16 mg/L	27.22 NTU	-66.0 mV	23.52 ft	200.00 ml/min
4/3/2025 10:00 AM	44:48	6.85 pH	11.50 °C	1.70 mS/cm	0.16 mg/L	18.35 NTU	-66.2 mV	23.52 ft	200.00 ml/min
4/3/2025 10:02 AM	47:06	6.85 pH	11.50 °C	1.70 mS/cm	0.16 mg/L	12.39 NTU	-66.4 mV	23.52 ft	200.00 ml/min
4/3/2025 10:04 AM	49:24	6.85 pH	11.50 °C	1.70 mS/cm	0.16 mg/L	11.51 NTU	-66.5 mV	23.52 ft	200.00 ml/min
4/3/2025 10:07 AM	51:42	6.85 pH	11.60 °C	1.70 mS/cm	0.16 mg/L	13.03 NTU	-66.6 mV	23.52 ft	200.00 ml/min
4/3/2025 10:09 AM	54:00	6.85 pH	11.70 °C	1.69 mS/cm	0.16 mg/L	7.90 NTU	-66.4 mV	23.52 ft	200.00 ml/min
4/3/2025 10:11 AM	56:18	6.85 pH	11.78 °C	1.69 mS/cm	0.16 mg/L	7.83 NTU	-66.9 mV	23.52 ft	200.00 ml/min
4/3/2025 10:13 AM	58:36	6.85 pH	11.67 °C	1.69 mS/cm	0.16 mg/L	6.35 NTU	-67.0 mV	23.52 ft	200.00 ml/min
4/3/2025 10:16 AM	01:00:54	6.86 pH	11.73 °C	1.69 mS/cm	0.16 mg/L	10.33 NTU	-67.2 mV	23.52 ft	200.00 ml/min
4/3/2025 10:18 AM	01:03:12	6.86 pH	11.69 °C	1.69 mS/cm	0.16 mg/L	7.95 NTU	-67.4 mV	23.52 ft	200.00 ml/min
4/3/2025 10:20 AM	01:05:30	6.84 pH	11.83 °C	1.69 mS/cm	0.16 mg/L	5.14 NTU	-66.9 mV	23.52 ft	200.00 ml/min
4/3/2025 10:23 AM	01:07:48	6.85 pH	12.01 °C	1.69 mS/cm	0.16 mg/L	3.95 NTU	-67.7 mV	23.52 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW156D-GW-0425	1L plastic w/ nitric x2 1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 4/2/2025 4:49:42 PM
Project: WSEC MW-157
Operator Name: Brooke Wasson

Location Name: MW-157 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.3 ft** **Total Depth: 25.3 ft** **Initial Depth to Water: 21.82 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 22.1 ft** **Pump Intake From TOC: 24 ft** **Estimated Total Volume Pumped: 1400 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1655

Weather Conditions:
55 degrees f cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 4:49 PM	00:00	7.04 pH	13.22 °C	0.00 mS/cm	10.12 mg/L	0.00 NTU	-56.6 mV	21.82 ft	200.00 ml/min
4/2/2025 4:52 PM	02:20	6.99 pH	13.17 °C	0.00 mS/cm	10.00 mg/L	0.00 NTU	-46.7 mV	21.82 ft	200.00 ml/min
4/2/2025 4:54 PM	04:40	6.95 pH	13.14 °C	0.00 mS/cm	9.98 mg/L	0.00 NTU	-37.9 mV	21.82 ft	200.00 ml/min
4/2/2025 4:56 PM	07:00	6.94 pH	13.14 °C	0.00 mS/cm	9.98 mg/L	0.00 NTU	-30.1 mV	21.82 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW157-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/2/2025 5:13:27 PM
Project: WSEC MW-158
Operator Name: Brooke Wasson

Location Name: MW-158 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.35 ft** **Total Depth: 25.35 ft** **Initial Depth to Water: 20.4 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.77 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 1400 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.09 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1720

Weather Conditions:
54 degrees f partly sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 5:13 PM	00:00	7.23 pH	13.69 °C	0.00 mS/cm	9.77 mg/L	0.00 NTU	-9.8 mV	20.40 ft	200.00 ml/min
4/2/2025 5:15 PM	02:20	7.12 pH	13.62 °C	0.00 mS/cm	9.86 mg/L	0.00 NTU	-5.3 mV	20.49 ft	200.00 ml/min
4/2/2025 5:18 PM	04:40	7.10 pH	13.64 °C	0.00 mS/cm	9.73 mg/L	0.00 NTU	-1.7 mV	20.49 ft	200.00 ml/min
4/2/2025 5:20 PM	07:00	7.00 pH	13.59 °C	0.00 mS/cm	9.81 mg/L	0.00 NTU	0.9 mV	20.49 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW158-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/2/2025 5:36:44 PM
Project: WSEC MW-159
Operator Name: Brooke Wasson

Location Name: MW-159 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.3 ft** **Total Depth: 25.3 ft** **Initial Depth to Water: 20.61 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 22.26 ft** **Pump Intake From TOC: 24.1 ft** **Estimated Total Volume Pumped: 3266.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1755

Weather Conditions:
54 degrees F mostly sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 5:36 PM	00:00	7.25 pH	12.53 °C	1.02 mS/cm	9.98 mg/L	55.13 NTU	0.6 mV	20.61 ft	200.00 ml/min
4/2/2025 5:39 PM	02:20	6.86 pH	13.13 °C	1.20 mS/cm	1.41 mg/L	29.35 NTU	6.2 mV	20.61 ft	200.00 ml/min
4/2/2025 5:41 PM	04:40	6.76 pH	13.15 °C	1.20 mS/cm	0.85 mg/L	22.13 NTU	7.6 mV	20.61 ft	200.00 ml/min
4/2/2025 5:43 PM	07:00	6.73 pH	13.15 °C	1.20 mS/cm	0.73 mg/L	24.49 NTU	8.8 mV	20.61 ft	200.00 ml/min
4/2/2025 5:46 PM	09:20	6.74 pH	13.15 °C	1.12 mS/cm	0.91 mg/L	1.20 NTU	9.8 mV	20.61 ft	200.00 ml/min
4/2/2025 5:48 PM	11:40	6.68 pH	13.16 °C	1.12 mS/cm	0.53 mg/L	0.00 NTU	10.8 mV	20.61 ft	200.00 ml/min
4/2/2025 5:50 PM	14:00	6.67 pH	13.15 °C	1.12 mS/cm	0.47 mg/L	0.00 NTU	11.7 mV	20.61 ft	200.00 ml/min
4/2/2025 5:53 PM	16:20	6.67 pH	13.13 °C	1.13 mS/cm	0.41 mg/L	0.00 NTU	12.7 mV	20.61 ft	200.00 ml/min

Samples

Sample ID:	Description:

MW159-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 6:03:38 PM
Project: WSEC MW-190
Operator Name: Brooke Wasson

Location Name: MW-190 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.24 ft** **Total Depth: 27.24 ft** **Initial Depth to Water: 22.25 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.84 ft** **Pump Intake From TOC: 25.7 ft** **Estimated Total Volume Pumped: 2350 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1815

Weather Conditions:
52 degrees F cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 6:03 PM	00:00	7.13 pH	12.06 °C	1.21 mS/cm	9.11 mg/L	0.00 NTU	23.0 mV	22.31 ft	200.00 ml/min
4/2/2025 6:05 PM	02:21	6.88 pH	13.34 °C	1.14 mS/cm	0.72 mg/L	18.34 NTU	21.3 mV	22.31 ft	200.00 ml/min
4/2/2025 6:08 PM	04:42	6.91 pH	13.36 °C	1.14 mS/cm	0.51 mg/L	3.02 NTU	22.0 mV	22.31 ft	200.00 ml/min
4/2/2025 6:10 PM	07:03	6.89 pH	13.40 °C	1.14 mS/cm	0.27 mg/L	0.00 NTU	22.3 mV	22.31 ft	200.00 ml/min
4/2/2025 6:13 PM	09:24	6.86 pH	13.36 °C	1.15 mS/cm	0.23 mg/L	0.00 NTU	23.0 mV	22.31 ft	200.00 ml/min
4/2/2025 6:15 PM	11:45	6.85 pH	13.39 °C	1.15 mS/cm	0.21 mg/L	0.00 NTU	23.1 mV	22.31 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW190-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/2/2025 6:26:04 PM
Project: WSEC MW-191
Operator Name: Brooke Wasson

Location Name: MW-191 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 16.16 ft** **Total Depth: 26.16 ft** **Initial Depth to Water: 23.88 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.03 ft** **Pump Intake From TOC: 24.9 ft** **Estimated Total Volume Pumped: 1880 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1835

Weather Conditions:
52 degrees F partly sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 6:26 PM	00:00	7.16 pH	12.70 °C	1.17 mS/cm	8.51 mg/L	0.00 NTU	31.7 mV	23.88 ft	200.00 ml/min
4/2/2025 6:28 PM	02:21	6.90 pH	13.33 °C	1.14 mS/cm	0.65 mg/L	0.00 NTU	33.1 mV	23.88 ft	200.00 ml/min
4/2/2025 6:30 PM	04:42	6.87 pH	13.43 °C	1.14 mS/cm	0.36 mg/L	0.00 NTU	33.2 mV	23.88 ft	200.00 ml/min
4/2/2025 6:33 PM	07:03	6.86 pH	13.45 °C	1.15 mS/cm	0.29 mg/L	0.00 NTU	33.3 mV	23.88 ft	200.00 ml/min
4/2/2025 6:35 PM	09:24	6.85 pH	13.46 °C	1.15 mS/cm	0.28 mg/L	0.00 NTU	33.7 mV	23.88 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW191-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/2/2025 3:42:59 PM
Project: WSEC MW-227D
Operator Name: Brooke Wasson

Location Name: MW-227D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 17.65 ft** **Total Depth: 32.65 ft** **Initial Depth to Water: 23.45 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.65 ft** **Pump Intake From TOC: 30.65 ft** **Estimated Total Volume Pumped: 7330 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1620

Weather Conditions:
54 degrees F cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 3:42 PM	00:00	7.47 pH	11.43 °C	1.04 mS/cm	9.80 mg/L	63.88 NTU	-4.5 mV	23.45 ft	200.00 ml/min
4/2/2025 3:45 PM	02:20	6.98 pH	13.12 °C	1.20 mS/cm	2.26 mg/L	278.44 NTU	-68.3 mV	23.45 ft	200.00 ml/min
4/2/2025 3:47 PM	04:40	6.97 pH	12.97 °C	1.19 mS/cm	2.00 mg/L	185.85 NTU	-91.8 mV	23.45 ft	200.00 ml/min
4/2/2025 3:49 PM	07:00	6.95 pH	12.96 °C	1.18 mS/cm	2.00 mg/L	171.47 NTU	-103.3 mV	23.45 ft	200.00 ml/min
4/2/2025 3:52 PM	09:20	6.97 pH	13.00 °C	1.18 mS/cm	1.99 mg/L	167.69 NTU	-109.5 mV	23.45 ft	200.00 ml/min
4/2/2025 3:54 PM	11:37	7.03 pH	12.97 °C	0.98 mS/cm	3.36 mg/L	44.04 NTU	-112.9 mV	23.45 ft	200.00 ml/min
4/2/2025 3:55 PM	12:35	7.01 pH	12.99 °C	1.17 mS/cm	2.13 mg/L	143.44 NTU	-113.7 mV	23.45 ft	200.00 ml/min
4/2/2025 3:57 PM	14:55	6.99 pH	13.04 °C	1.18 mS/cm	3.44 mg/L	41.02 NTU	-120.3 mV	23.45 ft	200.00 ml/min
4/2/2025 3:58 PM	15:39	6.99 pH	13.20 °C	0.00 mS/cm	9.48 mg/L	0.00 NTU	-108.5 mV	23.45 ft	200.00 ml/min
4/2/2025 4:00 PM	17:59	7.12 pH	13.44 °C	0.00 mS/cm	10.06 mg/L	0.00 NTU	-104.1 mV	23.45 ft	200.00 ml/min
4/2/2025 4:03 PM	20:19	7.17 pH	13.38 °C	0.00 mS/cm	10.20 mg/L	0.00 NTU	-93.5 mV	23.45 ft	200.00 ml/min

4/2/2025 4:05 PM	22:39	7.16 pH	13.28 °C	0.00 mS/cm	3.78 mg/L	0.00 NTU	-114.3 mV	23.45 ft	200.00 ml/min
4/2/2025 4:07 PM	24:59	7.15 pH	13.22 °C	0.01 mS/cm	8.47 mg/L	0.00 NTU	-100.8 mV	23.45 ft	200.00 ml/min
4/2/2025 4:10 PM	27:19	7.14 pH	13.21 °C	0.00 mS/cm	9.11 mg/L	0.00 NTU	-85.0 mV	23.45 ft	200.00 ml/min
4/2/2025 4:12 PM	29:39	7.15 pH	13.21 °C	0.00 mS/cm	9.22 mg/L	0.00 NTU	-71.7 mV	23.45 ft	200.00 ml/min
4/2/2025 4:14 PM	31:59	7.13 pH	13.23 °C	0.00 mS/cm	9.27 mg/L	0.00 NTU	-60.0 mV	23.45 ft	200.00 ml/min
4/2/2025 4:17 PM	34:19	7.10 pH	13.22 °C	0.00 mS/cm	9.24 mg/L	0.00 NTU	-49.9 mV	23.45 ft	200.00 ml/min
4/2/2025 4:19 PM	36:39	7.10 pH	13.22 °C	0.00 mS/cm	9.23 mg/L	0.00 NTU	-40.8 mV	23.45 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW227D-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/3/2025 8:29:06 AM
Project: WSEC MW-240R
Operator Name: Paige Richards

Location Name: MW-240R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.36 ft** **Total Depth: 30.36 ft** **Initial Depth to Water: 24.75 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.7 ft** **Pump Intake From TOC: 29.6 ft** **Estimated Total Volume Pumped: 4200 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: -0.95 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 0905

Weather Conditions:
Sunny, 39 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/3/2025 8:29 AM	00:00	7.30 pH	7.75 °C	1.14 mS/cm	9.75 mg/L	9.99 NTU	74.1 mV	23.75 ft	250.00 ml/min
4/3/2025 8:31 AM	02:24	6.98 pH	11.41 °C	1.23 mS/cm	1.20 mg/L	8.50 NTU	59.4 mV	23.75 ft	250.00 ml/min
4/3/2025 8:33 AM	04:48	6.96 pH	12.04 °C	1.23 mS/cm	0.44 mg/L	2.66 NTU	52.4 mV	23.75 ft	250.00 ml/min
4/3/2025 8:36 AM	07:12	6.95 pH	11.95 °C	1.24 mS/cm	0.29 mg/L	0.16 NTU	49.2 mV	23.80 ft	250.00 ml/min
4/3/2025 8:38 AM	09:36	6.95 pH	12.08 °C	1.23 mS/cm	0.22 mg/L	0.00 NTU	46.9 mV	23.80 ft	250.00 ml/min
4/3/2025 8:41 AM	12:00	6.95 pH	11.78 °C	1.23 mS/cm	0.18 mg/L	0.07 NTU	45.5 mV	23.80 ft	250.00 ml/min
4/3/2025 8:43 AM	14:24	6.93 pH	11.80 °C	1.23 mS/cm	0.16 mg/L	0.05 NTU	45.2 mV	23.80 ft	250.00 ml/min
4/3/2025 8:45 AM	16:48	6.95 pH	11.79 °C	1.23 mS/cm	0.14 mg/L	0.00 NTU	43.2 mV	23.80 ft	250.00 ml/min

Samples

Sample ID:	Description:

MW240R-GW-0425	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1
DP04-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 5:35:57 PM
Project: WSEC MW-244
Operator Name: Paige Richards

Location Name: MW-244 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.9 ft** **Total Depth: 31.9 ft** **Initial Depth to Water: 26.95 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.82 ft** **Pump Intake From TOC: 30.7 ft** **Estimated Total Volume Pumped: 2416.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1800

Weather Conditions:
Cloudy, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 5:35 PM	00:00	6.87 pH	12.71 °C	1.09 mS/cm	4.38 mg/L	32.97 NTU	-15.9 mV	26.95 ft	200.00 ml/min
4/2/2025 5:38 PM	02:25	6.79 pH	12.85 °C	1.14 mS/cm	0.44 mg/L	15.40 NTU	-12.7 mV	27.03 ft	200.00 ml/min
4/2/2025 5:40 PM	04:50	6.78 pH	12.70 °C	1.14 mS/cm	0.23 mg/L	11.87 NTU	-11.8 mV	27.03 ft	200.00 ml/min
4/2/2025 5:43 PM	07:15	6.79 pH	12.77 °C	1.13 mS/cm	0.16 mg/L	6.26 NTU	-13.8 mV	27.03 ft	200.00 ml/min
4/2/2025 5:45 PM	09:40	6.80 pH	12.77 °C	1.12 mS/cm	0.12 mg/L	3.40 NTU	-20.2 mV	27.03 ft	200.00 ml/min
4/2/2025 5:48 PM	12:05	6.82 pH	12.73 °C	1.11 mS/cm	0.09 mg/L	2.17 NTU	-31.4 mV	27.03 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW244-GW-0425	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 4/2/2025 6:47:08 PM
Project: WSEC MW-245
Operator Name: Brooke Wasson

Location Name: MW-245 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.8 ft** **Total Depth: 33.8 ft** **Initial Depth to Water: 30.48 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.95 ft** **Pump Intake From TOC: 32.8 ft** **Estimated Total Volume Pumped: 4866.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.25 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1915
Collected MS/MSD

Weather Conditions:
52 degrees F partly sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 6:47 PM	00:00	6.95 pH	12.29 °C	1.63 mS/cm	7.32 mg/L	70.81 NTU	44.8 mV	30.73 ft	200.00 ml/min
4/2/2025 6:49 PM	02:26	6.73 pH	13.03 °C	1.67 mS/cm	1.54 mg/L	7.52 NTU	30.6 mV	30.73 ft	200.00 ml/min
4/2/2025 6:52 PM	04:52	6.70 pH	13.18 °C	0.57 mS/cm	1.71 mg/L	6.31 NTU	27.1 mV	30.73 ft	200.00 ml/min
4/2/2025 6:54 PM	07:18	6.68 pH	13.22 °C	1.35 mS/cm	2.21 mg/L	0.53 NTU	25.5 mV	30.73 ft	200.00 ml/min
4/2/2025 6:56 PM	09:44	6.65 pH	13.21 °C	1.59 mS/cm	2.03 mg/L	0.00 NTU	24.3 mV	30.73 ft	200.00 ml/min
4/2/2025 6:59 PM	12:10	6.64 pH	13.25 °C	1.16 mS/cm	1.76 mg/L	0.00 NTU	22.9 mV	30.73 ft	200.00 ml/min
4/2/2025 7:01 PM	14:36	6.63 pH	13.26 °C	1.59 mS/cm	1.55 mg/L	203.45 NTU	21.0 mV	30.73 ft	200.00 ml/min
4/2/2025 7:04 PM	17:02	6.63 pH	13.24 °C	1.45 mS/cm	1.81 mg/L	0.00 NTU	17.4 mV	30.73 ft	200.00 ml/min
4/2/2025 7:06 PM	19:28	6.63 pH	13.20 °C	1.44 mS/cm	1.14 mg/L	1.53 NTU	14.9 mV	30.73 ft	200.00 ml/min
4/2/2025 7:09 PM	21:54	6.63 pH	13.23 °C	1.44 mS/cm	1.08 mg/L	4.78 NTU	11.4 mV	30.73 ft	200.00 ml/min
4/2/2025 7:11 PM	24:20	6.61 pH	13.27 °C	1.44 mS/cm	0.93 mg/L	3.52 NTU	6.5 mV	30.73 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW245-GW-0425	
MW245-GW-0425-MS2	
MW245-GW-0425-MSD2	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 6:10:25 PM
Project: WSEC MW-246
Operator Name: Paige Richards

Location Name: MW-246 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18 ft** **Total Depth: 33 ft** **Initial Depth to Water: 30.25 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.68 ft** **Pump Intake From TOC: 32.6 ft** **Estimated Total Volume Pumped: 3406.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 175 ml/min** **Final Draw Down: 0.21 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1845

Weather Conditions:
Cloudy, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 6:10 PM	00:00	6.81 pH	12.78 °C	1.31 mS/cm	1.72 mg/L	12.31 NTU	-5.1 mV	30.25 ft	175.00 ml/min
4/2/2025 6:12 PM	02:26	6.80 pH	12.74 °C	1.32 mS/cm	0.29 mg/L	4.57 NTU	-19.6 mV	30.25 ft	175.00 ml/min
4/2/2025 6:15 PM	04:52	6.81 pH	12.64 °C	1.34 mS/cm	0.16 mg/L	1.95 NTU	-30.0 mV	30.25 ft	175.00 ml/min
4/2/2025 6:17 PM	07:18	6.83 pH	12.63 °C	1.34 mS/cm	0.12 mg/L	1.25 NTU	-42.6 mV	30.25 ft	175.00 ml/min
4/2/2025 6:20 PM	09:44	6.83 pH	12.68 °C	1.33 mS/cm	0.09 mg/L	0.89 NTU	-54.7 mV	30.25 ft	175.00 ml/min
4/2/2025 6:22 PM	12:10	6.84 pH	12.70 °C	1.31 mS/cm	0.08 mg/L	0.48 NTU	-64.1 mV	30.25 ft	175.00 ml/min
4/2/2025 6:25 PM	14:36	6.86 pH	12.70 °C	1.29 mS/cm	0.07 mg/L	0.64 NTU	-71.3 mV	30.25 ft	175.00 ml/min
4/2/2025 6:27 PM	17:02	6.86 pH	12.65 °C	1.27 mS/cm	0.06 mg/L	0.34 NTU	-76.4 mV	30.25 ft	175.00 ml/min
4/2/2025 6:29 PM	19:28	6.87 pH	12.72 °C	1.26 mS/cm	0.05 mg/L	0.39 NTU	-80.6 mV	30.46 ft	175.00 ml/min

Samples

Sample ID:	Description:

MW246-GW-0425	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 4/2/2025 6:46:14 PM
Project: WSEC MW-247
Operator Name: Paige Richards

Location Name: MW-247 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.2 ft** **Total Depth: 33.2 ft** **Initial Depth to Water: 29.2 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.46 ft** **Pump Intake From TOC: 32.3 ft** **Estimated Total Volume Pumped: 2433.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.14 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1915

Weather Conditions:
Cloudy, 54 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 6:46 PM	00:00	6.82 pH	11.32 °C	1.17 mS/cm	5.32 mg/L	15.11 NTU	-31.1 mV	29.20 ft	200.00 ml/min
4/2/2025 6:48 PM	02:26	6.88 pH	12.42 °C	1.07 mS/cm	0.99 mg/L	4.86 NTU	-28.1 mV	29.20 ft	200.00 ml/min
4/2/2025 6:51 PM	04:52	6.90 pH	12.53 °C	1.06 mS/cm	0.37 mg/L	1.33 NTU	-25.8 mV	29.20 ft	200.00 ml/min
4/2/2025 6:53 PM	07:18	6.92 pH	12.61 °C	1.05 mS/cm	0.21 mg/L	0.85 NTU	-24.3 mV	29.20 ft	200.00 ml/min
4/2/2025 6:55 PM	09:44	6.93 pH	12.61 °C	1.05 mS/cm	0.15 mg/L	0.35 NTU	-23.1 mV	29.20 ft	200.00 ml/min
4/2/2025 6:58 PM	12:10	6.93 pH	12.64 °C	1.05 mS/cm	0.13 mg/L	0.46 NTU	-22.3 mV	29.34 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW247-GW-0425	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 4/2/2025 7:49:35 PM
Project: WSEC MW-248
Operator Name: Brooke Wasson

Location Name: MW-248 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 29.1 ft** **Total Depth: 34.1 ft** **Initial Depth to Water: 29.91 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 31.24 ft** **Pump Intake From TOC: 33.1 ft** **Estimated Total Volume Pumped: 4900 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 2010

Weather Conditions:
52 degrees F sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 7:49 PM	00:00	7.00 pH	11.92 °C	0.91 mS/cm	5.90 mg/L	17.91 NTU	17.1 mV	29.91 ft	250.00 ml/min
4/2/2025 7:52 PM	02:27	6.94 pH	13.14 °C	1.17 mS/cm	0.59 mg/L	31.09 NTU	-27.1 mV	29.91 ft	250.00 ml/min
4/2/2025 7:54 PM	04:54	6.95 pH	13.18 °C	1.18 mS/cm	0.41 mg/L	22.45 NTU	-54.1 mV	29.91 ft	250.00 ml/min
4/2/2025 7:56 PM	07:21	6.64 pH	12.42 °C	0.00 mS/cm	9.39 mg/L	71.29 NTU	-78.1 mV	29.91 ft	250.00 ml/min
4/2/2025 7:59 PM	09:48	6.93 pH	13.19 °C	1.18 mS/cm	0.19 mg/L	36.94 NTU	-84.2 mV	29.91 ft	250.00 ml/min
4/2/2025 8:01 PM	12:15	6.92 pH	13.21 °C	1.18 mS/cm	0.12 mg/L	22.86 NTU	-91.9 mV	29.91 ft	250.00 ml/min
4/2/2025 8:04 PM	14:42	6.91 pH	13.22 °C	1.18 mS/cm	0.10 mg/L	13.06 NTU	-97.6 mV	29.91 ft	250.00 ml/min
4/2/2025 8:06 PM	17:09	6.94 pH	13.22 °C	1.18 mS/cm	0.10 mg/L	11.52 NTU	-101.8 mV	29.91 ft	250.00 ml/min
4/2/2025 8:09 PM	19:36	6.97 pH	13.22 °C	1.18 mS/cm	0.09 mg/L	5.99 NTU	-104.9 mV	29.91 ft	250.00 ml/min

Samples

Sample ID:	Description:

MW248-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/2/2025 3:14:00 PM
Project: WSEC MW-250
Operator Name: Brooke Wasson

Location Name: MW-250 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.8 ft** **Total Depth: 30.8 ft** **Initial Depth to Water: 26.2 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.05 ft** **Pump Intake From TOC: 28.9 ft** **Estimated Total Volume Pumped: 2400 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1530

Weather Conditions:
54 degrees F cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/2/2025 3:14 PM	00:00	6.93 pH	12.53 °C	1.38 mS/cm	7.85 mg/L	5.75 NTU	-32.4 mV	26.20 ft	200.00 ml/min
4/2/2025 3:16 PM	02:24	6.60 pH	13.63 °C	1.45 mS/cm	0.98 mg/L	4.04 NTU	-17.7 mV	26.20 ft	200.00 ml/min
4/2/2025 3:18 PM	04:48	6.56 pH	13.79 °C	1.45 mS/cm	0.40 mg/L	0.00 NTU	-12.8 mV	26.20 ft	200.00 ml/min
4/2/2025 3:21 PM	07:12	6.58 pH	13.89 °C	1.45 mS/cm	0.24 mg/L	0.00 NTU	-9.5 mV	26.20 ft	200.00 ml/min
4/2/2025 3:23 PM	09:36	6.57 pH	13.86 °C	1.44 mS/cm	0.20 mg/L	0.00 NTU	-7.6 mV	26.20 ft	200.00 ml/min
4/2/2025 3:26 PM	12:00	6.59 pH	13.84 °C	1.44 mS/cm	0.16 mg/L	0.00 NTU	-6.3 mV	26.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW250-GW-0425	

Low-Flow Test Report:

Test Date / Time: 4/1/2025 7:22:58 AM
Project: WSEC TW-1
Operator Name: Brooke Wasson

Location Name: TW-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 8 ft** **Total Depth: 18 ft** **Initial Depth to Water: 5.34 ft**	**Pump Type: QED 1.75" Portable SamplePro Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 5666.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 1.35 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 0815

Weather Conditions:
39 degrees F cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/1/2025 7:22 AM	00:00	6.84 pH	7.50 °C	1.28 mS/cm	9.99 mg/L	11.40 NTU	42.7 mV	5.34 ft	300.00 ml/min
4/1/2025 7:24 AM	01:08	6.70 pH	9.17 °C	1.25 mS/cm	5.26 mg/L	399.89 NTU	-32.5 mV	6.15 ft	200.00 ml/min
4/1/2025 7:25 AM	02:16	6.67 pH	9.69 °C	1.21 mS/cm	2.30 mg/L	1,521.2 NTU	-62.8 mV	6.15 ft	200.00 ml/min
4/1/2025 7:26 AM	03:24	6.66 pH	9.68 °C	1.20 mS/cm	1.75 mg/L	787.17 NTU	-72.9 mV	6.15 ft	200.00 ml/min
4/1/2025 7:27 AM	04:32	6.65 pH	9.70 °C	1.19 mS/cm	1.52 mg/L	337.76 NTU	-78.9 mV	6.54 ft	100.00 ml/min
4/1/2025 7:28 AM	05:40	6.66 pH	9.52 °C	1.19 mS/cm	1.70 mg/L	222.29 NTU	-81.7 mV	6.54 ft	100.00 ml/min
4/1/2025 7:29 AM	06:48	6.65 pH	9.18 °C	1.19 mS/cm	1.68 mg/L	149.43 NTU	-83.7 mV	6.54 ft	100.00 ml/min
4/1/2025 7:30 AM	07:56	6.64 pH	9.02 °C	1.20 mS/cm	1.54 mg/L	103.79 NTU	-85.2 mV	6.62 ft	100.00 ml/min
4/1/2025 7:32 AM	09:04	6.64 pH	9.00 °C	1.19 mS/cm	1.44 mg/L	97.61 NTU	-86.7 mV	6.62 ft	100.00 ml/min
4/1/2025 7:33 AM	10:12	6.64 pH	9.05 °C	1.20 mS/cm	1.40 mg/L	74.65 NTU	-87.6 mV	6.62 ft	100.00 ml/min
4/1/2025 7:34 AM	11:20	6.64 pH	9.10 °C	1.20 mS/cm	1.32 mg/L	71.11 NTU	-88.5 mV	6.62 ft	100.00 ml/min

4/1/2025 7:35 AM	12:28	6.63 pH	9.11 °C	1.20 mS/cm	1.25 mg/L	62.07 NTU	-89.2 mV	6.62 ft	100.00 ml/min
4/1/2025 7:36 AM	13:36	6.63 pH	9.09 °C	1.20 mS/cm	1.18 mg/L	54.74 NTU	-89.6 mV	6.69 ft	100.00 ml/min
4/1/2025 7:37 AM	14:44	6.62 pH	9.06 °C	1.21 mS/cm	1.12 mg/L	47.61 NTU	-90.2 mV	6.69 ft	100.00 ml/min
4/1/2025 7:38 AM	15:52	6.62 pH	9.04 °C	1.20 mS/cm	1.07 mg/L	42.66 NTU	-90.6 mV	6.69 ft	100.00 ml/min
4/1/2025 7:39 AM	17:00	6.61 pH	9.00 °C	1.20 mS/cm	1.02 mg/L	42.74 NTU	-90.9 mV	6.69 ft	100.00 ml/min
4/1/2025 7:41 AM	18:08	6.61 pH	9.02 °C	1.21 mS/cm	0.94 mg/L	41.60 NTU	-91.3 mV	6.69 ft	100.00 ml/min
4/1/2025 7:42 AM	19:16	6.62 pH	8.96 °C	1.20 mS/cm	0.88 mg/L	40.97 NTU	-91.7 mV	6.69 ft	100.00 ml/min
4/1/2025 7:43 AM	20:24	6.61 pH	8.98 °C	1.20 mS/cm	0.85 mg/L	37.10 NTU	-92.1 mV	6.69 ft	100.00 ml/min
4/1/2025 7:44 AM	21:32	6.60 pH	9.02 °C	1.20 mS/cm	0.82 mg/L	37.26 NTU	-92.4 mV	6.69 ft	100.00 ml/min
4/1/2025 7:45 AM	22:40	6.59 pH	9.03 °C	1.20 mS/cm	0.77 mg/L	36.88 NTU	-92.6 mV	6.69 ft	100.00 ml/min
4/1/2025 7:46 AM	23:48	6.59 pH	9.05 °C	1.20 mS/cm	0.73 mg/L	42.61 NTU	-93.0 mV	6.69 ft	100.00 ml/min
4/1/2025 7:47 AM	24:56	6.59 pH	9.00 °C	1.20 mS/cm	0.71 mg/L	44.22 NTU	-93.2 mV	6.69 ft	100.00 ml/min
4/1/2025 7:49 AM	26:04	6.61 pH	8.79 °C	0.01 mS/cm	8.96 mg/L	0.00 NTU	-100.8 mV	6.69 ft	100.00 ml/min
4/1/2025 7:50 AM	27:12	6.60 pH	9.00 °C	1.48 mS/cm	1.72 mg/L	16.80 NTU	-92.9 mV	6.69 ft	100.00 ml/min
4/1/2025 7:51 AM	28:20	6.58 pH	9.04 °C	1.47 mS/cm	0.56 mg/L	13.29 NTU	-93.1 mV	6.69 ft	100.00 ml/min
4/1/2025 7:52 AM	29:28	6.58 pH	8.98 °C	1.47 mS/cm	0.41 mg/L	12.22 NTU	-93.2 mV	6.69 ft	100.00 ml/min
4/1/2025 7:53 AM	30:36	6.58 pH	8.97 °C	1.47 mS/cm	0.38 mg/L	12.70 NTU	-93.6 mV	6.69 ft	100.00 ml/min
4/1/2025 7:54 AM	31:44	6.58 pH	9.01 °C	1.48 mS/cm	0.34 mg/L	10.15 NTU	-94.2 mV	6.69 ft	100.00 ml/min
4/1/2025 7:55 AM	32:52	6.57 pH	9.05 °C	1.47 mS/cm	0.33 mg/L	11.44 NTU	-94.9 mV	6.69 ft	100.00 ml/min
4/1/2025 7:56 AM	34:00	6.57 pH	9.03 °C	1.48 mS/cm	0.31 mg/L	9.87 NTU	-95.6 mV	6.69 ft	100.00 ml/min
4/1/2025 7:58 AM	35:08	6.58 pH	9.01 °C	1.48 mS/cm	0.30 mg/L	8.36 NTU	-96.1 mV	6.69 ft	100.00 ml/min
4/1/2025 7:59 AM	36:16	6.58 pH	8.99 °C	1.48 mS/cm	0.30 mg/L	9.49 NTU	-96.6 mV	6.69 ft	100.00 ml/min
4/1/2025 8:00 AM	37:24	6.59 pH	9.04 °C	1.48 mS/cm	0.30 mg/L	10.63 NTU	-97.2 mV	6.69 ft	100.00 ml/min
4/1/2025 8:01 AM	38:32	6.60 pH	9.07 °C	1.48 mS/cm	0.29 mg/L	10.04 NTU	-97.7 mV	6.69 ft	100.00 ml/min
4/1/2025 8:02 AM	39:40	6.59 pH	9.02 °C	1.48 mS/cm	0.27 mg/L	11.05 NTU	-98.1 mV	6.69 ft	100.00 ml/min
4/1/2025 8:03 AM	40:48	6.58 pH	9.00 °C	1.48 mS/cm	0.27 mg/L	11.55 NTU	-98.5 mV	6.69 ft	100.00 ml/min
4/1/2025 8:04 AM	41:56	6.57 pH	9.05 °C	1.48 mS/cm	0.26 mg/L	10.63 NTU	-98.9 mV	6.69 ft	100.00 ml/min
4/1/2025 8:06 AM	43:04	6.58 pH	9.04 °C	1.48 mS/cm	0.26 mg/L	10.60 NTU	-99.3 mV	6.69 ft	100.00 ml/min
4/1/2025 8:07 AM	44:12	6.57 pH	9.09 °C	1.48 mS/cm	0.25 mg/L	9.65 NTU	-99.7 mV	6.69 ft	100.00 ml/min

4/1/2025 8:08 AM	45:20	6.59 pH	9.08 °C	1.48 mS/cm	0.24 mg/L	9.92 NTU	-100.2 mV	6.69 ft	100.00 ml/min
4/1/2025 8:09 AM	46:28	6.59 pH	9.05 °C	1.48 mS/cm	0.24 mg/L	7.32 NTU	-100.5 mV	6.69 ft	100.00 ml/min
4/1/2025 8:10 AM	47:36	6.59 pH	9.08 °C	1.48 mS/cm	0.23 mg/L	7.07 NTU	-100.9 mV	6.69 ft	100.00 ml/min
4/1/2025 8:11 AM	48:44	6.60 pH	9.05 °C	1.48 mS/cm	0.23 mg/L	7.32 NTU	-101.2 mV	6.69 ft	100.00 ml/min
4/1/2025 8:12 AM	49:52	6.58 pH	9.10 °C	1.48 mS/cm	0.22 mg/L	8.36 NTU	-101.6 mV	6.69 ft	100.00 ml/min
4/1/2025 8:13 AM	51:00	6.58 pH	9.12 °C	1.49 mS/cm	0.22 mg/L	5.92 NTU	-101.9 mV	6.69 ft	100.00 ml/min

Samples

Sample ID:	Description:
TW1-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/31/2025 5:06:05 PM
Project: WSEC TW-2
Operator Name: Brooke Wasson

Location Name: TW-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 8 ft** **Total Depth: 18 ft** **Initial Depth to Water: 11.58 ft**	**Pump Type: QED 1.75" Portable SamplePro Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 8840 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 75 ml/min** **Final Draw Down: 1.52 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1900

Weather Conditions:
51 degrees F sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
3/31/2025 5:06 PM	00:00	7.17 pH	15.06 °C	0.00 mS/cm	7.30 mg/L	37.21 NTU	16.3 mV	11.58 ft	200.00 ml/min
3/31/2025 5:07 PM	01:08	6.95 pH	12.44 °C	1.50 mS/cm	3.21 mg/L	286.52 NTU	-15.7 mV	12.16 ft	200.00 ml/min
3/31/2025 5:08 PM	02:16	6.96 pH	12.41 °C	1.52 mS/cm	1.67 mg/L	306.74 NTU	-21.3 mV	12.25 ft	200.00 ml/min
3/31/2025 5:09 PM	03:24	6.95 pH	12.06 °C	1.53 mS/cm	1.55 mg/L	208.18 NTU	-24.2 mV	12.25 ft	100.00 ml/min
3/31/2025 5:10 PM	04:32	6.94 pH	12.45 °C	1.51 mS/cm	1.47 mg/L	158.73 NTU	-26.6 mV	12.25 ft	100.00 ml/min
3/31/2025 5:11 PM	05:40	6.91 pH	12.54 °C	1.50 mS/cm	1.64 mg/L	136.86 NTU	-27.7 mV	12.25 ft	100.00 ml/min
3/31/2025 5:12 PM	06:48	6.94 pH	12.60 °C	1.50 mS/cm	1.62 mg/L	113.64 NTU	-28.6 mV	12.42 ft	75.00 ml/min
3/31/2025 5:14 PM	07:56	6.94 pH	12.87 °C	1.50 mS/cm	1.60 mg/L	109.83 NTU	-29.0 mV	12.42 ft	75.00 ml/min
3/31/2025 5:15 PM	09:04	6.91 pH	13.10 °C	1.51 mS/cm	1.79 mg/L	108.41 NTU	-28.7 mV	12.42 ft	75.00 ml/min
3/31/2025 5:16 PM	10:12	6.93 pH	12.81 °C	1.50 mS/cm	1.81 mg/L	101.97 NTU	-29.6 mV	12.42 ft	75.00 ml/min
3/31/2025 5:17 PM	11:20	6.91 pH	13.07 °C	1.50 mS/cm	1.82 mg/L	102.07 NTU	-29.2 mV	12.59 ft	75.00 ml/min

3/31/2025 5:18 PM	12:28	6.94 pH	12.74 °C	1.63 mS/cm	1.89 mg/L	100.55 NTU	-29.8 mV	12.59 ft	75.00 ml/min
3/31/2025 5:19 PM	13:36	6.92 pH	12.67 °C	1.63 mS/cm	1.74 mg/L	100.48 NTU	-29.4 mV	12.59 ft	75.00 ml/min
3/31/2025 5:20 PM	14:44	6.92 pH	12.53 °C	1.63 mS/cm	1.72 mg/L	97.68 NTU	-30.4 mV	12.59 ft	75.00 ml/min
3/31/2025 5:21 PM	15:52	6.92 pH	12.61 °C	1.63 mS/cm	1.81 mg/L	97.58 NTU	-31.0 mV	12.59 ft	75.00 ml/min
3/31/2025 5:23 PM	17:00	6.91 pH	12.61 °C	1.63 mS/cm	1.81 mg/L	92.83 NTU	-32.4 mV	12.59 ft	75.00 ml/min
3/31/2025 5:24 PM	18:08	6.91 pH	12.65 °C	1.63 mS/cm	1.71 mg/L	94.34 NTU	-33.5 mV	12.59 ft	75.00 ml/min
3/31/2025 5:25 PM	19:16	6.92 pH	12.73 °C	1.63 mS/cm	1.67 mg/L	95.43 NTU	-35.0 mV	12.59 ft	75.00 ml/min
3/31/2025 5:26 PM	20:24	7.00 pH	14.11 °C	0.00 mS/cm	8.33 mg/L	0.00 NTU	-25.9 mV	12.59 ft	75.00 ml/min
3/31/2025 5:27 PM	21:32	6.94 pH	13.03 °C	1.63 mS/cm	4.86 mg/L	55.17 NTU	-30.3 mV	12.59 ft	75.00 ml/min
3/31/2025 5:28 PM	22:40	6.89 pH	12.84 °C	1.64 mS/cm	1.84 mg/L	54.11 NTU	-37.1 mV	12.59 ft	75.00 ml/min
3/31/2025 5:29 PM	23:48	6.90 pH	12.97 °C	1.64 mS/cm	1.69 mg/L	55.06 NTU	-40.5 mV	12.59 ft	75.00 ml/min
3/31/2025 5:31 PM	24:56	6.90 pH	12.83 °C	1.64 mS/cm	1.92 mg/L	51.13 NTU	-42.5 mV	12.59 ft	75.00 ml/min
3/31/2025 5:32 PM	26:04	6.90 pH	12.78 °C	1.63 mS/cm	1.89 mg/L	50.34 NTU	-44.4 mV	12.59 ft	75.00 ml/min
3/31/2025 5:33 PM	27:12	6.90 pH	12.69 °C	1.64 mS/cm	1.84 mg/L	62.74 NTU	-45.9 mV	12.59 ft	75.00 ml/min
3/31/2025 5:34 PM	28:20	6.89 pH	12.75 °C	1.63 mS/cm	1.63 mg/L	47.70 NTU	-47.6 mV	13.10 ft	75.00 ml/min
3/31/2025 5:35 PM	29:28	6.89 pH	12.65 °C	1.64 mS/cm	1.44 mg/L	45.45 NTU	-49.5 mV	13.10 ft	75.00 ml/min
3/31/2025 5:36 PM	30:36	6.91 pH	12.73 °C	1.63 mS/cm	1.51 mg/L	45.34 NTU	-51.3 mV	13.10 ft	75.00 ml/min
3/31/2025 5:37 PM	31:44	6.89 pH	12.78 °C	1.64 mS/cm	1.93 mg/L	43.03 NTU	-52.5 mV	13.10 ft	75.00 ml/min
3/31/2025 5:38 PM	32:52	6.91 pH	12.91 °C	1.64 mS/cm	1.93 mg/L	40.11 NTU	-53.6 mV	13.10 ft	75.00 ml/min
3/31/2025 5:40 PM	34:00	6.91 pH	12.66 °C	1.64 mS/cm	1.79 mg/L	38.18 NTU	-55.3 mV	13.10 ft	75.00 ml/min
3/31/2025 5:41 PM	35:08	6.86 pH	12.61 °C	1.63 mS/cm	1.72 mg/L	37.53 NTU	-55.0 mV	13.10 ft	75.00 ml/min
3/31/2025 5:42 PM	36:16	6.89 pH	12.55 °C	1.64 mS/cm	1.80 mg/L	34.54 NTU	-58.0 mV	13.10 ft	75.00 ml/min
3/31/2025 5:43 PM	37:24	6.87 pH	12.63 °C	1.64 mS/cm	1.87 mg/L	38.17 NTU	-57.5 mV	13.10 ft	75.00 ml/min
3/31/2025 5:44 PM	38:32	6.97 pH	12.43 °C	1.63 mS/cm	1.87 mg/L	35.77 NTU	-60.0 mV	13.10 ft	75.00 ml/min
3/31/2025 5:45 PM	39:40	6.96 pH	12.46 °C	1.63 mS/cm	1.92 mg/L	32.92 NTU	-60.2 mV	13.10 ft	75.00 ml/min
3/31/2025 5:46 PM	40:48	6.99 pH	12.45 °C	1.63 mS/cm	1.80 mg/L	30.73 NTU	-63.1 mV	13.10 ft	75.00 ml/min
3/31/2025 5:48 PM	41:56	6.97 pH	12.48 °C	1.63 mS/cm	1.87 mg/L	28.42 NTU	-63.1 mV	13.10 ft	75.00 ml/min
3/31/2025 5:49 PM	43:04	6.99 pH	12.38 °C	1.63 mS/cm	2.09 mg/L	28.53 NTU	-64.8 mV	13.10 ft	75.00 ml/min
3/31/2025 5:50 PM	44:12	6.98 pH	12.31 °C	1.63 mS/cm	1.64 mg/L	28.51 NTU	-65.8 mV	13.10 ft	75.00 ml/min

3/31/2025 5:51 PM	45:20	6.98 pH	12.35 °C	1.63 mS/cm	1.47 mg/L	27.67 NTU	-67.2 mV	13.10 ft	75.00 ml/min
3/31/2025 5:52 PM	46:28	6.96 pH	12.33 °C	1.63 mS/cm	1.36 mg/L	25.48 NTU	-68.1 mV	13.10 ft	75.00 ml/min
3/31/2025 5:53 PM	47:36	6.98 pH	12.36 °C	1.63 mS/cm	1.37 mg/L	26.25 NTU	-69.2 mV	13.10 ft	75.00 ml/min
3/31/2025 5:54 PM	48:44	6.98 pH	12.25 °C	1.64 mS/cm	1.38 mg/L	24.54 NTU	-70.0 mV	13.10 ft	75.00 ml/min
3/31/2025 5:55 PM	49:52	6.95 pH	12.32 °C	1.63 mS/cm	1.37 mg/L	24.71 NTU	-71.1 mV	13.10 ft	75.00 ml/min
3/31/2025 5:57 PM	51:00	6.93 pH	12.26 °C	1.64 mS/cm	1.35 mg/L	25.71 NTU	-71.9 mV	13.10 ft	75.00 ml/min
3/31/2025 5:58 PM	52:08	6.98 pH	12.29 °C	1.63 mS/cm	1.26 mg/L	26.84 NTU	-72.6 mV	13.10 ft	75.00 ml/min
3/31/2025 5:59 PM	53:16	6.99 pH	12.23 °C	1.64 mS/cm	1.25 mg/L	25.01 NTU	-73.6 mV	13.10 ft	75.00 ml/min
3/31/2025 6:00 PM	54:24	6.99 pH	12.26 °C	1.63 mS/cm	1.26 mg/L	23.25 NTU	-74.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:01 PM	55:32	6.94 pH	12.21 °C	1.64 mS/cm	1.21 mg/L	21.06 NTU	-75.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:02 PM	56:40	6.94 pH	12.27 °C	1.63 mS/cm	1.22 mg/L	23.02 NTU	-76.3 mV	13.10 ft	75.00 ml/min
3/31/2025 6:03 PM	57:48	6.92 pH	12.25 °C	1.64 mS/cm	1.24 mg/L	23.99 NTU	-77.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:05 PM	58:56	6.95 pH	12.33 °C	1.64 mS/cm	1.21 mg/L	21.98 NTU	-77.8 mV	13.10 ft	75.00 ml/min
3/31/2025 6:06 PM	01:00:04	6.94 pH	12.33 °C	1.64 mS/cm	1.27 mg/L	20.55 NTU	-78.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:07 PM	01:01:12	6.94 pH	12.40 °C	1.64 mS/cm	1.25 mg/L	21.67 NTU	-79.4 mV	13.10 ft	75.00 ml/min
3/31/2025 6:08 PM	01:02:20	6.92 pH	12.41 °C	1.64 mS/cm	1.29 mg/L	18.70 NTU	-80.3 mV	13.10 ft	75.00 ml/min
3/31/2025 6:09 PM	01:03:28	6.94 pH	12.45 °C	1.64 mS/cm	1.28 mg/L	20.20 NTU	-80.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:10 PM	01:04:36	6.92 pH	12.37 °C	1.64 mS/cm	1.33 mg/L	18.05 NTU	-81.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:11 PM	01:05:44	6.91 pH	12.38 °C	1.63 mS/cm	1.28 mg/L	19.04 NTU	-81.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:12 PM	01:06:52	6.90 pH	12.31 °C	1.64 mS/cm	1.20 mg/L	18.04 NTU	-82.2 mV	13.10 ft	75.00 ml/min
3/31/2025 6:14 PM	01:08:00	6.92 pH	12.31 °C	1.63 mS/cm	1.19 mg/L	15.47 NTU	-83.0 mV	13.10 ft	75.00 ml/min
3/31/2025 6:15 PM	01:09:08	6.90 pH	12.29 °C	1.64 mS/cm	1.28 mg/L	15.85 NTU	-83.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:16 PM	01:10:16	6.92 pH	12.24 °C	1.63 mS/cm	1.25 mg/L	16.27 NTU	-84.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:17 PM	01:11:24	6.88 pH	12.29 °C	1.64 mS/cm	1.26 mg/L	16.15 NTU	-85.0 mV	13.10 ft	75.00 ml/min
3/31/2025 6:18 PM	01:12:32	6.87 pH	12.23 °C	1.63 mS/cm	1.25 mg/L	19.74 NTU	-85.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:19 PM	01:13:40	6.89 pH	12.26 °C	1.64 mS/cm	1.19 mg/L	14.66 NTU	-86.4 mV	13.10 ft	75.00 ml/min
3/31/2025 6:20 PM	01:14:48	6.90 pH	12.19 °C	1.64 mS/cm	1.24 mg/L	15.03 NTU	-86.8 mV	13.10 ft	75.00 ml/min
3/31/2025 6:22 PM	01:15:56	6.90 pH	12.21 °C	1.64 mS/cm	1.23 mg/L	15.66 NTU	-87.4 mV	13.10 ft	75.00 ml/min
3/31/2025 6:23 PM	01:17:04	6.89 pH	12.13 °C	1.64 mS/cm	1.22 mg/L	14.30 NTU	-88.1 mV	13.10 ft	75.00 ml/min

3/31/2025 6:24 PM	01:18:12	6.88 pH	12.16 °C	1.64 mS/cm	1.20 mg/L	14.84 NTU	-88.8 mV	13.10 ft	75.00 ml/min
3/31/2025 6:25 PM	01:19:20	6.88 pH	12.12 °C	1.64 mS/cm	1.20 mg/L	13.99 NTU	-89.4 mV	13.10 ft	75.00 ml/min
3/31/2025 6:26 PM	01:20:28	6.90 pH	12.14 °C	1.64 mS/cm	1.17 mg/L	15.31 NTU	-90.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:27 PM	01:21:36	6.88 pH	12.09 °C	1.64 mS/cm	1.23 mg/L	15.20 NTU	-90.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:28 PM	01:22:44	6.88 pH	12.11 °C	1.64 mS/cm	1.19 mg/L	14.93 NTU	-91.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:29 PM	01:23:52	6.86 pH	12.03 °C	1.64 mS/cm	1.17 mg/L	14.76 NTU	-91.6 mV	13.10 ft	75.00 ml/min
3/31/2025 6:31 PM	01:25:00	6.85 pH	12.06 °C	1.64 mS/cm	1.26 mg/L	15.48 NTU	-91.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:32 PM	01:26:08	6.87 pH	11.90 °C	1.64 mS/cm	1.27 mg/L	14.50 NTU	-92.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:33 PM	01:27:16	6.89 pH	11.94 °C	1.64 mS/cm	1.18 mg/L	15.11 NTU	-92.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:34 PM	01:28:24	6.88 pH	11.98 °C	1.64 mS/cm	1.26 mg/L	14.71 NTU	-92.9 mV	13.10 ft	75.00 ml/min
3/31/2025 6:35 PM	01:29:32	6.89 pH	12.07 °C	1.64 mS/cm	1.32 mg/L	16.07 NTU	-93.4 mV	13.10 ft	75.00 ml/min
3/31/2025 6:36 PM	01:30:40	6.90 pH	12.10 °C	1.64 mS/cm	1.29 mg/L	16.09 NTU	-94.2 mV	13.10 ft	75.00 ml/min
3/31/2025 6:37 PM	01:31:48	6.91 pH	12.12 °C	1.63 mS/cm	1.23 mg/L	16.71 NTU	-95.2 mV	13.10 ft	75.00 ml/min
3/31/2025 6:39 PM	01:32:56	6.92 pH	12.06 °C	1.63 mS/cm	1.34 mg/L	17.12 NTU	-95.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:40 PM	01:34:04	6.91 pH	12.06 °C	1.63 mS/cm	1.36 mg/L	18.51 NTU	-96.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:41 PM	01:35:12	6.91 pH	12.01 °C	1.64 mS/cm	1.30 mg/L	19.63 NTU	-96.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:42 PM	01:36:20	6.94 pH	12.00 °C	1.64 mS/cm	1.35 mg/L	21.07 NTU	-96.7 mV	13.10 ft	75.00 ml/min
3/31/2025 6:43 PM	01:37:28	6.96 pH	12.02 °C	1.64 mS/cm	1.45 mg/L	20.11 NTU	-96.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:44 PM	01:38:36	6.99 pH	11.98 °C	1.64 mS/cm	1.55 mg/L	22.16 NTU	-96.3 mV	13.10 ft	75.00 ml/min
3/31/2025 6:45 PM	01:39:44	6.99 pH	11.97 °C	1.64 mS/cm	1.42 mg/L	22.91 NTU	-96.5 mV	13.10 ft	75.00 ml/min
3/31/2025 6:46 PM	01:40:52	7.00 pH	11.93 °C	1.64 mS/cm	1.41 mg/L	26.31 NTU	-96.8 mV	13.10 ft	75.00 ml/min
3/31/2025 6:48 PM	01:42:00	7.01 pH	11.93 °C	1.64 mS/cm	1.34 mg/L	28.37 NTU	-97.3 mV	13.10 ft	75.00 ml/min
3/31/2025 6:49 PM	01:43:08	7.01 pH	11.87 °C	1.64 mS/cm	1.32 mg/L	31.06 NTU	-97.9 mV	13.10 ft	75.00 ml/min
3/31/2025 6:50 PM	01:44:16	7.01 pH	11.89 °C	1.64 mS/cm	1.37 mg/L	32.22 NTU	-98.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:51 PM	01:45:24	6.99 pH	11.81 °C	0.88 mS/cm	1.36 mg/L	220.76 NTU	-99.0 mV	13.10 ft	75.00 ml/min
3/31/2025 6:52 PM	01:46:32	7.06 pH	12.22 °C	0.00 mS/cm	4.98 mg/L	2.55 NTU	-89.1 mV	13.10 ft	75.00 ml/min
3/31/2025 6:53 PM	01:47:40	7.01 pH	11.73 °C	1.56 mS/cm	2.04 mg/L	1.12 NTU	-92.8 mV	13.10 ft	75.00 ml/min
3/31/2025 6:54 PM	01:48:48	7.00 pH	11.73 °C	1.56 mS/cm	1.53 mg/L	0.96 NTU	-94.3 mV	13.10 ft	75.00 ml/min
3/31/2025 6:56 PM	01:49:56	7.00 pH	11.70 °C	1.56 mS/cm	1.44 mg/L	0.23 NTU	-95.4 mV	13.10 ft	75.00 ml/min

3/31/2025 6:57 PM	01:51:04	6.99 pH	11.71 °C	1.56 mS/cm	1.40 mg/L	1.27 NTU	-95.9 mV	13.10 ft	75.00 ml/min

Samples

Sample ID:	Description:
TW2-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 4/1/2025 8:50:32 AM
Project: WSEC MW-34
Operator Name: Brooke Wasson

Location Name: MW-34 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 11.57 ft** **Total Depth: 18 ft** **Initial Depth to Water: 10.38 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 23920 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1055

Weather Conditions:
42 degrees F cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
4/1/2025 8:50 AM	00:00	6.74 pH	10.83 °C	0.74 mS/cm	4.30 mg/L	1,102.9 NTU	-11.9 mV	10.38 ft	200.00 ml/min
4/1/2025 8:51 AM	01:09	6.65 pH	10.80 °C	0.76 mS/cm	1.04 mg/L	1,848.6 NTU	-9.7 mV	10.38 ft	200.00 ml/min
4/1/2025 8:52 AM	02:18	6.62 pH	10.49 °C	0.76 mS/cm	0.47 mg/L	2,472.3 NTU	-7.7 mV	10.38 ft	200.00 ml/min
4/1/2025 8:53 AM	03:27	6.60 pH	10.43 °C	0.76 mS/cm	0.34 mg/L	2,685.6 NTU	-6.5 mV	10.38 ft	200.00 ml/min
4/1/2025 8:55 AM	04:36	6.59 pH	10.40 °C	0.76 mS/cm	0.30 mg/L	2,356.7 NTU	-5.3 mV	10.38 ft	200.00 ml/min
4/1/2025 8:56 AM	05:45	6.58 pH	10.38 °C	0.77 mS/cm	0.29 mg/L	4,481.2 NTU	-4.2 mV	10.38 ft	200.00 ml/min
4/1/2025 8:57 AM	06:54	6.56 pH	10.34 °C	0.76 mS/cm	0.28 mg/L	4,837.3 NTU	-3.2 mV	10.38 ft	200.00 ml/min
4/1/2025 8:58 AM	08:03	6.55 pH	10.34 °C	0.75 mS/cm	0.26 mg/L	4,872.9 NTU	-2.3 mV	10.38 ft	200.00 ml/min
4/1/2025 8:59 AM	09:12	6.55 pH	10.36 °C	0.75 mS/cm	0.27 mg/L	4,797.4 NTU	-1.4 mV	10.38 ft	200.00 ml/min
4/1/2025 9:00 AM	10:21	6.56 pH	10.37 °C	0.74 mS/cm	0.25 mg/L	3,904.5 NTU	-0.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:02 AM	11:30	6.56 pH	10.36 °C	0.72 mS/cm	0.26 mg/L	3,842.8 NTU	-0.1 mV	10.38 ft	200.00 ml/min

4/1/2025 9:03 AM	12:39	6.57 pH	10.37 °C	0.71 mS/cm	0.26 mg/L	1,936.3 NTU	0.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:04 AM	13:48	6.57 pH	10.47 °C	0.70 mS/cm	0.25 mg/L	1,155.9 NTU	0.8 mV	10.38 ft	200.00 ml/min
4/1/2025 9:05 AM	14:57	6.59 pH	10.47 °C	0.69 mS/cm	0.26 mg/L	995.52 NTU	1.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:06 AM	16:06	6.60 pH	10.53 °C	0.68 mS/cm	0.27 mg/L	627.94 NTU	2.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:07 AM	17:15	6.60 pH	10.57 °C	0.68 mS/cm	0.22 mg/L	543.19 NTU	2.5 mV	10.38 ft	200.00 ml/min
4/1/2025 9:08 AM	18:24	6.60 pH	10.57 °C	0.67 mS/cm	0.23 mg/L	537.28 NTU	3.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:10 AM	19:33	6.60 pH	10.59 °C	0.67 mS/cm	0.29 mg/L	498.63 NTU	4.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:11 AM	20:42	6.61 pH	10.59 °C	0.66 mS/cm	0.25 mg/L	533.39 NTU	4.0 mV	10.38 ft	200.00 ml/min
4/1/2025 9:12 AM	21:51	6.59 pH	10.57 °C	0.92 mS/cm	0.20 mg/L	609.82 NTU	7.5 mV	10.38 ft	200.00 ml/min
4/1/2025 9:13 AM	23:00	6.71 pH	10.19 °C	0.88 mS/cm	4.57 mg/L	290.76 NTU	6.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:14 AM	24:09	6.60 pH	10.45 °C	0.86 mS/cm	0.78 mg/L	285.79 NTU	6.3 mV	10.38 ft	200.00 ml/min
4/1/2025 9:15 AM	25:18	6.59 pH	10.42 °C	0.86 mS/cm	0.42 mg/L	249.45 NTU	6.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:16 AM	26:27	6.60 pH	10.41 °C	0.86 mS/cm	0.44 mg/L	229.26 NTU	6.3 mV	10.38 ft	200.00 ml/min
4/1/2025 9:18 AM	27:36	6.60 pH	10.43 °C	0.85 mS/cm	0.40 mg/L	237.19 NTU	6.4 mV	10.38 ft	200.00 ml/min
4/1/2025 9:19 AM	28:45	6.60 pH	10.41 °C	0.85 mS/cm	0.37 mg/L	310.49 NTU	5.9 mV	10.38 ft	200.00 ml/min
4/1/2025 9:20 AM	29:54	6.60 pH	10.40 °C	0.90 mS/cm	0.36 mg/L	279.50 NTU	5.4 mV	10.38 ft	200.00 ml/min
4/1/2025 9:21 AM	31:03	6.60 pH	10.46 °C	0.89 mS/cm	0.38 mg/L	310.98 NTU	5.4 mV	10.38 ft	200.00 ml/min
4/1/2025 9:22 AM	32:12	6.60 pH	10.47 °C	0.88 mS/cm	0.36 mg/L	589.44 NTU	5.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:23 AM	33:21	6.59 pH	10.48 °C	0.72 mS/cm	0.38 mg/L	696.97 NTU	4.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:25 AM	34:30	6.58 pH	10.50 °C	0.72 mS/cm	0.26 mg/L	612.58 NTU	4.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:26 AM	35:39	6.57 pH	10.53 °C	0.72 mS/cm	0.22 mg/L	406.30 NTU	3.3 mV	10.38 ft	200.00 ml/min
4/1/2025 9:27 AM	36:48	6.57 pH	10.55 °C	0.72 mS/cm	0.22 mg/L	284.82 NTU	2.6 mV	10.38 ft	200.00 ml/min
4/1/2025 9:28 AM	37:57	6.57 pH	10.49 °C	0.72 mS/cm	0.23 mg/L	281.75 NTU	2.0 mV	10.38 ft	200.00 ml/min
4/1/2025 9:29 AM	39:06	6.58 pH	10.53 °C	0.72 mS/cm	0.20 mg/L	273.97 NTU	1.6 mV	10.38 ft	200.00 ml/min
4/1/2025 9:30 AM	40:15	6.58 pH	10.56 °C	0.72 mS/cm	0.19 mg/L	270.62 NTU	1.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:31 AM	41:24	6.58 pH	10.52 °C	0.71 mS/cm	0.21 mg/L	302.15 NTU	1.0 mV	10.38 ft	200.00 ml/min
4/1/2025 9:33 AM	42:33	6.58 pH	10.49 °C	0.71 mS/cm	0.21 mg/L	321.39 NTU	0.4 mV	10.38 ft	200.00 ml/min
4/1/2025 9:34 AM	43:42	6.59 pH	10.53 °C	0.71 mS/cm	0.28 mg/L	259.67 NTU	0.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:35 AM	44:51	6.60 pH	10.57 °C	0.70 mS/cm	0.34 mg/L	259.38 NTU	-0.3 mV	10.38 ft	200.00 ml/min

4/1/2025 9:36 AM	46:00	6.61 pH	10.64 °C	0.70 mS/cm	0.38 mg/L	235.22 NTU	-1.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:37 AM	47:09	6.60 pH	10.64 °C	0.69 mS/cm	0.39 mg/L	323.03 NTU	-1.3 mV	10.38 ft	200.00 ml/min
4/1/2025 9:38 AM	48:18	6.62 pH	10.61 °C	0.70 mS/cm	0.38 mg/L	342.56 NTU	-2.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:39 AM	49:27	6.61 pH	10.64 °C	0.70 mS/cm	0.42 mg/L	287.99 NTU	-2.5 mV	10.38 ft	200.00 ml/min
4/1/2025 9:41 AM	50:36	6.61 pH	10.63 °C	0.70 mS/cm	0.36 mg/L	195.23 NTU	-2.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:42 AM	51:45	6.62 pH	10.56 °C	0.70 mS/cm	0.39 mg/L	184.35 NTU	-3.5 mV	10.38 ft	200.00 ml/min
4/1/2025 9:43 AM	52:54	6.60 pH	10.55 °C	0.70 mS/cm	0.36 mg/L	186.02 NTU	-3.6 mV	10.38 ft	200.00 ml/min
4/1/2025 9:44 AM	54:03	6.61 pH	10.57 °C	0.70 mS/cm	0.34 mg/L	224.87 NTU	-4.9 mV	10.38 ft	200.00 ml/min
4/1/2025 9:45 AM	55:12	6.60 pH	10.54 °C	0.71 mS/cm	0.32 mg/L	250.82 NTU	-5.0 mV	10.38 ft	200.00 ml/min
4/1/2025 9:46 AM	56:21	6.61 pH	10.56 °C	0.70 mS/cm	0.30 mg/L	191.39 NTU	-6.0 mV	10.38 ft	200.00 ml/min
4/1/2025 9:48 AM	57:30	6.61 pH	10.58 °C	0.70 mS/cm	0.32 mg/L	214.48 NTU	-6.3 mV	10.38 ft	200.00 ml/min
4/1/2025 9:49 AM	58:39	6.61 pH	10.60 °C	0.69 mS/cm	0.35 mg/L	196.28 NTU	-6.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:50 AM	59:48	6.62 pH	10.58 °C	0.69 mS/cm	0.41 mg/L	232.38 NTU	-7.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:51 AM	01:00:57	6.61 pH	10.58 °C	0.69 mS/cm	0.45 mg/L	253.30 NTU	-6.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:52 AM	01:02:06	6.59 pH	10.66 °C	0.69 mS/cm	0.38 mg/L	353.35 NTU	-6.2 mV	10.38 ft	200.00 ml/min
4/1/2025 9:53 AM	01:03:15	6.65 pH	10.68 °C	0.85 mS/cm	3.26 mg/L	161.75 NTU	-10.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:54 AM	01:04:24	6.61 pH	10.72 °C	0.85 mS/cm	0.69 mg/L	179.60 NTU	-9.9 mV	10.38 ft	200.00 ml/min
4/1/2025 9:56 AM	01:05:33	6.61 pH	10.65 °C	0.85 mS/cm	0.46 mg/L	149.60 NTU	-11.1 mV	10.38 ft	200.00 ml/min
4/1/2025 9:57 AM	01:06:42	6.59 pH	10.64 °C	0.85 mS/cm	0.46 mg/L	148.13 NTU	-10.6 mV	10.38 ft	200.00 ml/min
4/1/2025 9:58 AM	01:07:51	6.61 pH	10.68 °C	0.85 mS/cm	0.37 mg/L	181.11 NTU	-11.7 mV	10.38 ft	200.00 ml/min
4/1/2025 9:59 AM	01:09:00	6.58 pH	10.66 °C	0.86 mS/cm	0.42 mg/L	262.03 NTU	-11.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:00 AM	01:10:09	6.59 pH	10.69 °C	0.85 mS/cm	0.41 mg/L	175.45 NTU	-11.7 mV	10.38 ft	200.00 ml/min
4/1/2025 10:01 AM	01:11:18	6.60 pH	10.73 °C	0.85 mS/cm	0.48 mg/L	117.15 NTU	-12.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:02 AM	01:12:27	6.59 pH	10.76 °C	0.85 mS/cm	0.43 mg/L	94.72 NTU	-12.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:04 AM	01:13:36	6.60 pH	10.71 °C	0.85 mS/cm	0.42 mg/L	87.77 NTU	-13.7 mV	10.38 ft	200.00 ml/min
4/1/2025 10:05 AM	01:14:45	6.59 pH	10.71 °C	0.85 mS/cm	0.41 mg/L	79.05 NTU	-13.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:06 AM	01:15:54	6.58 pH	10.78 °C	0.85 mS/cm	0.40 mg/L	98.30 NTU	-14.0 mV	10.38 ft	200.00 ml/min
4/1/2025 10:07 AM	01:17:03	6.58 pH	10.73 °C	0.84 mS/cm	0.40 mg/L	97.81 NTU	-14.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:08 AM	01:18:12	6.55 pH	10.74 °C	0.84 mS/cm	0.40 mg/L	100.87 NTU	-13.9 mV	10.38 ft	200.00 ml/min

4/1/2025 10:09 AM	01:19:21	6.58 pH	10.71 °C	0.84 mS/cm	0.42 mg/L	77.14 NTU	-15.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:11 AM	01:20:30	6.56 pH	10.73 °C	0.85 mS/cm	0.41 mg/L	81.04 NTU	-15.0 mV	10.38 ft	200.00 ml/min
4/1/2025 10:12 AM	01:21:39	6.57 pH	10.76 °C	0.84 mS/cm	0.42 mg/L	73.02 NTU	-16.4 mV	10.38 ft	200.00 ml/min
4/1/2025 10:13 AM	01:22:48	6.56 pH	10.77 °C	0.84 mS/cm	0.41 mg/L	72.18 NTU	-16.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:14 AM	01:23:57	6.54 pH	10.80 °C	0.84 mS/cm	0.42 mg/L	69.47 NTU	-16.4 mV	10.38 ft	200.00 ml/min
4/1/2025 10:15 AM	01:25:06	6.57 pH	10.82 °C	0.84 mS/cm	0.43 mg/L	63.14 NTU	-17.8 mV	10.38 ft	200.00 ml/min
4/1/2025 10:16 AM	01:26:15	6.56 pH	10.78 °C	0.84 mS/cm	0.46 mg/L	68.36 NTU	-17.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:17 AM	01:27:24	6.58 pH	10.75 °C	0.84 mS/cm	0.46 mg/L	62.03 NTU	-18.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:19 AM	01:28:33	6.56 pH	10.67 °C	0.84 mS/cm	0.45 mg/L	58.12 NTU	-18.4 mV	10.38 ft	200.00 ml/min
4/1/2025 10:20 AM	01:29:42	6.55 pH	10.73 °C	0.84 mS/cm	0.45 mg/L	61.72 NTU	-18.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:21 AM	01:30:51	6.56 pH	10.76 °C	0.84 mS/cm	0.45 mg/L	74.37 NTU	-19.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:22 AM	01:32:00	6.54 pH	10.76 °C	0.84 mS/cm	0.44 mg/L	85.41 NTU	-19.0 mV	10.38 ft	200.00 ml/min
4/1/2025 10:23 AM	01:33:09	6.57 pH	10.81 °C	0.84 mS/cm	0.41 mg/L	70.36 NTU	-20.4 mV	10.38 ft	200.00 ml/min
4/1/2025 10:24 AM	01:34:18	6.55 pH	10.76 °C	0.84 mS/cm	0.38 mg/L	62.06 NTU	-19.8 mV	10.38 ft	200.00 ml/min
4/1/2025 10:25 AM	01:35:27	6.55 pH	10.81 °C	0.84 mS/cm	0.40 mg/L	65.41 NTU	-20.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:27 AM	01:36:36	6.56 pH	10.81 °C	0.84 mS/cm	0.41 mg/L	72.95 NTU	-20.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:28 AM	01:37:45	6.52 pH	10.80 °C	0.81 mS/cm	0.44 mg/L	85.96 NTU	-19.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:29 AM	01:38:54	6.55 pH	10.79 °C	0.81 mS/cm	0.36 mg/L	71.41 NTU	-21.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:30 AM	01:40:03	6.54 pH	10.84 °C	0.68 mS/cm	0.43 mg/L	67.68 NTU	-20.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:31 AM	01:41:12	6.56 pH	10.86 °C	0.68 mS/cm	0.44 mg/L	78.05 NTU	-21.8 mV	10.38 ft	200.00 ml/min
4/1/2025 10:32 AM	01:42:21	6.62 pH	10.77 °C	0.84 mS/cm	4.93 mg/L	70.79 NTU	-23.9 mV	10.38 ft	200.00 ml/min
4/1/2025 10:34 AM	01:43:30	6.54 pH	10.79 °C	0.84 mS/cm	0.79 mg/L	61.62 NTU	-24.1 mV	10.38 ft	200.00 ml/min
4/1/2025 10:35 AM	01:44:39	6.56 pH	10.79 °C	0.84 mS/cm	0.44 mg/L	51.42 NTU	-25.7 mV	10.38 ft	200.00 ml/min
4/1/2025 10:36 AM	01:45:48	6.54 pH	10.78 °C	0.84 mS/cm	0.44 mg/L	59.52 NTU	-24.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:37 AM	01:46:57	6.56 pH	10.82 °C	0.84 mS/cm	0.37 mg/L	51.81 NTU	-25.7 mV	10.38 ft	200.00 ml/min
4/1/2025 10:38 AM	01:48:06	6.55 pH	10.86 °C	0.84 mS/cm	0.32 mg/L	46.91 NTU	-24.9 mV	10.38 ft	200.00 ml/min
4/1/2025 10:39 AM	01:49:15	6.53 pH	10.89 °C	0.84 mS/cm	0.32 mg/L	44.09 NTU	-24.3 mV	10.38 ft	200.00 ml/min
4/1/2025 10:40 AM	01:50:24	6.55 pH	10.90 °C	0.83 mS/cm	0.34 mg/L	52.70 NTU	-25.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:42 AM	01:51:33	6.52 pH	10.93 °C	0.84 mS/cm	0.32 mg/L	54.36 NTU	-23.9 mV	10.38 ft	200.00 ml/min

4/1/2025 10:43 AM	01:52:42	6.55 pH	10.91 °C	0.83 mS/cm	0.34 mg/L	45.97 NTU	-25.2 mV	10.38 ft	200.00 ml/min
4/1/2025 10:44 AM	01:53:51	6.54 pH	10.94 °C	0.83 mS/cm	0.30 mg/L	43.26 NTU	-24.6 mV	10.38 ft	200.00 ml/min
4/1/2025 10:45 AM	01:55:00	6.53 pH	10.97 °C	0.83 mS/cm	0.28 mg/L	58.58 NTU	-24.5 mV	10.38 ft	200.00 ml/min
4/1/2025 10:46 AM	01:56:09	6.55 pH	10.96 °C	0.83 mS/cm	0.32 mg/L	48.44 NTU	-25.1 mV	10.38 ft	200.00 ml/min
4/1/2025 10:47 AM	01:57:18	6.52 pH	10.93 °C	0.83 mS/cm	0.28 mg/L	43.90 NTU	-23.9 mV	10.38 ft	200.00 ml/min
4/1/2025 10:48 AM	01:58:27	6.54 pH	10.92 °C	0.84 mS/cm	0.27 mg/L	57.92 NTU	-25.4 mV	10.38 ft	200.00 ml/min
4/1/2025 10:50 AM	01:59:36	5.91 pH	10.71 °C	0.00 mS/cm	1.65 mg/L	0.00 NTU	-20.8 mV	10.38 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW34-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/31/2025 4:24:30 PM
Project: WSEC MW-307
Operator Name: Brooke Wasson

Location Name: MW-307 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 91.4 ft** **Total Depth: 96.4 ft** **Initial Depth to Water: 18.15 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 17.5 ft** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 1183.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1630

Weather Conditions:
50 degrees F sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
3/31/2025 4:24 PM	00:00	7.16 pH	13.23 °C	0.85 mS/cm	6.81 mg/L	0.70 NTU	52.0 mV	18.15 ft	200.00 ml/min
3/31/2025 4:25 PM	01:11	6.94 pH	13.04 °C	0.87 mS/cm	7.61 mg/L	3.49 NTU	47.2 mV	18.15 ft	200.00 ml/min
3/31/2025 4:26 PM	02:22	6.89 pH	13.07 °C	0.88 mS/cm	7.30 mg/L	1.78 NTU	43.6 mV	18.15 ft	200.00 ml/min
3/31/2025 4:28 PM	03:33	6.87 pH	13.00 °C	0.88 mS/cm	7.15 mg/L	0.00 NTU	40.8 mV	18.15 ft	200.00 ml/min
3/31/2025 4:29 PM	04:44	6.87 pH	13.00 °C	0.88 mS/cm	7.06 mg/L	0.00 NTU	40.4 mV	18.15 ft	200.00 ml/min
3/31/2025 4:30 PM	05:55	6.85 pH	13.07 °C	0.88 mS/cm	6.96 mg/L	0.00 NTU	41.0 mV	18.15 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW307-GW-0425	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 3/31/2025 3:16:23 PM
Project: WSEC MW-307D
Operator Name: Brooke Wasson

Location Name: MW-307D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 12.1 ft** **Total Depth: 27.1 ft** **Initial Depth to Water: 18.25 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.1 ft** **Pump Intake From TOC: 25.1 ft** **Estimated Total Volume Pumped: 4260 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 1194835**

Test Notes:
Sampled 1540
Collected MS/MSD 3

Weather Conditions:
50 degrees f sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
3/31/2025 3:16 PM	00:00	7.00 pH	13.44 °C	0.74 mS/cm	1.89 mg/L	49.69 NTU	39.6 mV	18.25 ft	200.00 ml/min
3/31/2025 3:17 PM	01:11	6.97 pH	13.35 °C	0.88 mS/cm	1.93 mg/L	36.87 NTU	33.2 mV	18.25 ft	200.00 ml/min
3/31/2025 3:18 PM	02:22	6.91 pH	13.35 °C	0.88 mS/cm	1.97 mg/L	28.98 NTU	32.3 mV	18.25 ft	200.00 ml/min
3/31/2025 3:19 PM	03:33	6.93 pH	13.41 °C	0.86 mS/cm	1.85 mg/L	22.18 NTU	28.6 mV	18.25 ft	200.00 ml/min
3/31/2025 3:21 PM	04:44	6.92 pH	13.34 °C	0.86 mS/cm	1.78 mg/L	20.68 NTU	27.8 mV	18.25 ft	200.00 ml/min
3/31/2025 3:22 PM	05:55	6.92 pH	13.27 °C	0.84 mS/cm	1.72 mg/L	14.97 NTU	27.7 mV	18.25 ft	200.00 ml/min
3/31/2025 3:23 PM	07:06	6.86 pH	13.37 °C	0.84 mS/cm	1.75 mg/L	93.92 NTU	29.9 mV	18.25 ft	200.00 ml/min
3/31/2025 3:24 PM	08:17	6.92 pH	13.36 °C	0.82 mS/cm	1.82 mg/L	6.02 NTU	26.5 mV	18.25 ft	200.00 ml/min
3/31/2025 3:25 PM	09:28	6.92 pH	13.31 °C	0.84 mS/cm	1.75 mg/L	3.12 NTU	26.7 mV	18.25 ft	200.00 ml/min
3/31/2025 3:27 PM	10:39	6.97 pH	13.26 °C	0.75 mS/cm	1.85 mg/L	5.07 NTU	27.1 mV	18.25 ft	200.00 ml/min

3/31/2025 3:28 PM	11:50	6.96 pH	13.29 °C	0.80 mS/cm	1.91 mg/L	9.26 NTU	26.4 mV	18.25 ft	200.00 ml/min
3/31/2025 3:29 PM	13:01	6.95 pH	13.31 °C	0.68 mS/cm	1.92 mg/L	4.96 NTU	26.7 mV	18.25 ft	200.00 ml/min
3/31/2025 3:30 PM	14:12	6.93 pH	13.30 °C	0.83 mS/cm	1.91 mg/L	25.50 NTU	27.4 mV	18.25 ft	200.00 ml/min
3/31/2025 3:31 PM	15:23	6.94 pH	13.34 °C	0.75 mS/cm	2.11 mg/L	9.03 NTU	28.2 mV	18.25 ft	200.00 ml/min
3/31/2025 3:32 PM	16:34	6.95 pH	13.34 °C	0.78 mS/cm	2.12 mg/L	6.60 NTU	27.2 mV	18.25 ft	200.00 ml/min
3/31/2025 3:34 PM	17:45	6.91 pH	13.29 °C	0.83 mS/cm	2.06 mg/L	47.60 NTU	27.5 mV	18.25 ft	200.00 ml/min
3/31/2025 3:35 PM	18:56	6.92 pH	13.25 °C	0.68 mS/cm	2.02 mg/L	6.25 NTU	28.7 mV	18.25 ft	200.00 ml/min
3/31/2025 3:36 PM	20:07	6.88 pH	13.29 °C	0.83 mS/cm	1.94 mg/L	1.89 NTU	30.2 mV	18.25 ft	200.00 ml/min
3/31/2025 3:37 PM	21:18	6.93 pH	13.27 °C	0.83 mS/cm	1.92 mg/L	3.17 NTU	28.3 mV	18.25 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW307D-GW-0425	
MW307D-GW-0425-MS3	
MW307D-GW-0425-MSD 3	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 11:00:45 AM
Project: WSEC MW-105
Operator Name: Brooke Wasson

Location Name: MW-105 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 25.3 ft** **Total Depth: 40.6 ft** **Initial Depth to Water: 14.39 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 20.64 ft** **Pump Intake From TOC: 22.5 ft** **Estimated Total Volume Pumped: 13705 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1150

Weather Conditions:
81 degrees F sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 11:00 AM	00:00	6.97 pH	16.96 °C	1.14 mS/cm	6.13 mg/L	5.18 NTU	-11.5 mV	14.39 ft	300.00 ml/min
6/11/2025 11:03 AM	02:19	6.96 pH	15.34 °C	1.13 mS/cm	1.08 mg/L	33.72 NTU	-9.4 mV	14.45 ft	300.00 ml/min
6/11/2025 11:05 AM	04:38	6.99 pH	15.03 °C	1.11 mS/cm	0.47 mg/L	40.14 NTU	-13.5 mV	14.45 ft	300.00 ml/min
6/11/2025 11:07 AM	06:18	7.05 pH	15.67 °C	0.01 mS/cm	2.83 mg/L	158.04 NTU	-28.4 mV	14.45 ft	300.00 ml/min
6/11/2025 11:09 AM	08:37	7.02 pH	15.24 °C	1.09 mS/cm	0.62 mg/L	175.65 NTU	-30.8 mV	14.45 ft	300.00 ml/min
6/11/2025 11:11 AM	10:56	7.01 pH	15.15 °C	1.10 mS/cm	0.28 mg/L	128.51 NTU	-30.0 mV	14.45 ft	300.00 ml/min
6/11/2025 11:14 AM	13:15	7.08 pH	15.17 °C	0.95 mS/cm	0.25 mg/L	83.33 NTU	-38.0 mV	14.45 ft	300.00 ml/min
6/11/2025 11:16 AM	15:34	7.02 pH	15.34 °C	0.50 mS/cm	0.22 mg/L	80.49 NTU	-43.3 mV	14.45 ft	300.00 ml/min
6/11/2025 11:18 AM	17:53	7.04 pH	15.27 °C	1.21 mS/cm	0.26 mg/L	52.01 NTU	-44.9 mV	14.45 ft	300.00 ml/min
6/11/2025 11:20 AM	20:12	7.03 pH	15.11 °C	1.10 mS/cm	0.20 mg/L	51.27 NTU	-46.7 mV	14.45 ft	300.00 ml/min
6/11/2025 11:23 AM	22:31	7.03 pH	15.15 °C	1.12 mS/cm	0.23 mg/L	51.69 NTU	-45.9 mV	14.45 ft	300.00 ml/min
6/11/2025 11:25 AM	24:50	7.04 pH	15.32 °C	0.94 mS/cm	0.24 mg/L	50.61 NTU	-45.7 mV	14.45 ft	300.00 ml/min

6/11/2025 11:27 AM	27:09	7.03 pH	15.33 °C	0.80 mS/cm	0.25 mg/L	40.53 NTU	-46.5 mV	14.45 ft	300.00 ml/min
6/11/2025 11:30 AM	29:28	7.04 pH	15.40 °C	0.94 mS/cm	0.26 mg/L	35.58 NTU	-45.5 mV	14.45 ft	300.00 ml/min
6/11/2025 11:32 AM	31:47	7.04 pH	15.25 °C	0.79 mS/cm	0.23 mg/L	48.16 NTU	-45.5 mV	14.45 ft	300.00 ml/min
6/11/2025 11:34 AM	34:06	7.08 pH	15.24 °C	0.76 mS/cm	0.21 mg/L	69.24 NTU	-46.9 mV	14.45 ft	300.00 ml/min
6/11/2025 11:37 AM	36:25	7.05 pH	15.39 °C	1.35 mS/cm	1.21 mg/L	8.99 NTU	-42.2 mV	14.45 ft	300.00 ml/min
6/11/2025 11:39 AM	38:44	7.05 pH	15.41 °C	1.34 mS/cm	0.45 mg/L	7.89 NTU	-42.4 mV	14.45 ft	300.00 ml/min
6/11/2025 11:41 AM	41:03	7.04 pH	15.15 °C	1.30 mS/cm	0.35 mg/L	7.47 NTU	-43.4 mV	14.45 ft	300.00 ml/min
6/11/2025 11:44 AM	43:22	7.07 pH	15.09 °C	1.29 mS/cm	0.37 mg/L	7.06 NTU	-43.8 mV	14.45 ft	300.00 ml/min
6/11/2025 11:46 AM	45:41	7.05 pH	15.30 °C	1.26 mS/cm	0.44 mg/L	6.76 NTU	-43.0 mV	14.45 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW105-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 11:57:27 AM
Project: WSEC MW-108
Operator Name: Brooke Wasson

Location Name: MW-108 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 11 ft** **Top of Screen: 25.4 ft** **Total Depth: 26.4 ft** **Initial Depth to Water: 14.85 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.45 ft** **Pump Intake From TOC: 23.3 ft** **Estimated Total Volume Pumped: 1866.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.3 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1210

Weather Conditions:
85 degrees F sunny breezy14

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 11:57 AM	00:00	6.80 pH	19.34 °C	1.37 mS/cm	7.33 mg/L	22.22 NTU	-75.8 mV	14.85 ft	200.00 ml/min
6/11/2025 11:59 AM	02:20	6.92 pH	15.31 °C	1.44 mS/cm	0.80 mg/L	2.24 NTU	-146.6 mV	15.15 ft	200.00 ml/min
6/11/2025 12:02 PM	04:40	6.95 pH	15.03 °C	1.44 mS/cm	0.14 mg/L	1.30 NTU	-154.9 mV	15.15 ft	200.00 ml/min
6/11/2025 12:04 PM	07:00	7.00 pH	14.78 °C	1.46 mS/cm	0.06 mg/L	0.99 NTU	-160.8 mV	15.15 ft	200.00 ml/min
6/11/2025 12:06 PM	09:20	7.06 pH	14.84 °C	1.47 mS/cm	0.01 mg/L	1.24 NTU	-163.3 mV	15.15 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW108-GW-0625	

Low-Flow Test Report:

Test Date / Time: 6/11/2025 12:19:16 PM
Project: WSEC MW-133
Operator Name: Brooke Wasson

Location Name: MW-133
Well Diameter: 2 in
Casing Type: PVC
Screen Length: 10 ft
Top of Screen: 15.46 ft
Total Depth: 25.46 ft
Initial Depth to Water: 17.36 ft

Pump Type: Geotech 166PVC18 Bladder Pump
Tubing Type: Twin bonded 1/4" x 1/4" tubing
Tubing Inner Diameter: 0.125 in
Tubing Length: 21.76 ft
Pump Intake From TOC: 23.6 ft
Estimated Total Volume Pumped: 7153.333 ml
Flow Cell Volume: 130 ml
Final Flow Rate: 200 ml/min
Final Draw Down: 0 ft

Instrument Used: Aqua TROLL 600
Serial Number: 955645

Test Notes:
Sampled 1255

Weather Conditions:
86 degrees F sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 12:19 PM	00:00	6.85 pH	20.07 °C	1.55 mS/cm	5.54 mg/L	56.71 NTU	-23.0 mV	17.36 ft	200.00 ml/min
6/11/2025 12:20 PM	01:14	6.95 pH	17.40 °C	1.59 mS/cm	2.16 mg/L	356.23 NTU	-102.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:21 PM	02:28	6.90 pH	16.70 °C	1.51 mS/cm	0.76 mg/L	387.62 NTU	-107.8 mV	17.36 ft	200.00 ml/min
6/11/2025 12:22 PM	03:42	6.97 pH	16.58 °C	1.52 mS/cm	0.28 mg/L	406.26 NTU	-111.3 mV	17.36 ft	200.00 ml/min
6/11/2025 12:24 PM	04:56	6.98 pH	16.48 °C	1.51 mS/cm	0.15 mg/L	376.66 NTU	-112.4 mV	17.36 ft	200.00 ml/min
6/11/2025 12:25 PM	06:10	7.01 pH	16.37 °C	1.50 mS/cm	0.09 mg/L	257.56 NTU	-114.3 mV	17.36 ft	200.00 ml/min
6/11/2025 12:26 PM	07:24	7.03 pH	16.38 °C	1.49 mS/cm	0.06 mg/L	228.11 NTU	-116.2 mV	17.36 ft	200.00 ml/min
6/11/2025 12:27 PM	08:38	7.05 pH	16.46 °C	1.48 mS/cm	0.04 mg/L	132.34 NTU	-117.7 mV	17.36 ft	200.00 ml/min
6/11/2025 12:29 PM	09:52	7.06 pH	16.43 °C	1.48 mS/cm	0.02 mg/L	101.36 NTU	-119.1 mV	17.36 ft	200.00 ml/min
6/11/2025 12:30 PM	11:06	7.07 pH	16.42 °C	1.47 mS/cm	0.02 mg/L	79.97 NTU	-119.9 mV	17.36 ft	200.00 ml/min
6/11/2025 12:31 PM	12:20	7.07 pH	16.55 °C	1.46 mS/cm	0.01 mg/L	64.89 NTU	-121.1 mV	17.36 ft	200.00 ml/min

6/11/2025 12:32 PM	13:34	7.08 pH	16.58 °C	1.46 mS/cm	0.00 mg/L	47.72 NTU	-121.9 mV	17.36 ft	200.00 ml/min
6/11/2025 12:34 PM	14:48	7.08 pH	16.51 °C	1.45 mS/cm	0.00 mg/L	46.79 NTU	-122.3 mV	17.36 ft	200.00 ml/min
6/11/2025 12:35 PM	16:02	7.15 pH	16.47 °C	1.55 mS/cm	0.00 mg/L	38.80 NTU	-122.7 mV	17.36 ft	200.00 ml/min
6/11/2025 12:36 PM	17:16	7.09 pH	16.50 °C	1.44 mS/cm	0.00 mg/L	42.21 NTU	-122.9 mV	17.36 ft	200.00 ml/min
6/11/2025 12:37 PM	18:30	7.15 pH	16.61 °C	1.52 mS/cm	0.00 mg/L	30.85 NTU	-123.2 mV	17.36 ft	200.00 ml/min
6/11/2025 12:39 PM	19:44	7.10 pH	16.51 °C	1.54 mS/cm	0.00 mg/L	36.69 NTU	-122.9 mV	17.36 ft	200.00 ml/min
6/11/2025 12:40 PM	20:58	7.04 pH	16.38 °C	1.43 mS/cm	0.00 mg/L	21.90 NTU	-122.4 mV	17.36 ft	200.00 ml/min
6/11/2025 12:41 PM	22:12	7.07 pH	16.36 °C	1.43 mS/cm	0.00 mg/L	23.15 NTU	-122.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:42 PM	23:26	7.04 pH	16.28 °C	1.42 mS/cm	0.00 mg/L	27.10 NTU	-122.1 mV	17.36 ft	200.00 ml/min
6/11/2025 12:43 PM	24:40	7.07 pH	16.31 °C	1.42 mS/cm	0.00 mg/L	22.72 NTU	-122.4 mV	17.36 ft	200.00 ml/min
6/11/2025 12:45 PM	25:54	7.07 pH	16.42 °C	1.42 mS/cm	0.00 mg/L	28.16 NTU	-122.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:46 PM	27:08	7.08 pH	16.38 °C	1.42 mS/cm	0.00 mg/L	26.61 NTU	-122.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:47 PM	28:22	7.07 pH	16.37 °C	1.41 mS/cm	0.00 mg/L	31.49 NTU	-122.5 mV	17.36 ft	200.00 ml/min
6/11/2025 12:48 PM	29:36	7.07 pH	16.46 °C	1.41 mS/cm	0.00 mg/L	35.32 NTU	-122.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:50 PM	30:50	7.09 pH	16.20 °C	2.00 mS/cm	2.89 mg/L	9.25 NTU	-112.6 mV	17.36 ft	200.00 ml/min
6/11/2025 12:51 PM	32:04	7.07 pH	16.13 °C	2.01 mS/cm	0.77 mg/L	5.45 NTU	-115.5 mV	17.36 ft	200.00 ml/min
6/11/2025 12:52 PM	33:18	7.06 pH	16.18 °C	2.01 mS/cm	0.20 mg/L	4.81 NTU	-117.7 mV	17.36 ft	200.00 ml/min
6/11/2025 12:53 PM	34:32	7.06 pH	16.11 °C	2.01 mS/cm	0.07 mg/L	4.47 NTU	-119.1 mV	17.36 ft	200.00 ml/min
6/11/2025 12:55 PM	35:46	7.06 pH	16.01 °C	2.00 mS/cm	0.03 mg/L	6.01 NTU	-119.7 mV	17.36 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW133-GW-0625	

Low-Flow Test Report:

Test Date / Time: 6/11/2025 8:59:21 AM
Project: WSEC MW-159
Operator Name: Brooke Wasson

Location Name: MW-159 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.3 ft** **Total Depth: 25.3 ft** **Initial Depth to Water: 19.66 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 22.26 ft** **Pump Intake From TOC: 24.1 ft** **Estimated Total Volume Pumped: 1866.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.04 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 0910

Weather Conditions:
71 degrees F sunny .g.be!

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 8:59 AM	00:00	6.92 pH	14.78 °C	1.40 mS/cm	3.12 mg/L	2.80 NTU	183.6 mV	19.66 ft	200.00 ml/min
6/11/2025 9:01 AM	02:20	6.77 pH	14.20 °C	1.41 mS/cm	0.80 mg/L	1.12 NTU	172.4 mV	19.70 ft	200.00 ml/min
6/11/2025 9:04 AM	04:40	6.75 pH	14.18 °C	1.41 mS/cm	0.47 mg/L	0.97 NTU	167.6 mV	19.70 ft	200.00 ml/min
6/11/2025 9:06 AM	07:00	6.68 pH	14.14 °C	1.41 mS/cm	0.40 mg/L	0.82 NTU	163.9 mV	19.70 ft	200.00 ml/min
6/11/2025 9:08 AM	09:20	6.66 pH	14.09 °C	1.41 mS/cm	0.34 mg/L	0.75 NTU	161.0 mV	19.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW159-GW-0625	

Low-Flow Test Report:

Test Date / Time: 6/11/2025 1:32:14 PM
Project: WSEC MW-240R
Operator Name: Brooke Wasson

Location Name: MW-240R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.36 ft** **Total Depth: 30.36 ft** **Initial Depth to Water: 22.33 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.7 ft** **Pump Intake From TOC: 29.6 ft** **Estimated Total Volume Pumped: 3360 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1350

Weather Conditions:
89 degrees F sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 1:32 PM	00:00	6.70 pH	20.59 °C	1.16 mS/cm	6.25 mg/L	1.73 NTU	113.5 mV	22.33 ft	200.00 ml/min
6/11/2025 1:34 PM	02:24	6.78 pH	16.36 °C	1.22 mS/cm	1.20 mg/L	13.74 NTU	97.9 mV	22.46 ft	200.00 ml/min
6/11/2025 1:37 PM	04:48	6.89 pH	16.49 °C	1.17 mS/cm	0.30 mg/L	8.38 NTU	84.1 mV	22.46 ft	200.00 ml/min
6/11/2025 1:39 PM	07:12	6.98 pH	16.22 °C	1.17 mS/cm	0.13 mg/L	5.65 NTU	77.7 mV	22.46 ft	200.00 ml/min
6/11/2025 1:41 PM	09:36	6.94 pH	16.22 °C	1.30 mS/cm	0.08 mg/L	6.22 NTU	76.8 mV	22.46 ft	200.00 ml/min
6/11/2025 1:44 PM	12:00	6.94 pH	16.16 °C	1.33 mS/cm	0.05 mg/L	4.42 NTU	76.4 mV	22.46 ft	200.00 ml/min
6/11/2025 1:46 PM	14:24	6.93 pH	16.10 °C	1.23 mS/cm	0.04 mg/L	6.29 NTU	76.3 mV	22.46 ft	200.00 ml/min
6/11/2025 1:49 PM	16:48	6.95 pH	16.16 °C	1.31 mS/cm	0.02 mg/L	9.59 NTU	75.9 mV	22.46 ft	200.00 ml/min

Samples

Sample ID:	Description:

MW240R-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 9:19:32 AM
Project: WSEC MW-245
Operator Name: Brooke Wasson

Location Name: MW-245 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.8 ft** **Total Depth: 33.8 ft** **Initial Depth to Water: 28.87 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.95 ft** **Pump Intake From TOC: 32.8 ft** **Estimated Total Volume Pumped: 3020 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0.55 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 0950

Weather Conditions:
74 degrees F sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 9:19 AM	00:00	6.61 pH	15.96 °C	1.88 mS/cm	5.91 mg/L	13.90 NTU	34.4 mV	28.87 ft	200.00 ml/min
6/11/2025 9:21 AM	02:26	6.58 pH	16.82 °C	2.03 mS/cm	1.44 mg/L	28.10 NTU	-22.1 mV	29.35 ft	100.00 ml/min
6/11/2025 9:24 AM	04:52	6.57 pH	17.31 °C	2.04 mS/cm	1.10 mg/L	29.87 NTU	-12.6 mV	29.40 ft	100.00 ml/min
6/11/2025 9:26 AM	07:18	6.57 pH	17.48 °C	2.03 mS/cm	1.00 mg/L	23.58 NTU	-14.1 mV	29.42 ft	100.00 ml/min
6/11/2025 9:29 AM	09:44	6.58 pH	17.55 °C	2.03 mS/cm	0.93 mg/L	18.49 NTU	-17.2 mV	29.42 ft	100.00 ml/min
6/11/2025 9:31 AM	12:10	6.58 pH	17.54 °C	2.03 mS/cm	0.94 mg/L	18.05 NTU	-19.2 mV	29.42 ft	100.00 ml/min
6/11/2025 9:34 AM	14:36	6.60 pH	17.58 °C	2.03 mS/cm	0.93 mg/L	18.02 NTU	-21.5 mV	29.42 ft	100.00 ml/min
6/11/2025 9:35 AM	15:36	6.96 pH	17.97 °C	0.01 mS/cm	4.53 mg/L	1.55 NTU	-32.6 mV	29.42 ft	100.00 ml/min
6/11/2025 9:37 AM	18:02	6.64 pH	17.62 °C	2.01 mS/cm	1.50 mg/L	13.68 NTU	-29.5 mV	29.42 ft	100.00 ml/min
6/11/2025 9:40 AM	20:28	6.65 pH	17.63 °C	2.02 mS/cm	1.06 mg/L	11.95 NTU	-28.5 mV	29.42 ft	100.00 ml/min
6/11/2025 9:42 AM	22:54	6.66 pH	17.73 °C	2.02 mS/cm	1.00 mg/L	9.43 NTU	-30.9 mV	29.42 ft	100.00 ml/min
6/11/2025 9:44 AM	25:20	6.68 pH	17.68 °C	2.02 mS/cm	0.98 mg/L	6.89 NTU	-34.8 mV	29.42 ft	100.00 ml/min

6/11/2025 9:47 AM	27:46	6.70 pH	17.64 °C	2.01 mS/cm	0.98 mg/L	5.42 NTU	-38.8 mV	29.42 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW245-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 10:05:12 AM
Project: WSEC MW-247
Operator Name: Brooke Wasson

Location Name: MW-247 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.2 ft** **Total Depth: 33.2 ft** **Initial Depth to Water: 27.09 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.46 ft** **Pump Intake From TOC: 32.3 ft** **Estimated Total Volume Pumped: 3406.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.17 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1025

Weather Conditions:
77 degrees F sunny breezy27.09

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 10:05 AM	00:00	6.88 pH	18.85 °C	1.05 mS/cm	7.10 mg/L	2.44 NTU	67.6 mV	27.09 ft	200.00 ml/min
6/11/2025 10:07 AM	02:26	6.82 pH	15.44 °C	0.84 mS/cm	1.12 mg/L	1.00 NTU	82.7 mV	27.26 ft	200.00 ml/min
6/11/2025 10:10 AM	04:52	6.90 pH	15.08 °C	0.83 mS/cm	0.23 mg/L	0.88 NTU	41.4 mV	27.26 ft	200.00 ml/min
6/11/2025 10:12 AM	07:18	6.97 pH	14.93 °C	0.95 mS/cm	0.10 mg/L	0.89 NTU	17.0 mV	27.26 ft	200.00 ml/min
6/11/2025 10:14 AM	09:44	6.94 pH	14.97 °C	0.84 mS/cm	0.05 mg/L	0.84 NTU	4.4 mV	27.26 ft	200.00 ml/min
6/11/2025 10:17 AM	12:10	6.94 pH	14.83 °C	0.69 mS/cm	0.03 mg/L	0.79 NTU	-2.9 mV	27.26 ft	200.00 ml/min
6/11/2025 10:19 AM	14:36	6.93 pH	14.78 °C	0.71 mS/cm	0.02 mg/L	0.85 NTU	-7.8 mV	27.26 ft	200.00 ml/min
6/11/2025 10:22 AM	17:02	6.94 pH	14.80 °C	0.73 mS/cm	0.01 mg/L	0.94 NTU	-14.4 mV	27.26 ft	200.00 ml/min

Samples

Sample ID:	Description:

MW247-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 10:32:38 AM
Project: WSEC MW-248
Operator Name: Brooke Wasson

Location Name: MW-248 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 29.1 ft** **Total Depth: 34.1 ft** **Initial Depth to Water: 27.84 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 31.24 ft** **Pump Intake From TOC: 33.1 ft** **Estimated Total Volume Pumped: 3675 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1045
Collected Duplicate

Weather Conditions:
79 degrees F sunny breezy27.84

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 10:32 AM	00:00	6.93 pH	17.60 °C	1.28 mS/cm	5.92 mg/L	54.49 NTU	57.6 mV	27.84 ft	300.00 ml/min
6/11/2025 10:35 AM	02:27	7.06 pH	15.22 °C	1.21 mS/cm	0.85 mg/L	34.74 NTU	-99.5 mV	27.86 ft	300.00 ml/min
6/11/2025 10:37 AM	04:54	7.13 pH	15.26 °C	1.21 mS/cm	0.16 mg/L	16.20 NTU	-114.4 mV	27.86 ft	300.00 ml/min
6/11/2025 10:39 AM	07:21	7.15 pH	15.12 °C	1.21 mS/cm	0.06 mg/L	10.44 NTU	-118.6 mV	27.86 ft	300.00 ml/min
6/11/2025 10:42 AM	09:48	7.19 pH	15.22 °C	1.20 mS/cm	0.02 mg/L	6.33 NTU	-120.1 mV	27.86 ft	300.00 ml/min
6/11/2025 10:44 AM	12:15	7.20 pH	15.26 °C	1.20 mS/cm	0.00 mg/L	6.71 NTU	-122.7 mV	27.86 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW248-GW-0625	
DP01-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 6/11/2025 1:06:54 PM
Project: WSEC MW-250
Operator Name: Brooke Wasson

Location Name: MW-250 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.8 ft** **Total Depth: 30.8 ft** **Initial Depth to Water: 24.84 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.05 ft** **Pump Intake From TOC: 28.9 ft** **Estimated Total Volume Pumped: 2010 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 955645**

Test Notes:
Sampled 1320

Weather Conditions:
88 degrees F sunny breezy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
6/11/2025 1:06 PM	00:00	6.73 pH	18.51 °C	1.49 mS/cm	6.07 mg/L	1.94 NTU	21.8 mV	24.84 ft	200.00 ml/min
6/11/2025 1:07 PM	00:27	6.79 pH	18.00 °C	1.51 mS/cm	3.98 mg/L	1.46 NTU	24.4 mV	24.84 ft	200.00 ml/min
6/11/2025 1:09 PM	02:51	6.69 pH	17.22 °C	1.53 mS/cm	0.63 mg/L	1.25 NTU	31.2 mV	24.84 ft	200.00 ml/min
6/11/2025 1:12 PM	05:15	6.71 pH	17.44 °C	1.52 mS/cm	0.18 mg/L	1.15 NTU	31.0 mV	24.84 ft	200.00 ml/min
6/11/2025 1:14 PM	07:39	6.74 pH	17.00 °C	1.51 mS/cm	0.09 mg/L	1.11 NTU	19.7 mV	24.84 ft	200.00 ml/min
6/11/2025 1:16 PM	10:03	6.74 pH	17.05 °C	1.51 mS/cm	0.06 mg/L	1.11 NTU	18.7 mV	24.84 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW250-GW-0625	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 7/24/2025 3:58:32 PM
Project: WSEC MW-156D
Operator Name: Layne Lunsford

Location Name: MW-156D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.5 ft** **Total Depth: 31.5 ft** **Initial Depth to Water: 21.82 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.5 ft** **Pump Intake From TOC: 29.5 ft** **Estimated Total Volume Pumped: 8970 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.07 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 998748**

Test Notes:
Sample time 16:30

Weather Conditions:
Cloudy 75°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
7/24/2025 3:58 PM	00:00	7.00 pH	19.45 °C	207.69 mS/cm	0.99 mg/L	241.13 NTU	-61.2 mV	21.89 ft	300.00 ml/min
7/24/2025 4:00 PM	02:18	7.03 pH	16.32 °C	206.12 mS/cm	0.28 mg/L	108.82 NTU	-85.8 mV	21.89 ft	300.00 ml/min
7/24/2025 4:03 PM	04:36	7.01 pH	15.51 °C	203.24 mS/cm	0.13 mg/L	46.06 NTU	-86.7 mV	21.89 ft	300.00 ml/min
7/24/2025 4:05 PM	06:54	7.01 pH	15.52 °C	201.64 mS/cm	0.14 mg/L	28.32 NTU	-88.4 mV	21.89 ft	300.00 ml/min
7/24/2025 4:07 PM	09:12	7.05 pH	15.47 °C	200.88 mS/cm	0.13 mg/L	23.12 NTU	-88.4 mV	21.89 ft	300.00 ml/min
7/24/2025 4:10 PM	11:30	7.02 pH	15.49 °C	200.70 mS/cm	0.15 mg/L	28.70 NTU	-87.7 mV	21.89 ft	300.00 ml/min
7/24/2025 4:12 PM	13:48	7.01 pH	15.56 °C	199.07 mS/cm	0.13 mg/L	12.39 NTU	-87.7 mV	21.89 ft	300.00 ml/min
7/24/2025 4:14 PM	16:06	7.00 pH	15.26 °C	201.28 mS/cm	0.14 mg/L	8.84 NTU	-87.4 mV	21.89 ft	300.00 ml/min
7/24/2025 4:16 PM	18:24	7.02 pH	15.43 °C	200.87 mS/cm	0.14 mg/L	14.37 NTU	-87.4 mV	21.89 ft	300.00 ml/min
7/24/2025 4:19 PM	20:42	7.02 pH	15.48 °C	200.96 mS/cm	0.14 mg/L	12.92 NTU	-87.0 mV	21.89 ft	300.00 ml/min
7/24/2025 4:21 PM	23:00	7.01 pH	15.48 °C	201.23 mS/cm	0.14 mg/L	9.01 NTU	-86.3 mV	21.89 ft	300.00 ml/min

7/24/2025 4:23 PM	25:18	6.96 pH	15.40 °C	200.87 mS/cm	0.16 mg/L	7.31 NTU	-85.1 mV	21.89 ft	300.00 ml/min
7/24/2025 4:26 PM	27:36	6.99 pH	15.34 °C	200.80 mS/cm	0.15 mg/L	6.37 NTU	-85.1 mV	21.89 ft	300.00 ml/min
7/24/2025 4:28 PM	29:54	6.99 pH	15.24 °C	201.43 mS/cm	0.15 mg/L	3.15 NTU	-84.6 mV	21.89 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW156D-GW-0725	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 7/24/2025 4:59:42 PM
Project: WSEC MW-227D
Operator Name: Layne Lunsford

Location Name: MW-227D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 17.65 ft** **Total Depth: 32.65 ft** **Initial Depth to Water: 21.94 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.65 ft** **Pump Intake From TOC: 30.65 ft** **Estimated Total Volume Pumped: 14588.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 998748**

Test Notes:
Sample time 18:00

Weather Conditions:
Cloudy 70°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
7/24/2025 4:59 PM	00:00	7.13 pH	17.54 °C	146.80 mS/cm	2.15 mg/L	930.65 NTU	-91.6 mV	21.94 ft	400.00 ml/min
7/24/2025 5:02 PM	02:20	7.09 pH	16.23 °C	142.66 mS/cm	0.04 mg/L	246.89 NTU	-129.9 mV	21.94 ft	300.00 ml/min
7/24/2025 5:04 PM	04:40	7.09 pH	17.52 °C	142.18 mS/cm	0.01 mg/L	98.24 NTU	-137.4 mV	21.94 ft	300.00 ml/min
7/24/2025 5:06 PM	07:00	7.08 pH	17.55 °C	141.24 mS/cm	0.00 mg/L	68.99 NTU	-139.9 mV	21.94 ft	300.00 ml/min
7/24/2025 5:09 PM	09:20	7.10 pH	17.56 °C	140.80 mS/cm	0.00 mg/L	50.62 NTU	-142.0 mV	21.94 ft	300.00 ml/min
7/24/2025 5:11 PM	11:40	7.12 pH	17.56 °C	140.01 mS/cm	0.00 mg/L	43.57 NTU	-142.7 mV	21.94 ft	300.00 ml/min
7/24/2025 5:13 PM	14:00	7.05 pH	18.08 °C	137.92 mS/cm	2.00 mg/L	39.98 NTU	-124.0 mV	21.94 ft	300.00 ml/min
7/24/2025 5:16 PM	16:20	7.08 pH	17.55 °C	139.19 mS/cm	0.00 mg/L	35.87 NTU	-136.5 mV	21.94 ft	300.00 ml/min
7/24/2025 5:18 PM	18:40	7.09 pH	17.56 °C	139.14 mS/cm	0.00 mg/L	30.30 NTU	-139.9 mV	21.94 ft	300.00 ml/min
7/24/2025 5:20 PM	21:00	7.06 pH	17.57 °C	138.95 mS/cm	0.00 mg/L	25.19 NTU	-139.5 mV	21.94 ft	300.00 ml/min
7/24/2025 5:23 PM	23:20	7.09 pH	17.42 °C	139.05 mS/cm	0.00 mg/L	19.23 NTU	-141.8 mV	21.94 ft	300.00 ml/min

7/24/2025 5:25 PM	25:40	7.09 pH	17.49 °C	138.99 mS/cm	0.00 mg/L	21.23 NTU	-142.5 mV	21.94 ft	300.00 ml/min
7/24/2025 5:27 PM	28:00	7.16 pH	19.35 °C	0.11 mS/cm	9.37 mg/L	0.00 NTU	-111.2 mV	21.94 ft	300.00 ml/min
7/24/2025 5:30 PM	30:20	6.98 pH	18.13 °C	6.64 mS/cm	8.12 mg/L	176.96 NTU	-81.3 mV	21.94 ft	300.00 ml/min
7/24/2025 5:31 PM	31:26	7.04 pH	17.74 °C	138.86 mS/cm		12.74 NTU	-127.7 mV	21.94 ft	300.00 ml/min
7/24/2025 5:40 PM	40:51	6.98 pH	17.55 °C	139.74 mS/cm	0.00 mg/L	6.54 NTU	-140.0 mV	21.94 ft	300.00 ml/min
7/24/2025 5:42 PM	43:11	7.08 pH	17.54 °C	139.66 mS/cm	0.00 mg/L	7.03 NTU	-140.8 mV	21.94 ft	300.00 ml/min
7/24/2025 5:45 PM	45:31	7.09 pH	17.48 °C	139.75 mS/cm	0.00 mg/L	6.91 NTU	-141.0 mV	21.94 ft	300.00 ml/min
7/24/2025 5:47 PM	47:51	7.07 pH	17.10 °C	139.70 mS/cm	0.00 mg/L	5.00 NTU	-139.9 mV	21.94 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW227D-GW-0725	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 7/24/2025 9:38:09 AM
Project: WSEC MW-307D
Operator Name: Layne Lunsford

Location Name: MW-307D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 12.1 ft** **Total Depth: 27.1 ft** **Initial Depth to Water: 17.26 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.1 ft** **Pump Intake From TOC: 25.1 ft** **Estimated Total Volume Pumped: 5206.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 998748**

Test Notes:
Sample time 10:20

Weather Conditions:
Cloudy 75°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
7/24/2025 9:38 AM	00:00	6.00 pH	19.95 °C	119.78 mS/cm	4.05 mg/L	3.87 NTU	183.6 mV	17.26 ft	200.00 ml/min
7/24/2025 9:39 AM	01:11	6.65 pH	16.26 °C	131.81 mS/cm	2.17 mg/L	11.49 NTU	157.7 mV	17.26 ft	300.00 ml/min
7/24/2025 9:40 AM	02:22	6.72 pH	15.16 °C	130.70 mS/cm	0.62 mg/L	7.77 NTU	149.1 mV	17.26 ft	300.00 ml/min
7/24/2025 9:41 AM	03:33	6.75 pH	14.66 °C	130.10 mS/cm	0.43 mg/L	2.52 NTU	152.5 mV	17.26 ft	300.00 ml/min
7/24/2025 9:42 AM	04:44	6.78 pH	14.33 °C	128.24 mS/cm	0.59 mg/L	0.28 NTU	143.1 mV	17.26 ft	300.00 ml/min
7/24/2025 9:44 AM	05:55	6.79 pH	14.04 °C	127.83 mS/cm	0.68 mg/L	0.00 NTU	144.2 mV	17.26 ft	300.00 ml/min
7/24/2025 9:45 AM	07:06	6.82 pH	14.34 °C	127.56 mS/cm	0.69 mg/L	8.42 NTU	142.9 mV	17.26 ft	300.00 ml/min
7/24/2025 9:46 AM	08:17	6.83 pH	14.15 °C	127.34 mS/cm	0.70 mg/L	0.00 NTU	135.0 mV	17.26 ft	300.00 ml/min
7/24/2025 9:47 AM	09:28	6.84 pH	14.02 °C	127.60 mS/cm	0.69 mg/L	0.00 NTU	138.3 mV	17.26 ft	300.00 ml/min
7/24/2025 9:48 AM	10:39	6.85 pH	14.13 °C	127.72 mS/cm	0.69 mg/L	0.00 NTU	136.0 mV	17.26 ft	300.00 ml/min
7/24/2025 9:49 AM	11:50	6.87 pH	14.11 °C	127.37 mS/cm	0.68 mg/L	0.00 NTU	135.0 mV	17.26 ft	300.00 ml/min

7/24/2025 9:51 AM	13:01	6.88 pH	14.06 °C	127.57 mS/cm	0.67 mg/L	0.00 NTU	134.0 mV	17.26 ft	300.00 ml/min
7/24/2025 9:52 AM	14:12	6.88 pH	13.94 °C	127.60 mS/cm	0.70 mg/L	0.00 NTU	132.2 mV	17.26 ft	300.00 ml/min
7/24/2025 9:53 AM	15:23	6.88 pH	14.16 °C	127.62 mS/cm	0.71 mg/L	3.88 NTU	133.0 mV	17.26 ft	300.00 ml/min
7/24/2025 9:54 AM	16:34	6.88 pH	14.15 °C	127.63 mS/cm	0.72 mg/L	0.00 NTU	132.0 mV	17.26 ft	300.00 ml/min
7/24/2025 9:55 AM	17:45	6.87 pH	14.14 °C	127.70 mS/cm	0.68 mg/L	0.11 NTU	131.3 mV	17.26 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW307D-GW-0725	
MW307D-GW-0725 MS/MSD	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 7:01:05 AM
Project: WSEC MW-105
Operator Name: Layne Lunsford

Location Name: MW-105 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.48 ft** **Total Depth: 25.48 ft** **Initial Depth to Water: 14.7 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 20.64 ft** **Pump Intake From TOC: 22.5 ft** **Estimated Total Volume Pumped: 5560 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 7:30

Weather Conditions:
Cloudy 62°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 7:01 AM	00:00	6.79 pH	15.74 °C	1.42 mS/cm	1.95 mg/L	172.79 NTU	85.6 mV	14.70 ft	200.00 ml/min
10/2/2025 7:03 AM	02:19	6.79 pH	15.45 °C	1.43 mS/cm	2.05 mg/L	78.05 NTU	79.6 mV	14.70 ft	200.00 ml/min
10/2/2025 7:05 AM	04:38	6.78 pH	15.28 °C	1.44 mS/cm	1.93 mg/L	29.83 NTU	75.9 mV	14.70 ft	200.00 ml/min
10/2/2025 7:08 AM	06:57	6.78 pH	15.25 °C	1.44 mS/cm	1.93 mg/L	17.16 NTU	74.8 mV	14.70 ft	200.00 ml/min
10/2/2025 7:10 AM	09:16	6.79 pH	15.27 °C	1.44 mS/cm	1.89 mg/L	13.83 NTU	74.0 mV	14.70 ft	200.00 ml/min
10/2/2025 7:12 AM	11:35	6.80 pH	15.26 °C	1.44 mS/cm	1.89 mg/L	14.62 NTU	72.0 mV	14.70 ft	200.00 ml/min
10/2/2025 7:14 AM	13:54	6.80 pH	15.22 °C	1.43 mS/cm	1.79 mg/L	13.66 NTU	71.6 mV	14.70 ft	200.00 ml/min
10/2/2025 7:17 AM	16:13	6.80 pH	15.24 °C	1.43 mS/cm	1.77 mg/L	11.90 NTU	71.1 mV	14.70 ft	200.00 ml/min
10/2/2025 7:19 AM	18:32	6.80 pH	15.23 °C	1.43 mS/cm	1.73 mg/L	12.26 NTU	69.9 mV	14.70 ft	200.00 ml/min
10/2/2025 7:21 AM	20:51	6.80 pH	15.23 °C	1.43 mS/cm	1.67 mg/L	8.81 NTU	69.5 mV	14.70 ft	200.00 ml/min
10/2/2025 7:24 AM	23:10	6.80 pH	15.26 °C	1.42 mS/cm	1.79 mg/L	7.07 NTU	69.0 mV	14.70 ft	200.00 ml/min
10/2/2025 7:26 AM	25:29	6.80 pH	15.22 °C	1.42 mS/cm	1.62 mg/L	6.15 NTU	68.5 mV	14.70 ft	200.00 ml/min

10/2/2025 7:28 AM	27:48	6.81 pH	15.24 °C	1.42 mS/cm	1.66 mg/L	4.04 NTU	68.4 mV	14.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW105-GW-1025	
DUP03-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 1:53:49 PM
Project: WSEC MW-108
Operator Name: Layne Lunsford

Location Name: MW-108 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 14.88 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.45 ft** **Pump Intake From TOC: 23.3 ft** **Estimated Total Volume Pumped: 8866.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 14:50

Weather Conditions:
Sunny 82°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 1:53 PM	00:00	6.90 pH	39.64 °C	0.00 mS/cm	3.97 mg/L	6.08 NTU	-79.6 mV	14.88 ft	200.00 ml/min
10/1/2025 1:56 PM	02:20	7.07 pH	22.75 °C	1.14 mS/cm	1.51 mg/L	1.23 NTU	-132.1 mV	14.88 ft	200.00 ml/min
10/1/2025 1:58 PM	04:40	7.05 pH	20.12 °C	1.15 mS/cm	1.40 mg/L	1.64 NTU	-129.4 mV	14.88 ft	200.00 ml/min
10/1/2025 2:00 PM	07:00	7.03 pH	19.09 °C	1.15 mS/cm	0.77 mg/L	3.02 NTU	-132.1 mV	14.88 ft	200.00 ml/min
10/1/2025 2:03 PM	09:20	7.01 pH	19.01 °C	1.14 mS/cm	0.82 mg/L	3.67 NTU	-132.6 mV	14.88 ft	200.00 ml/min
10/1/2025 2:05 PM	11:40	6.99 pH	18.42 °C	1.15 mS/cm	0.81 mg/L	0.55 NTU	-132.4 mV	14.88 ft	200.00 ml/min
10/1/2025 2:07 PM	14:00	6.97 pH	18.50 °C	1.15 mS/cm	0.72 mg/L	0.00 NTU	-133.5 mV	14.88 ft	200.00 ml/min
10/1/2025 2:10 PM	16:20	6.98 pH	18.51 °C	1.15 mS/cm	0.92 mg/L	0.00 NTU	-133.7 mV	14.88 ft	200.00 ml/min
10/1/2025 2:12 PM	18:40	6.98 pH	18.19 °C	1.14 mS/cm	0.96 mg/L	0.00 NTU	-133.6 mV	14.88 ft	200.00 ml/min
10/1/2025 2:14 PM	21:00	6.96 pH	18.50 °C	1.14 mS/cm	0.81 mg/L	0.00 NTU	-134.3 mV	14.88 ft	200.00 ml/min
10/1/2025 2:17 PM	23:20	6.98 pH	18.68 °C	1.14 mS/cm	0.98 mg/L	0.00 NTU	-135.3 mV	14.88 ft	200.00 ml/min
10/1/2025 2:19 PM	25:40	7.02 pH	18.24 °C	1.14 mS/cm	0.81 mg/L	0.00 NTU	-138.6 mV	14.88 ft	200.00 ml/min

10/1/2025 2:21 PM	28:00	7.03 pH	18.68 °C	1.13 mS/cm	0.99 mg/L	0.21 NTU	-137.7 mV	14.88 ft	200.00 ml/min
10/1/2025 2:24 PM	30:20	7.05 pH	18.60 °C	1.13 mS/cm	0.95 mg/L	0.28 NTU	-139.4 mV	14.88 ft	200.00 ml/min
10/1/2025 2:26 PM	32:40	7.05 pH	18.29 °C	1.13 mS/cm	0.82 mg/L	0.63 NTU	-140.5 mV	14.88 ft	200.00 ml/min
10/1/2025 2:28 PM	35:00	7.05 pH	18.92 °C	1.13 mS/cm	1.14 mg/L	1.10 NTU	-139.2 mV	14.88 ft	200.00 ml/min
10/1/2025 2:31 PM	37:20	7.06 pH	18.35 °C	1.12 mS/cm	0.58 mg/L	0.25 NTU	-142.7 mV	14.88 ft	200.00 ml/min
10/1/2025 2:33 PM	39:40	7.06 pH	18.55 °C	1.12 mS/cm	1.11 mg/L	1.09 NTU	-140.8 mV	14.88 ft	200.00 ml/min
10/1/2025 2:35 PM	42:00	7.05 pH	18.63 °C	1.12 mS/cm	0.95 mg/L	0.00 NTU	-140.4 mV	14.88 ft	200.00 ml/min
10/1/2025 2:38 PM	44:20	7.06 pH	18.61 °C	1.11 mS/cm	0.98 mg/L	0.00 NTU	-140.4 mV	14.88 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW108-GW-1025	

Low-Flow Test Report:

Test Date / Time: 10/1/2025 4:34:40 PM
Project: WSEC MW-133
Operator Name: Paige Richards

Location Name: MW-133 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 16.92 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.76 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 9566.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1720

Water visually clear

Weather Conditions:
Sunny, 82 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 4:34 PM	00:00	6.87 pH	17.26 °C	1.30 mS/cm	1.01 mg/L	306.91 NTU	-106.0 mV	16.92 ft	400.00 ml/min
10/1/2025 4:37 PM	02:20	6.89 pH	16.57 °C	1.32 mS/cm	0.11 mg/L	60.82 NTU	-110.7 mV	16.92 ft	400.00 ml/min
10/1/2025 4:39 PM	04:40	6.98 pH	16.57 °C	1.31 mS/cm	0.07 mg/L	95.22 NTU	-115.0 mV	16.92 ft	300.00 ml/min
10/1/2025 4:41 PM	07:00	7.00 pH	16.61 °C	1.32 mS/cm	0.05 mg/L	53.44 NTU	-115.1 mV	16.92 ft	300.00 ml/min
10/1/2025 4:44 PM	09:20	7.03 pH	16.54 °C	1.33 mS/cm	0.05 mg/L	33.29 NTU	-117.8 mV	16.92 ft	300.00 ml/min
10/1/2025 4:46 PM	11:40	7.05 pH	16.54 °C	1.33 mS/cm	0.04 mg/L	22.36 NTU	-119.1 mV	16.92 ft	300.00 ml/min
10/1/2025 4:48 PM	14:00	7.05 pH	16.57 °C	1.34 mS/cm	0.03 mg/L	26.93 NTU	-119.3 mV	16.92 ft	300.00 ml/min
10/1/2025 4:51 PM	16:20	7.07 pH	16.59 °C	1.34 mS/cm	0.03 mg/L	25.20 NTU	-120.4 mV	16.92 ft	300.00 ml/min
10/1/2025 4:53 PM	18:40	7.08 pH	16.55 °C	1.34 mS/cm	0.03 mg/L	23.09 NTU	-121.5 mV	16.92 ft	300.00 ml/min
10/1/2025 4:55 PM	21:00	7.09 pH	16.65 °C	1.34 mS/cm	0.02 mg/L	30.79 NTU	-121.8 mV	16.92 ft	300.00 ml/min

10/1/2025 4:58 PM	23:20	7.08 pH	16.66 °C	1.35 mS/cm	0.02 mg/L	22.13 NTU	-121.9 mV	16.92 ft	300.00 ml/min
10/1/2025 5:00 PM	25:40	7.10 pH	16.53 °C	1.35 mS/cm	0.02 mg/L	7.54 NTU	-123.0 mV	16.92 ft	300.00 ml/min
10/1/2025 5:02 PM	28:00	7.11 pH	16.67 °C	1.35 mS/cm	0.02 mg/L	3.43 NTU	-123.2 mV	16.92 ft	300.00 ml/min
10/1/2025 5:05 PM	30:20	7.10 pH	16.48 °C	1.35 mS/cm	0.02 mg/L	2.78 NTU	-123.0 mV	16.92 ft	300.00 ml/min

Samples

Sample ID:	Description:
MW133-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 10:09:49 AM
Project: WSEC MW-156
Operator Name: Paige Richards

Location Name: MW-156 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13 ft** **Total Depth: 23 ft** **Initial Depth to Water: 20.76 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 19.8 ft** **Pump Intake From TOC: 21.7 ft** **Estimated Total Volume Pumped: 1610 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1100

Water visually clear; DTW below top of pump: 20.76' on 9/29, DTW after sample collection: 20.89'

Weather Conditions: Sunny, 73 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 10:09 AM	00:00	6.66 pH	20.19 °C	1.46 mS/cm	2.27 mg/L	1.72 NTU	51.3 mV	20.76 ft	100.00 ml/min
10/2/2025 10:12 AM	02:18	6.66 pH	20.27 °C	1.46 mS/cm	1.96 mg/L	1.75 NTU	59.7 mV	20.76 ft	100.00 ml/min
10/2/2025 10:14 AM	04:36	6.65 pH	20.37 °C	1.46 mS/cm	1.78 mg/L	1.79 NTU	66.6 mV	20.76 ft	100.00 ml/min
10/2/2025 10:16 AM	06:54	6.64 pH	20.44 °C	1.46 mS/cm	1.69 mg/L	1.78 NTU	71.7 mV	20.76 ft	100.00 ml/min
10/2/2025 10:19 AM	09:12	6.58 pH	20.55 °C	1.46 mS/cm	1.62 mg/L	1.88 NTU	79.2 mV	20.76 ft	100.00 ml/min
10/2/2025 10:21 AM	11:30	6.60 pH	20.76 °C	1.46 mS/cm	1.58 mg/L	1.87 NTU	80.7 mV	20.76 ft	100.00 ml/min
10/2/2025 10:23 AM	13:48	6.61 pH	20.75 °C	1.46 mS/cm	1.54 mg/L	1.94 NTU	83.0 mV	20.76 ft	100.00 ml/min
10/2/2025 10:25 AM	16:06	6.61 pH	20.82 °C	1.46 mS/cm	1.50 mg/L	1.93 NTU	85.1 mV	20.76 ft	100.00 ml/min

Samples

Sample ID:	Description:
MW156-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 9:10:54 AM
Project: WSEC MW-156D
Operator Name: Paige Richards

Location Name: MW-156D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.5 ft** **Total Depth: 31.5 ft** **Initial Depth to Water: 21.53 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.5 ft** **Pump Intake From TOC: 29.5 ft** **Estimated Total Volume Pumped: 10925 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 275 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1005

Water visually clear

Weather Conditions:
Sunny, 69 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 9:10 AM	00:00	6.97 pH	17.01 °C	1.25 mS/cm	5.50 mg/L	108.33 NTU	41.7 mV	21.53 ft	450.00 ml/min
10/2/2025 9:13 AM	02:18	6.84 pH	14.59 °C	1.28 mS/cm	0.18 mg/L	99.27 NTU	14.6 mV	21.64 ft	450.00 ml/min
10/2/2025 9:15 AM	04:36	6.84 pH	14.92 °C	1.28 mS/cm	0.10 mg/L	62.53 NTU	-3.2 mV	21.64 ft	275.00 ml/min
10/2/2025 9:17 AM	06:54	6.84 pH	15.57 °C	1.29 mS/cm	0.11 mg/L	32.03 NTU	-13.8 mV	21.64 ft	275.00 ml/min
10/2/2025 9:20 AM	09:12	6.81 pH	15.64 °C	1.29 mS/cm	0.10 mg/L	52.49 NTU	-21.1 mV	21.64 ft	275.00 ml/min
10/2/2025 9:22 AM	11:30	6.84 pH	15.65 °C	1.30 mS/cm	0.09 mg/L	49.62 NTU	-28.6 mV	21.53 ft	275.00 ml/min
10/2/2025 9:24 AM	13:48	6.86 pH	15.62 °C	1.30 mS/cm	0.09 mg/L	30.64 NTU	-33.7 mV	21.53 ft	275.00 ml/min
10/2/2025 9:27 AM	16:06	6.87 pH	15.73 °C	1.31 mS/cm	0.07 mg/L	21.79 NTU	-36.1 mV	21.53 ft	275.00 ml/min
10/2/2025 9:29 AM	18:24	6.87 pH	15.83 °C	1.31 mS/cm	0.07 mg/L	21.25 NTU	-38.5 mV	21.53 ft	275.00 ml/min
10/2/2025 9:31 AM	20:42	6.88 pH	15.97 °C	1.32 mS/cm	0.08 mg/L	22.62 NTU	-40.8 mV	21.53 ft	275.00 ml/min

10/2/2025 9:33 AM	23:00	6.86 pH	15.89 °C	1.32 mS/cm	0.08 mg/L	23.36 NTU	-41.1 mV	21.53 ft	275.00 ml/min
10/2/2025 9:36 AM	25:18	6.88 pH	15.88 °C	1.33 mS/cm	0.09 mg/L	28.70 NTU	-43.5 mV	21.53 ft	275.00 ml/min
10/2/2025 9:38 AM	27:36	6.89 pH	15.79 °C	1.33 mS/cm	0.10 mg/L	15.19 NTU	-44.8 mV	21.53 ft	275.00 ml/min
10/2/2025 9:40 AM	29:54	6.89 pH	15.90 °C	1.33 mS/cm	0.09 mg/L	9.30 NTU	-46.1 mV	21.53 ft	275.00 ml/min
10/2/2025 9:43 AM	32:12	6.90 pH	15.95 °C	1.33 mS/cm	0.10 mg/L	7.42 NTU	-47.8 mV	21.53 ft	275.00 ml/min
10/2/2025 9:45 AM	34:30	6.90 pH	16.00 °C	1.33 mS/cm	0.10 mg/L	5.37 NTU	-48.7 mV	21.53 ft	275.00 ml/min
10/2/2025 9:47 AM	36:48	6.88 pH	16.04 °C	1.33 mS/cm	0.10 mg/L	4.53 NTU	-48.6 mV	21.53 ft	275.00 ml/min

Samples

Sample ID:	Description:
MW156D-GW-1025	1L plastic w/ nitric x2 1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 10/2/2025 8:14:05 AM
Project: WSEC MW-157
Operator Name: Layne Lunsford

Location Name: MW-157 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.3 ft** **Total Depth: 25.3 ft** **Initial Depth to Water: 19.33 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 22.1 ft** **Pump Intake From TOC: 24 ft** **Estimated Total Volume Pumped: 2333.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 8:40

Weather Conditions:
Sunny 64°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 8:14 AM	00:00	6.80 pH	17.41 °C	1.43 mS/cm	4.45 mg/L	3.71 NTU	82.9 mV	19.33 ft	200.00 ml/min
10/2/2025 8:16 AM	02:20	6.64 pH	15.50 °C	1.31 mS/cm	1.03 mg/L	0.00 NTU	80.1 mV	19.33 ft	200.00 ml/min
10/2/2025 8:18 AM	04:40	6.64 pH	15.05 °C	1.29 mS/cm	0.67 mg/L	0.00 NTU	79.5 mV	19.33 ft	200.00 ml/min
10/2/2025 8:21 AM	07:00	6.65 pH	14.88 °C	1.29 mS/cm	0.55 mg/L	0.00 NTU	78.8 mV	19.33 ft	200.00 ml/min
10/2/2025 8:23 AM	09:20	6.65 pH	14.87 °C	1.29 mS/cm	0.46 mg/L	0.00 NTU	78.2 mV	19.33 ft	200.00 ml/min
10/2/2025 8:25 AM	11:40	6.65 pH	14.87 °C	1.29 mS/cm	0.43 mg/L	0.00 NTU	77.9 mV	19.33 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW157-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 9:00:46 AM
Project: WSEC MW-158
Operator Name: Layne Lunsford

Location Name: MW-158 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.35 ft** **Total Depth: 25.35 ft** **Initial Depth to Water: 18.9 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.77 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 2333.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 9:30

Weather Conditions:
Sunny 68°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 9:00 AM	00:00	6.62 pH	16.68 °C	1.80 mS/cm	1.38 mg/L	11.56 NTU	97.6 mV	18.90 ft	200.00 ml/min
10/2/2025 9:03 AM	02:20	6.62 pH	16.26 °C	1.76 mS/cm	0.90 mg/L	12.11 NTU	95.5 mV	18.90 ft	200.00 ml/min
10/2/2025 9:05 AM	04:40	6.62 pH	16.23 °C	1.76 mS/cm	0.80 mg/L	3.99 NTU	94.3 mV	18.90 ft	200.00 ml/min
10/2/2025 9:07 AM	07:00	6.62 pH	16.07 °C	1.76 mS/cm	0.78 mg/L	0.99 NTU	93.6 mV	18.90 ft	200.00 ml/min
10/2/2025 9:10 AM	09:20	6.63 pH	16.10 °C	1.76 mS/cm	0.79 mg/L	0.15 NTU	93.0 mV	18.90 ft	200.00 ml/min
10/2/2025 9:12 AM	11:40	6.63 pH	16.07 °C	1.76 mS/cm	0.80 mg/L	0.00 NTU	92.9 mV	18.90 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW158-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 9:40:34 AM
Project: WSEC MW-159
Operator Name: Layne Lunsford

Location Name: MW-159 **Well Diameter: 2 in** **Casing Type: Stainless steel** **Screen Length: 10 ft** **Top of Screen: 15.3 ft** **Total Depth: 25.3 ft** **Initial Depth to Water: 19 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 22.26 ft** **Pump Intake From TOC: 24.1 ft** **Estimated Total Volume Pumped: 8126.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 10:00

Weather Conditions:
Sunny 71°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 9:40 AM	00:00	6.93 pH	18.59 °C	1.23 mS/cm	5.63 mg/L	0.00 NTU	96.6 mV	19.00 ft	200.00 ml/min
10/2/2025 9:42 AM	02:20	6.78 pH	16.67 °C	1.24 mS/cm	1.49 mg/L	0.00 NTU	89.2 mV	19.00 ft	200.00 ml/min
10/2/2025 9:45 AM	04:40	6.78 pH	16.39 °C	1.24 mS/cm	1.01 mg/L	0.00 NTU	86.2 mV	19.00 ft	200.00 ml/min
10/2/2025 9:47 AM	07:00	6.78 pH	16.10 °C	1.24 mS/cm	0.79 mg/L	0.00 NTU	84.1 mV	19.00 ft	200.00 ml/min
10/2/2025 9:49 AM	08:59	6.78 pH	16.08 °C	1.24 mS/cm	0.13 mg/L	0.00 NTU	83.2 mV	19.00 ft	200.00 ml/min
10/2/2025 9:51 AM	11:18	6.78 pH	16.08 °C	1.15 mS/cm	0.70 mg/L	0.00 NTU	82.5 mV	19.00 ft	200.00 ml/min
10/2/2025 9:52 AM	12:24	6.80 pH	16.18 °C	1.15 mS/cm	0.71 mg/L	0.00 NTU	82.0 mV	19.00 ft	200.00 ml/min
10/2/2025 9:55 AM	14:44	6.80 pH	16.25 °C	1.15 mS/cm	0.69 mg/L	0.00 NTU	81.3 mV	19.00 ft	200.00 ml/min
10/2/2025 10:21 AM	40:38	7.62 pH	24.99 °C	0.00 mS/cm	5.53 mg/L	0.00 NTU	62.8 mV	19.00 ft	200.00 ml/min

Samples

Sample ID:	Description:

MW159-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 10:31:38 AM
Project: WSEC MW-190
Operator Name: Layne Lunsford

Location Name: MW-190 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.24 ft** **Total Depth: 27.24 ft** **Initial Depth to Water: 20.62 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.84 ft** **Pump Intake From TOC: 25.7 ft** **Estimated Total Volume Pumped: 2820 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 10:55

Weather Conditions:
Sunny 75°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 10:31 AM	00:00	6.72 pH	16.70 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	87.5 mV	20.62 ft	200.00 ml/min
10/2/2025 10:33 AM	02:21	6.73 pH	16.71 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	86.7 mV	20.62 ft	200.00 ml/min
10/2/2025 10:36 AM	04:42	6.75 pH	16.27 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	86.1 mV	20.62 ft	200.00 ml/min
10/2/2025 10:38 AM	07:03	6.75 pH	16.38 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	85.7 mV	20.62 ft	200.00 ml/min
10/2/2025 10:41 AM	09:24	6.76 pH	16.26 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	85.5 mV	20.62 ft	200.00 ml/min
10/2/2025 10:43 AM	11:45	6.77 pH	16.16 °C	1.27 mS/cm	0.00 mg/L	0.00 NTU	85.1 mV	20.62 ft	200.00 ml/min
10/2/2025 10:45 AM	14:06	6.77 pH	16.33 °C	1.26 mS/cm	0.00 mg/L	0.00 NTU	84.7 mV	20.62 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW190-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 11:15:19 AM
Project: WSEC MW-191
Operator Name: Layne Lunsford

Location Name: MW-191 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 16.16 ft** **Total Depth: 26.16 ft** **Initial Depth to Water: 21.92 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.03 ft** **Pump Intake From TOC: 24.9 ft** **Estimated Total Volume Pumped: 5640 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 12:00

Weather Conditions:
Sunny 78°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 11:15 AM	00:00	6.80 pH	21.36 °C	1.16 mS/cm	4.42 mg/L	0.02 NTU	84.4 mV	21.92 ft	200.00 ml/min
10/2/2025 11:17 AM	02:21	6.85 pH	18.05 °C	1.14 mS/cm	3.15 mg/L	0.00 NTU	86.3 mV	21.92 ft	200.00 ml/min
10/2/2025 11:20 AM	04:42	6.84 pH	17.41 °C	1.15 mS/cm	2.72 mg/L	0.00 NTU	87.6 mV	21.92 ft	200.00 ml/min
10/2/2025 11:22 AM	07:03	6.84 pH	17.53 °C	1.15 mS/cm	2.56 mg/L	0.00 NTU	87.9 mV	21.92 ft	200.00 ml/min
10/2/2025 11:24 AM	09:24	6.85 pH	17.06 °C	1.15 mS/cm	2.47 mg/L	0.00 NTU	87.6 mV	21.92 ft	200.00 ml/min
10/2/2025 11:27 AM	11:45	6.87 pH	16.84 °C	1.15 mS/cm	2.40 mg/L	0.00 NTU	87.6 mV	21.92 ft	200.00 ml/min
10/2/2025 11:29 AM	14:06	6.87 pH	16.88 °C	1.15 mS/cm	2.33 mg/L	0.00 NTU	87.8 mV	21.92 ft	200.00 ml/min
10/2/2025 11:31 AM	16:27	6.88 pH	16.54 °C	1.15 mS/cm	2.33 mg/L	0.00 NTU	87.8 mV	21.92 ft	200.00 ml/min
10/2/2025 11:34 AM	18:48	6.87 pH	16.81 °C	1.16 mS/cm	2.30 mg/L	0.00 NTU	87.6 mV	21.92 ft	200.00 ml/min
10/2/2025 11:36 AM	21:09	6.88 pH	16.65 °C	1.15 mS/cm	2.28 mg/L	0.00 NTU	87.6 mV	21.92 ft	200.00 ml/min
10/2/2025 11:38 AM	23:30	6.88 pH	16.93 °C	1.16 mS/cm	2.27 mg/L	0.00 NTU	87.1 mV	21.92 ft	200.00 ml/min
10/2/2025 11:41 AM	25:51	6.89 pH	17.11 °C	1.16 mS/cm	2.24 mg/L	0.00 NTU	86.7 mV	21.92 ft	200.00 ml/min

10/2/2025 11:43 AM	28:12	6.90 pH	17.00 °C	1.16 mS/cm	2.22 mg/L	0.00 NTU	86.2 mV	21.92 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW191-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 7:09:33 PM
Project: WSEC MW-227
Operator Name: Layne Lunsford

Location Name: MW-227 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.15 ft** **Total Depth: 24.15 ft** **Initial Depth to Water: 21.64 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.75 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 2800 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 1930

Weather Conditions:
Sunny 73°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 7:09 PM	00:00	6.91 pH	17.75 °C	1.13 mS/cm	6.60 mg/L	3.40 NTU	-58.6 mV	21.64 ft	200.00 ml/min
10/1/2025 7:11 PM	02:20	6.91 pH	16.28 °C	1.16 mS/cm	3.74 mg/L	0.00 NTU	-35.9 mV	21.64 ft	200.00 ml/min
10/1/2025 7:14 PM	04:40	6.90 pH	16.07 °C	1.17 mS/cm	3.25 mg/L	0.00 NTU	-23.5 mV	21.64 ft	200.00 ml/min
10/1/2025 7:16 PM	07:00	6.90 pH	16.00 °C	1.17 mS/cm	2.97 mg/L	0.00 NTU	-14.5 mV	21.64 ft	200.00 ml/min
10/1/2025 7:18 PM	09:20	6.89 pH	15.91 °C	1.17 mS/cm	2.84 mg/L	0.00 NTU	-7.4 mV	21.64 ft	200.00 ml/min
10/1/2025 7:21 PM	11:40	6.89 pH	15.89 °C	1.17 mS/cm	2.76 mg/L	0.00 NTU	-1.4 mV	21.64 ft	200.00 ml/min
10/1/2025 7:23 PM	14:00	6.89 pH	15.87 °C	1.16 mS/cm	2.68 mg/L	0.00 NTU	3.8 mV	21.64 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW227-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 6:10:24 PM
Project: WSEC MW-227D
Operator Name: Layne Lunsford

Location Name: MW-227D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 17.65 ft** **Total Depth: 32.65 ft** **Initial Depth to Water: 21.82 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.65 ft** **Pump Intake From TOC: 30.65 ft** **Estimated Total Volume Pumped: 8866.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 19:00

Weather Conditions:
Sunny 79°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 6:10 PM	00:00	7.06 pH	19.27 °C	1.04 mS/cm	4.94 mg/L	49.75 NTU	-48.3 mV	21.82 ft	200.00 ml/min
10/1/2025 6:12 PM	02:20	7.05 pH	15.84 °C	1.18 mS/cm	1.28 mg/L	83.09 NTU	-92.2 mV	21.82 ft	200.00 ml/min
10/1/2025 6:15 PM	04:40	7.02 pH	15.52 °C	1.18 mS/cm	0.97 mg/L	76.07 NTU	-101.4 mV	21.82 ft	200.00 ml/min
10/1/2025 6:17 PM	07:00	7.01 pH	15.47 °C	1.17 mS/cm	0.78 mg/L	60.72 NTU	-105.4 mV	21.82 ft	200.00 ml/min
10/1/2025 6:19 PM	09:20	7.00 pH	15.34 °C	1.15 mS/cm	0.83 mg/L	40.68 NTU	-106.8 mV	21.82 ft	200.00 ml/min
10/1/2025 6:22 PM	11:40	7.00 pH	15.34 °C	1.13 mS/cm	0.80 mg/L	29.61 NTU	-106.5 mV	21.82 ft	200.00 ml/min
10/1/2025 6:24 PM	14:00	6.99 pH	15.28 °C	1.12 mS/cm	0.78 mg/L	30.11 NTU	-105.1 mV	21.82 ft	200.00 ml/min
10/1/2025 6:26 PM	16:20	6.97 pH	15.12 °C	1.02 mS/cm	0.60 mg/L	18.32 NTU	-103.2 mV	21.82 ft	200.00 ml/min
10/1/2025 6:29 PM	18:40	6.97 pH	15.10 °C	1.11 mS/cm	0.61 mg/L	18.57 NTU	-102.0 mV	21.82 ft	200.00 ml/min
10/1/2025 6:31 PM	21:00	6.96 pH	15.12 °C	1.10 mS/cm	0.60 mg/L	16.82 NTU	-101.0 mV	21.82 ft	200.00 ml/min
10/1/2025 6:33 PM	23:20	6.96 pH	15.15 °C	1.10 mS/cm	0.54 mg/L	13.09 NTU	-100.7 mV	21.82 ft	200.00 ml/min

10/1/2025 6:36 PM	25:40	6.96 pH	15.15 °C	1.10 mS/cm	0.61 mg/L	11.00 NTU	-100.8 mV	21.82 ft	200.00 ml/min
10/1/2025 6:38 PM	28:00	6.96 pH	15.14 °C	1.10 mS/cm	0.62 mg/L	15.07 NTU	-100.8 mV	21.82 ft	200.00 ml/min
10/1/2025 6:40 PM	30:20	6.96 pH	15.11 °C	1.10 mS/cm	0.59 mg/L	10.37 NTU	-100.9 mV	21.82 ft	200.00 ml/min
10/1/2025 6:43 PM	32:40	6.97 pH	15.12 °C	1.10 mS/cm	0.64 mg/L	9.80 NTU	-101.3 mV	21.82 ft	200.00 ml/min
10/1/2025 6:45 PM	35:00	6.97 pH	15.08 °C	1.10 mS/cm	0.68 mg/L	9.78 NTU	-101.6 mV	21.82 ft	200.00 ml/min
10/1/2025 6:47 PM	37:20	6.98 pH	14.99 °C	1.10 mS/cm	0.60 mg/L	9.71 NTU	-102.0 mV	21.82 ft	200.00 ml/min
10/1/2025 6:50 PM	39:40	6.99 pH	15.02 °C	1.10 mS/cm	0.61 mg/L	6.98 NTU	-102.8 mV	21.82 ft	200.00 ml/min
10/1/2025 6:52 PM	42:00	7.00 pH	14.98 °C	1.10 mS/cm	0.73 mg/L	6.57 NTU	-103.0 mV	21.82 ft	200.00 ml/min
10/1/2025 6:54 PM	44:20	7.00 pH	14.93 °C	1.10 mS/cm	0.65 mg/L	4.98 NTU	-103.3 mV	21.82 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW227D-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 4:59:34 PM
Project: WSEC MW-240R
Operator Name: Layne Lunsford

Location Name: MW-240R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.36 ft** **Total Depth: 30.36 ft** **Initial Depth to Water: 21.9 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.7 ft** **Pump Intake From TOC: 29.6 ft** **Estimated Total Volume Pumped: 2880 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 17:30

Weather Conditions:
Sunny 81°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 4:59 PM	00:00	7.11 pH	21.26 °C	0.96 mS/cm	2.74 mg/L	0.23 NTU	60.5 mV	21.90 ft	200.00 ml/min
10/1/2025 5:01 PM	02:24	6.93 pH	18.85 °C	0.91 mS/cm	1.14 mg/L	0.00 NTU	59.8 mV	21.90 ft	200.00 ml/min
10/1/2025 5:04 PM	04:48	6.91 pH	17.99 °C	0.87 mS/cm	1.00 mg/L	0.00 NTU	61.1 mV	21.90 ft	200.00 ml/min
10/1/2025 5:06 PM	07:12	6.91 pH	17.85 °C	0.92 mS/cm	0.89 mg/L	0.00 NTU	61.3 mV	21.90 ft	200.00 ml/min
10/1/2025 5:09 PM	09:36	6.91 pH	17.48 °C	0.90 mS/cm	0.85 mg/L	0.00 NTU	63.2 mV	21.90 ft	200.00 ml/min
10/1/2025 5:11 PM	12:00	6.90 pH	17.34 °C	0.90 mS/cm	0.82 mg/L	0.00 NTU	61.8 mV	21.90 ft	200.00 ml/min
10/1/2025 5:13 PM	14:24	6.90 pH	17.29 °C	0.90 mS/cm	0.77 mg/L	0.00 NTU	63.8 mV	21.90 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW240R-GW-1025	

DUP04-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 5:35:36 PM
Project: WSEC MW-244
Operator Name: Paige Richards

Location Name: MW-244 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.9 ft** **Total Depth: 31.9 ft** **Initial Depth to Water: 25.27 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.82 ft** **Pump Intake From TOC: 30.7 ft** **Estimated Total Volume Pumped: 16916.666 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1850

Water visually clear

Weather Conditions:
Sunny, 80 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 5:35 PM	00:00	6.99 pH	19.53 °C	1.05 mS/cm	7.01 mg/L	7.06 NTU	86.0 mV	25.27 ft	250.00 ml/min
10/1/2025 5:38 PM	02:25	6.99 pH	15.71 °C	1.13 mS/cm	5.30 mg/L	12.54 NTU	97.6 mV	25.27 ft	250.00 ml/min
10/1/2025 5:40 PM	04:50	7.02 pH	15.07 °C	1.19 mS/cm	5.23 mg/L	6.95 NTU	102.1 mV	25.27 ft	250.00 ml/min
10/1/2025 5:42 PM	07:15	7.02 pH	14.74 °C	1.17 mS/cm	5.16 mg/L	5.24 NTU	106.2 mV	25.27 ft	250.00 ml/min
10/1/2025 5:45 PM	09:40	7.01 pH	14.81 °C	1.16 mS/cm	5.00 mg/L	3.63 NTU	109.6 mV	25.27 ft	250.00 ml/min
10/1/2025 5:47 PM	12:05	7.03 pH	14.75 °C	1.16 mS/cm	4.89 mg/L	1.32 NTU	110.3 mV	25.27 ft	250.00 ml/min
10/1/2025 5:50 PM	14:30	7.03 pH	14.95 °C	1.16 mS/cm	4.71 mg/L	0.30 NTU	111.8 mV	25.27 ft	250.00 ml/min
10/1/2025 5:52 PM	16:55	7.03 pH	14.73 °C	1.14 mS/cm	4.60 mg/L	0.30 NTU	112.3 mV	25.27 ft	250.00 ml/min
10/1/2025 5:54 PM	19:20	7.04 pH	14.61 °C	1.12 mS/cm	4.48 mg/L	0.38 NTU	113.3 mV	25.27 ft	250.00 ml/min
10/1/2025 5:57 PM	21:45	7.04 pH	14.72 °C	1.13 mS/cm	4.30 mg/L	0.29 NTU	113.9 mV	25.27 ft	250.00 ml/min

10/1/2025 5:59 PM	24:10	7.05 pH	14.61 °C	1.11 mS/cm	4.13 mg/L	0.33 NTU	113.7 mV	25.27 ft	250.00 ml/min
10/1/2025 6:02 PM	26:35	7.05 pH	14.46 °C	1.11 mS/cm	4.00 mg/L	0.36 NTU	114.1 mV	25.27 ft	250.00 ml/min
10/1/2025 6:04 PM	29:00	7.04 pH	14.49 °C	1.23 mS/cm	3.82 mg/L	0.43 NTU	114.6 mV	25.27 ft	250.00 ml/min
10/1/2025 6:07 PM	31:25	7.06 pH	14.56 °C	1.24 mS/cm	3.62 mg/L	0.34 NTU	113.1 mV	25.27 ft	250.00 ml/min
10/1/2025 6:09 PM	33:50	7.05 pH	14.44 °C	1.24 mS/cm	3.44 mg/L	0.40 NTU	113.5 mV	25.27 ft	250.00 ml/min
10/1/2025 6:11 PM	36:15	7.05 pH	14.52 °C	1.24 mS/cm	3.23 mg/L	0.34 NTU	113.4 mV	25.27 ft	250.00 ml/min
10/1/2025 6:14 PM	38:40	7.06 pH	14.35 °C	1.23 mS/cm	3.05 mg/L	0.44 NTU	112.8 mV	25.27 ft	250.00 ml/min
10/1/2025 6:16 PM	41:05	7.06 pH	14.21 °C	1.23 mS/cm	2.90 mg/L	0.45 NTU	112.6 mV	25.27 ft	250.00 ml/min
10/1/2025 6:19 PM	43:30	7.04 pH	14.52 °C	1.24 mS/cm	2.71 mg/L	0.40 NTU	112.5 mV	25.27 ft	250.00 ml/min
10/1/2025 6:21 PM	45:55	7.05 pH	14.32 °C	1.24 mS/cm	2.55 mg/L	0.38 NTU	111.8 mV	25.27 ft	250.00 ml/min
10/1/2025 6:23 PM	48:20	7.05 pH	14.48 °C	1.24 mS/cm	2.40 mg/L	0.31 NTU	111.8 mV	25.27 ft	250.00 ml/min
10/1/2025 6:26 PM	50:45	7.05 pH	14.62 °C	1.24 mS/cm	2.24 mg/L	0.41 NTU	111.2 mV	25.27 ft	250.00 ml/min
10/1/2025 6:28 PM	53:10	7.05 pH	14.64 °C	1.23 mS/cm	2.11 mg/L	0.48 NTU	110.9 mV	25.35 ft	250.00 ml/min
10/1/2025 6:31 PM	55:35	7.05 pH	14.51 °C	1.23 mS/cm	1.92 mg/L	0.40 NTU	110.8 mV	25.35 ft	250.00 ml/min
10/1/2025 6:33 PM	58:00	7.06 pH	14.51 °C	1.23 mS/cm	1.80 mg/L	0.47 NTU	109.8 mV	25.35 ft	250.00 ml/min
10/1/2025 6:36 PM	01:00:25	7.05 pH	14.50 °C	1.23 mS/cm	1.68 mg/L	0.50 NTU	109.8 mV	25.35 ft	250.00 ml/min
10/1/2025 6:38 PM	01:02:50	7.05 pH	14.56 °C	1.23 mS/cm	1.54 mg/L	0.39 NTU	109.5 mV	25.35 ft	250.00 ml/min
10/1/2025 6:40 PM	01:05:15	7.06 pH	14.41 °C	1.23 mS/cm	1.40 mg/L	0.31 NTU	108.6 mV	25.35 ft	250.00 ml/min
10/1/2025 6:43 PM	01:07:40	7.05 pH	14.30 °C	1.23 mS/cm	1.35 mg/L	0.42 NTU	108.4 mV	25.35 ft	250.00 ml/min

Samples

Sample ID:	Description:
MW244-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 10/2/2025 11:11:07 AM
Project: WSEC MW-245
Operator Name: Paige Richards

Location Name: MW-245 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.8 ft** **Total Depth: 33.8 ft** **Initial Depth to Water: 28.57 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.95 ft** **Pump Intake From TOC: 32.8 ft** **Estimated Total Volume Pumped: 5475 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 1.65 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1200

Water visually clear

Weather Conditions:
Sunny, 77 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 11:11 AM	00:00	6.71 pH	20.63 °C	1.61 mS/cm	2.95 mg/L	12.50 NTU	20.1 mV	28.57 ft	250.00 ml/min
10/2/2025 11:13 AM	02:26	6.60 pH	17.15 °C	1.70 mS/cm	0.37 mg/L	55.01 NTU	-9.5 mV	28.57 ft	250.00 ml/min
10/2/2025 11:15 AM	04:52	6.51 pH	17.13 °C	1.71 mS/cm	0.20 mg/L	26.38 NTU	0.5 mV	29.49 ft	250.00 ml/min
10/2/2025 11:18 AM	07:18	6.61 pH	16.96 °C	1.72 mS/cm	0.17 mg/L	15.36 NTU	-1.7 mV	29.49 ft	250.00 ml/min
10/2/2025 11:20 AM	09:44	6.62 pH	16.66 °C	1.71 mS/cm	0.12 mg/L	11.43 NTU	-5.7 mV	29.49 ft	250.00 ml/min
10/2/2025 11:23 AM	12:10	6.62 pH	16.97 °C	1.71 mS/cm	0.08 mg/L	4.07 NTU	-11.0 mV	29.49 ft	250.00 ml/min
10/2/2025 11:25 AM	14:36	6.68 pH	16.53 °C	1.71 mS/cm	0.07 mg/L	1.63 NTU	-18.1 mV	29.49 ft	250.00 ml/min
10/2/2025 11:28 AM	17:02	6.69 pH	16.36 °C	1.71 mS/cm	0.06 mg/L	1.25 NTU	-21.8 mV	29.49 ft	250.00 ml/min
10/2/2025 11:30 AM	19:28	6.70 pH	16.32 °C	1.71 mS/cm	0.05 mg/L	1.63 NTU	-25.3 mV	30.22 ft	250.00 ml/min
10/2/2025 11:33 AM	21:54	6.67 pH	16.31 °C	1.71 mS/cm	0.05 mg/L	0.87 NTU	-28.1 mV	30.22 ft	250.00 ml/min

Samples

Sample ID:	Description:
MW245-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1
MS/MSD	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/2/2025 7:19:12 AM
Project: WSEC MW-246
Operator Name: Paige Richards

Location Name: MW-246 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18 ft** **Total Depth: 33 ft** **Initial Depth to Water: 28.42 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.68 ft** **Pump Intake From TOC: 32.6 ft** **Estimated Total Volume Pumped: 3041.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.3 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 0745

Water visually clear

Weather Conditions:
Cloudy, 62 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 7:19 AM	00:00	6.71 pH	18.04 °C	1.04 mS/cm	4.04 mg/L	1.94 NTU	26.6 mV	28.42 ft	250.00 ml/min
10/2/2025 7:21 AM	02:26	6.58 pH	14.44 °C	0.98 mS/cm	0.34 mg/L	0.84 NTU	-78.8 mV	28.42 ft	250.00 ml/min
10/2/2025 7:24 AM	04:52	6.68 pH	13.98 °C	0.97 mS/cm	0.15 mg/L	0.63 NTU	-78.0 mV	28.72 ft	250.00 ml/min
10/2/2025 7:26 AM	07:18	6.68 pH	13.76 °C	0.97 mS/cm	0.08 mg/L	0.56 NTU	-75.0 mV	28.72 ft	250.00 ml/min
10/2/2025 7:28 AM	09:44	6.68 pH	13.88 °C	0.96 mS/cm	0.06 mg/L	0.45 NTU	-73.1 mV	28.72 ft	250.00 ml/min
10/2/2025 7:31 AM	12:10	6.75 pH	13.78 °C	0.97 mS/cm	0.04 mg/L	0.38 NTU	-75.3 mV	28.72 ft	250.00 ml/min

Samples

Sample ID:	Description:

MW246-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 10/2/2025 7:51:17 AM
Project: WSEC MW-247
Operator Name: Paige Richards

Location Name: MW-247 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.2 ft** **Total Depth: 33.2 ft** **Initial Depth to Water: 27.27 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.46 ft** **Pump Intake From TOC: 32.3 ft** **Estimated Total Volume Pumped: 3041.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.15 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 0815

Water visually clear, black sediment

Weather Conditions:
Partly cloudy, 62 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 7:51 AM	00:00	6.90 pH	16.00 °C	1.03 mS/cm	7.44 mg/L	0.55 NTU	45.5 mV	27.27 ft	250.00 ml/min
10/2/2025 7:53 AM	02:26	6.75 pH	14.14 °C	1.12 mS/cm	1.17 mg/L	1.63 NTU	64.5 mV	27.39 ft	250.00 ml/min
10/2/2025 7:56 AM	04:52	6.79 pH	13.88 °C	1.12 mS/cm	0.53 mg/L	1.65 NTU	64.5 mV	27.39 ft	250.00 ml/min
10/2/2025 7:58 AM	07:18	6.82 pH	13.83 °C	1.12 mS/cm	0.45 mg/L	0.25 NTU	57.9 mV	27.39 ft	250.00 ml/min
10/2/2025 8:01 AM	09:44	6.83 pH	13.87 °C	1.12 mS/cm	0.33 mg/L	0.30 NTU	50.3 mV	27.39 ft	250.00 ml/min
10/2/2025 8:03 AM	12:10	6.86 pH	13.91 °C	1.12 mS/cm	0.33 mg/L	0.34 NTU	41.1 mV	27.42 ft	250.00 ml/min

Samples

Sample ID:	Description:

MW247-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 10/2/2025 8:24:41 AM
Project: WSEC MW-248
Operator Name: Paige Richards

Location Name: MW-248 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 29.1 ft** **Total Depth: 34.1 ft** **Initial Depth to Water: 27.99 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 31.24 ft** **Pump Intake From TOC: 33.1 ft** **Estimated Total Volume Pumped: 4287.5 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 0900

Water visually clear, trace sediment

Weather Conditions:
Sunny, 62 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/2/2025 8:24 AM	00:00	7.10 pH	16.05 °C	0.95 mS/cm	7.44 mg/L	37.78 NTU	56.6 mV	27.99 ft	250.00 ml/min
10/2/2025 8:27 AM	02:27	6.87 pH	14.63 °C	1.00 mS/cm	1.00 mg/L	145.60 NTU	71.7 mV	28.02 ft	250.00 ml/min
10/2/2025 8:29 AM	04:54	6.83 pH	14.52 °C	1.00 mS/cm	0.31 mg/L	63.98 NTU	78.7 mV	28.02 ft	250.00 ml/min
10/2/2025 8:32 AM	07:21	6.87 pH	14.51 °C	1.00 mS/cm	0.18 mg/L	26.22 NTU	72.9 mV	28.02 ft	250.00 ml/min
10/2/2025 8:34 AM	09:48	6.88 pH	14.50 °C	1.00 mS/cm	0.13 mg/L	10.05 NTU	59.8 mV	28.02 ft	250.00 ml/min
10/2/2025 8:36 AM	12:15	6.88 pH	14.47 °C	1.00 mS/cm	0.11 mg/L	4.64 NTU	48.2 mV	28.02 ft	250.00 ml/min
10/2/2025 8:39 AM	14:42	6.87 pH	14.57 °C	1.00 mS/cm	0.10 mg/L	3.80 NTU	38.5 mV	28.02 ft	250.00 ml/min
10/2/2025 8:41 AM	17:09	6.91 pH	14.60 °C	0.99 mS/cm	0.09 mg/L	3.00 NTU	28.6 mV	28.02 ft	250.00 ml/min

Samples

Sample ID:	Description:
MW248-GW-1025	1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 10/1/2025 3:10:34 PM
Project: WSEC MW-250
Operator Name: Layne Lunsford

Location Name: MW-250 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.8 ft** **Total Depth: 30.8 ft** **Initial Depth to Water: 24.4 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.05 ft** **Pump Intake From TOC: 28.9 ft** **Estimated Total Volume Pumped: 2880 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:

Weather Conditions:
Sunny 82°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
10/1/2025 3:10 PM	00:00	6.63 pH	24.09 °C	1.21 mS/cm	2.80 mg/L	7.19 NTU	19.2 mV	24.40 ft	200.00 ml/min
10/1/2025 3:12 PM	02:24	6.62 pH	20.21 °C	1.29 mS/cm	0.94 mg/L	0.21 NTU	33.6 mV	24.40 ft	200.00 ml/min
10/1/2025 3:15 PM	04:48	6.60 pH	19.01 °C	1.26 mS/cm	0.63 mg/L	0.00 NTU	41.8 mV	24.40 ft	200.00 ml/min
10/1/2025 3:17 PM	07:12	6.60 pH	19.17 °C	1.26 mS/cm	0.57 mg/L	0.00 NTU	46.4 mV	24.40 ft	200.00 ml/min
10/1/2025 3:20 PM	09:36	6.59 pH	18.73 °C	1.25 mS/cm	0.48 mg/L	0.00 NTU	49.3 mV	24.40 ft	200.00 ml/min
10/1/2025 3:22 PM	12:00	6.60 pH	18.76 °C	1.25 mS/cm	0.41 mg/L	0.00 NTU	51.3 mV	24.40 ft	200.00 ml/min
10/1/2025 3:24 PM	14:24	6.60 pH	18.66 °C	1.25 mS/cm	0.40 mg/L	0.00 NTU	52.7 mV	24.40 ft	200.00 ml/min

Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/29/2025 5:23:44 PM
Project: WSEC TW-1
Operator Name: Layne Lunsford

Location Name: TW-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 8 ft** **Total Depth: 18 ft** **Initial Depth to Water: 8.73 ft**	**Pump Type: QED 1.75" Portable SamplePro Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 1813.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.02 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 1800

Weather Conditions:
Sunny 82°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
9/29/2025 5:23 PM	00:00	7.04 pH	19.20 °C	1.37 mS/cm	3.15 mg/L	33.83 NTU	-64.4 mV	8.73 ft	200.00 ml/min
9/29/2025 5:24 PM	01:08	7.02 pH	17.24 °C	1.41 mS/cm	1.50 mg/L	20.29 NTU	-80.8 mV	8.73 ft	200.00 ml/min
9/29/2025 5:26 PM	02:16	7.02 pH	16.51 °C	1.38 mS/cm	0.81 mg/L	7.77 NTU	-92.0 mV	9.60 ft	200.00 ml/min
9/29/2025 5:27 PM	03:24	7.02 pH	16.20 °C	1.31 mS/cm	0.47 mg/L	4.03 NTU	-99.1 mV	9.60 ft	200.00 ml/min
9/29/2025 5:28 PM	04:32	7.01 pH	15.95 °C	1.40 mS/cm	0.36 mg/L	0.88 NTU	-103.8 mV	9.75 ft	200.00 ml/min
9/29/2025 5:29 PM	05:40	7.01 pH	16.05 °C	1.40 mS/cm	0.27 mg/L	0.34 NTU	-107.7 mV	9.75 ft	200.00 ml/min
9/29/2025 5:30 PM	06:48	7.00 pH	16.06 °C	1.40 mS/cm	0.20 mg/L	0.07 NTU	-112.0 mV	9.75 ft	200.00 ml/min
9/29/2025 5:31 PM	07:56	7.01 pH	16.12 °C	1.40 mS/cm	0.22 mg/L	0.00 NTU	-114.0 mV	9.75 ft	200.00 ml/min
9/29/2025 5:32 PM	09:04	7.01 pH	16.01 °C	1.39 mS/cm	0.19 mg/L	0.00 NTU	-116.3 mV	9.75 ft	200.00 ml/min

Samples

Sample ID:	Description:
TW1-GW-1025	

Low-Flow Test Report:

Test Date / Time: 9/29/2025 2:58:22 PM
Project: WSEC TW-2
Operator Name: Layne Lunsford

Location Name: TW-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 8 ft** **Total Depth: 18 ft** **Initial Depth to Water: 11.36 ft**	**Pump Type: QED 1.75" Portable SamplePro Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 20733.334 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 4.42 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 16:50

Weather Conditions:
Sunny 90°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
9/29/2025 2:58 PM	00:00	7.25 pH	16.00 °C	1.68 mS/cm	0.11 mg/L	121.59 NTU	-196.3 mV	11.36 ft	200.00 ml/min
9/29/2025 3:00 PM	02:02	7.23 pH	16.14 °C	1.68 mS/cm	0.13 mg/L	129.87 NTU	-196.2 mV	11.36 ft	200.00 ml/min
9/29/2025 3:01 PM	03:10	7.17 pH	16.26 °C	1.68 mS/cm	0.08 mg/L	125.50 NTU	-209.3 mV	11.36 ft	200.00 ml/min
9/29/2025 3:02 PM	04:18	7.16 pH	16.61 °C	1.68 mS/cm	0.06 mg/L	130.35 NTU	-213.3 mV	11.36 ft	200.00 ml/min
9/29/2025 3:03 PM	05:26	7.15 pH	16.26 °C	1.68 mS/cm	0.06 mg/L	131.40 NTU	-215.9 mV	11.36 ft	200.00 ml/min
9/29/2025 3:04 PM	06:34	7.16 pH	16.16 °C	1.67 mS/cm	0.05 mg/L	126.26 NTU	-217.1 mV	11.36 ft	200.00 ml/min
9/29/2025 3:06 PM	07:42	7.15 pH	15.79 °C	1.67 mS/cm	0.05 mg/L	120.58 NTU	-216.7 mV	11.36 ft	200.00 ml/min
9/29/2025 3:07 PM	08:50	7.16 pH	15.63 °C	1.67 mS/cm	0.05 mg/L	123.77 NTU	-218.0 mV	11.36 ft	200.00 ml/min
9/29/2025 3:08 PM	09:58	7.16 pH	15.79 °C	1.68 mS/cm	0.03 mg/L	112.25 NTU	-220.9 mV	11.36 ft	200.00 ml/min
9/29/2025 3:09 PM	11:06	7.18 pH	15.41 °C	1.68 mS/cm	0.04 mg/L	108.36 NTU	-222.1 mV	11.36 ft	200.00 ml/min
9/29/2025 3:10 PM	12:14	7.19 pH	15.60 °C	1.67 mS/cm	0.05 mg/L	108.48 NTU	-222.6 mV	13.32 ft	200.00 ml/min

9/29/2025 3:11 PM	13:22	7.20 pH	15.24 °C	1.67 mS/cm	0.05 mg/L	100.67 NTU	-222.0 mV	13.45 ft	200.00 ml/min
9/29/2025 3:12 PM	14:30	7.19 pH	15.45 °C	1.67 mS/cm	0.05 mg/L	92.56 NTU	-221.9 mV	13.45 ft	200.00 ml/min
9/29/2025 3:14 PM	15:38	7.19 pH	15.27 °C	1.66 mS/cm	0.05 mg/L	89.15 NTU	-222.4 mV	13.45 ft	200.00 ml/min
9/29/2025 3:15 PM	16:46	7.18 pH	15.58 °C	1.65 mS/cm	0.05 mg/L	80.56 NTU	-220.5 mV	13.65 ft	200.00 ml/min
9/29/2025 3:18 PM	20:11	7.20 pH	16.39 °C	1.65 mS/cm	0.05 mg/L	79.38 NTU	-222.4 mV	13.98 ft	200.00 ml/min
9/29/2025 3:19 PM	21:19	7.17 pH	16.37 °C	1.64 mS/cm	0.03 mg/L	73.24 NTU	-225.1 mV	13.98 ft	200.00 ml/min
9/29/2025 3:20 PM	22:27	7.18 pH	16.01 °C	1.63 mS/cm	0.03 mg/L	71.09 NTU	-226.0 mV	14.10 ft	200.00 ml/min
9/29/2025 3:21 PM	23:35	7.19 pH	15.77 °C	1.63 mS/cm	0.05 mg/L	73.78 NTU	-223.8 mV	14.10 ft	200.00 ml/min
9/29/2025 3:23 PM	24:43	7.19 pH	15.69 °C	1.62 mS/cm	0.03 mg/L	65.20 NTU	-224.3 mV	14.10 ft	200.00 ml/min
9/29/2025 3:24 PM	25:51	7.20 pH	15.68 °C	1.61 mS/cm	0.06 mg/L	61.30 NTU	-220.8 mV	14.10 ft	200.00 ml/min
9/29/2025 3:25 PM	26:59	7.20 pH	15.40 °C	1.60 mS/cm	0.04 mg/L	59.19 NTU	-221.6 mV	14.10 ft	200.00 ml/min
9/29/2025 3:27 PM	28:52	7.24 pH	15.47 °C	1.60 mS/cm	0.02 mg/L	58.00 NTU	-223.1 mV	14.30 ft	200.00 ml/min
9/29/2025 3:28 PM	30:00	7.20 pH	15.39 °C	1.60 mS/cm	0.04 mg/L	53.05 NTU	-219.7 mV	14.30 ft	200.00 ml/min
9/29/2025 3:29 PM	31:08	7.20 pH	15.39 °C	1.59 mS/cm	0.02 mg/L	52.65 NTU	-221.2 mV	14.30 ft	200.00 ml/min
9/29/2025 3:30 PM	32:16	7.20 pH	15.28 °C	1.58 mS/cm	0.01 mg/L	44.05 NTU	-223.1 mV	14.30 ft	200.00 ml/min
9/29/2025 3:31 PM	33:24	7.19 pH	15.37 °C	1.57 mS/cm	0.01 mg/L	44.98 NTU	-222.6 mV	14.30 ft	200.00 ml/min
9/29/2025 3:32 PM	34:32	7.19 pH	15.61 °C	1.58 mS/cm	0.03 mg/L	43.26 NTU	-221.1 mV	14.30 ft	200.00 ml/min
9/29/2025 3:34 PM	35:40	7.20 pH	15.23 °C	1.57 mS/cm	0.04 mg/L	43.65 NTU	-218.7 mV	14.30 ft	200.00 ml/min
9/29/2025 3:35 PM	36:48	7.20 pH	15.29 °C	1.56 mS/cm	0.02 mg/L	38.43 NTU	-219.6 mV	14.57 ft	200.00 ml/min
9/29/2025 3:37 PM	39:15	7.26 pH	14.90 °C	1.55 mS/cm	0.03 mg/L	35.49 NTU	-215.1 mV	14.68 ft	200.00 ml/min
9/29/2025 3:38 PM	40:23	7.22 pH	15.02 °C	1.55 mS/cm	0.03 mg/L	34.00 NTU	-215.9 mV	14.68 ft	200.00 ml/min
9/29/2025 3:39 PM	41:31	7.21 pH	15.01 °C	1.55 mS/cm	0.01 mg/L	33.98 NTU	-218.7 mV	14.68 ft	200.00 ml/min
9/29/2025 3:41 PM	42:39	7.21 pH	15.19 °C	1.54 mS/cm	0.00 mg/L	32.16 NTU	-220.6 mV	14.68 ft	200.00 ml/min
9/29/2025 3:42 PM	43:47	7.21 pH	15.02 °C	1.54 mS/cm	0.01 mg/L	29.28 NTU	-220.0 mV	14.68 ft	200.00 ml/min
9/29/2025 3:43 PM	44:55	7.21 pH	15.07 °C	1.53 mS/cm	0.03 mg/L	28.58 NTU	-216.8 mV	14.68 ft	200.00 ml/min
9/29/2025 3:44 PM	46:22	7.25 pH	15.12 °C	1.53 mS/cm	0.02 mg/L	24.88 NTU	-216.1 mV	14.81 ft	200.00 ml/min
9/29/2025 3:45 PM	47:30	7.21 pH	15.19 °C	1.53 mS/cm	0.02 mg/L	25.11 NTU	-216.3 mV	14.81 ft	200.00 ml/min
9/29/2025 3:47 PM	49:07	7.24 pH	15.63 °C	1.52 mS/cm	0.01 mg/L	24.06 NTU	-216.6 mV	14.88 ft	200.00 ml/min
9/29/2025 3:48 PM	50:15	7.21 pH	15.68 °C	1.52 mS/cm	0.03 mg/L	22.53 NTU	-216.0 mV	14.88 ft	200.00 ml/min

9/29/2025 3:49 PM	51:23	7.22 pH	15.76 °C	1.52 mS/cm	0.03 mg/L	21.43 NTU	-214.6 mV	14.88 ft	200.00 ml/min
9/29/2025 3:50 PM	52:31	7.23 pH	15.40 °C	1.51 mS/cm	0.02 mg/L	20.23 NTU	-214.8 mV	14.88 ft	200.00 ml/min
9/29/2025 3:52 PM	53:39	7.24 pH	15.42 °C	1.51 mS/cm	0.02 mg/L	18.01 NTU	-215.9 mV	14.88 ft	200.00 ml/min
9/29/2025 3:53 PM	54:47	7.24 pH	15.42 °C	1.50 mS/cm	0.04 mg/L	16.85 NTU	-213.7 mV	14.88 ft	200.00 ml/min
9/29/2025 3:54 PM	55:43	7.29 pH	15.06 °C	1.50 mS/cm	0.03 mg/L	18.03 NTU	-213.0 mV	15.08 ft	200.00 ml/min
9/29/2025 3:55 PM	56:51	7.26 pH	15.12 °C	1.49 mS/cm	0.01 mg/L	16.36 NTU	-215.3 mV	15.08 ft	200.00 ml/min
9/29/2025 3:56 PM	57:59	7.26 pH	14.90 °C	1.49 mS/cm	0.00 mg/L	17.23 NTU	-216.7 mV	15.08 ft	200.00 ml/min
9/29/2025 3:57 PM	59:07	7.25 pH	15.08 °C	1.49 mS/cm	0.00 mg/L	13.50 NTU	-218.7 mV	15.08 ft	200.00 ml/min
9/29/2025 4:04 PM	01:06:01	7.31 pH	14.78 °C	1.45 mS/cm	0.04 mg/L	11.39 NTU	-212.5 mV	15.28 ft	200.00 ml/min
9/29/2025 4:05 PM	01:07:09	7.27 pH	14.86 °C	1.43 mS/cm	0.05 mg/L	10.85 NTU	-206.2 mV	15.28 ft	200.00 ml/min
9/29/2025 4:06 PM	01:08:17	7.26 pH	14.74 °C	1.43 mS/cm	0.02 mg/L	10.23 NTU	-210.4 mV	15.28 ft	200.00 ml/min
9/29/2025 4:07 PM	01:09:25	7.26 pH	14.73 °C	1.42 mS/cm	0.00 mg/L	9.75 NTU	-211.8 mV	15.28 ft	200.00 ml/min
9/29/2025 4:08 PM	01:10:33	7.26 pH	14.52 °C	1.42 mS/cm	0.01 mg/L	9.67 NTU	-212.1 mV	15.28 ft	200.00 ml/min
9/29/2025 4:10 PM	01:11:41	7.26 pH	14.58 °C	1.47 mS/cm	0.02 mg/L	9.26 NTU	-209.6 mV	15.28 ft	200.00 ml/min
9/29/2025 4:11 PM	01:12:49	7.26 pH	14.47 °C	1.47 mS/cm	0.02 mg/L	8.48 NTU	-209.4 mV	15.28 ft	200.00 ml/min
9/29/2025 4:12 PM	01:13:57	7.26 pH	14.52 °C	1.46 mS/cm	0.01 mg/L	8.75 NTU	-211.2 mV	15.28 ft	200.00 ml/min
9/29/2025 4:13 PM	01:15:05	7.26 pH	14.39 °C	1.46 mS/cm	0.00 mg/L	8.06 NTU	-211.4 mV	15.28 ft	200.00 ml/min
9/29/2025 4:14 PM	01:16:13	7.26 pH	14.67 °C	1.45 mS/cm	0.00 mg/L	8.30 NTU	-211.5 mV	15.28 ft	200.00 ml/min
9/29/2025 4:15 PM	01:17:21	7.25 pH	14.86 °C	1.44 mS/cm	0.00 mg/L	8.12 NTU	-211.4 mV	15.28 ft	200.00 ml/min
9/29/2025 4:16 PM	01:18:29	7.25 pH	14.99 °C	1.44 mS/cm	0.01 mg/L	7.87 NTU	-208.8 mV	15.28 ft	200.00 ml/min
9/29/2025 4:17 PM	01:19:37	7.25 pH	15.01 °C	1.43 mS/cm	0.04 mg/L	8.96 NTU	-205.8 mV	15.28 ft	200.00 ml/min
9/29/2025 4:20 PM	01:21:51	7.30 pH	14.93 °C	1.41 mS/cm	0.01 mg/L	7.04 NTU	-206.7 mV	15.28 ft	200.00 ml/min
9/29/2025 4:21 PM	01:22:59	7.26 pH	15.28 °C	1.41 mS/cm	0.01 mg/L	7.96 NTU	-206.9 mV	15.28 ft	200.00 ml/min
9/29/2025 4:22 PM	01:24:07	7.26 pH	15.18 °C	1.40 mS/cm	0.00 mg/L	7.78 NTU	-208.0 mV	15.28 ft	200.00 ml/min
9/29/2025 4:25 PM	01:26:38	7.30 pH	15.20 °C	1.38 mS/cm	0.00 mg/L	7.25 NTU	-208.7 mV	15.28 ft	200.00 ml/min
9/29/2025 4:26 PM	01:27:46	7.27 pH	15.43 °C	1.38 mS/cm	0.00 mg/L	8.41 NTU	-208.1 mV	15.28 ft	200.00 ml/min
9/29/2025 4:27 PM	01:28:59	7.28 pH	15.50 °C	1.37 mS/cm	0.00 mg/L	7.97 NTU	-207.2 mV	15.28 ft	200.00 ml/min
9/29/2025 4:28 PM	01:30:07	7.28 pH	15.31 °C	1.35 mS/cm	0.00 mg/L	6.39 NTU	-207.5 mV	15.28 ft	200.00 ml/min
9/29/2025 4:30 PM	01:31:44	7.30 pH	15.30 °C	1.35 mS/cm	0.00 mg/L	7.35 NTU	-207.5 mV	15.78 ft	200.00 ml/min

9/29/2025 4:31 PM	01:32:52	7.28 pH	15.30 °C	1.35 mS/cm	0.02 mg/L	10.03 NTU	-203.5 mV	15.78 ft	200.00 ml/min
9/29/2025 4:32 PM	01:34:00	7.29 pH	15.25 °C	1.34 mS/cm	0.00 mg/L	8.08 NTU	-204.4 mV	15.78 ft	200.00 ml/min
9/29/2025 4:33 PM	01:35:08	7.29 pH	15.05 °C	1.33 mS/cm	0.00 mg/L	6.95 NTU	-204.7 mV	15.78 ft	200.00 ml/min
9/29/2025 4:34 PM	01:36:16	7.30 pH	14.96 °C	1.32 mS/cm	0.00 mg/L	7.57 NTU	-205.8 mV	15.78 ft	200.00 ml/min
9/29/2025 4:35 PM	01:37:24	7.30 pH	14.94 °C	1.32 mS/cm	0.00 mg/L	6.86 NTU	-206.2 mV	15.78 ft	200.00 ml/min
9/29/2025 4:36 PM	01:38:32	7.30 pH	14.99 °C	1.32 mS/cm	0.00 mg/L	7.76 NTU	-206.5 mV	15.78 ft	200.00 ml/min
9/29/2025 4:38 PM	01:39:40	7.30 pH	14.88 °C	1.31 mS/cm	0.00 mg/L	6.76 NTU	-207.0 mV	15.78 ft	200.00 ml/min
9/29/2025 4:39 PM	01:41:24	7.33 pH	14.67 °C	1.31 mS/cm	0.00 mg/L	7.04 NTU	-207.3 mV	15.78 ft	200.00 ml/min
9/29/2025 4:40 PM	01:42:32	7.32 pH	14.67 °C	1.29 mS/cm	0.00 mg/L	6.72 NTU	-206.3 mV	15.78 ft	200.00 ml/min
9/29/2025 4:42 PM	01:43:40	7.32 pH	14.64 °C	1.28 mS/cm	0.00 mg/L	5.59 NTU	-205.2 mV	15.78 ft	200.00 ml/min

Samples

Sample ID:	Description:
TW2-GW-1025	

Low-Flow Test Report:

Test Date / Time: 9/29/2025 4:57:26 PM
Project: WSEC MW-34
Operator Name: Paige Richards

Location Name: MW-34 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 11.57 ft** **Total Depth: 18 ft** **Initial Depth to Water: 10.18 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 15.5 ft** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 27583.75 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sample time: 1905

Water slightly cloudy and yellow, turbidity after sample collection: 94.89 NTU

Weather Conditions:
Partly cloudy, 84 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
9/29/2025 4:57 PM	00:00	6.58 pH	16.06 °C	0.75 mS/cm	2.06 mg/L	1,703.1 NTU	-3.7 mV	10.18 ft	350.00 ml/min
9/29/2025 4:58 PM	01:09	6.32 pH	14.57 °C	0.74 mS/cm	0.27 mg/L	753.70 NTU	-28.8 mV	10.18 ft	350.00 ml/min
9/29/2025 4:59 PM	02:18	6.54 pH	15.18 °C	0.74 mS/cm	0.15 mg/L	416.23 NTU	-53.3 mV	10.18 ft	350.00 ml/min
9/29/2025 5:00 PM	03:27	6.76 pH	15.53 °C	0.74 mS/cm	0.13 mg/L	315.17 NTU	-70.8 mV	10.18 ft	175.00 ml/min
9/29/2025 5:02 PM	04:36	6.81 pH	16.29 °C	0.74 mS/cm	0.15 mg/L	451.95 NTU	-76.4 mV	10.18 ft	250.00 ml/min
9/29/2025 5:03 PM	05:45	6.83 pH	15.45 °C	0.74 mS/cm	0.13 mg/L	385.44 NTU	-79.1 mV	10.21 ft	250.00 ml/min
9/29/2025 5:04 PM	06:54	6.84 pH	15.55 °C	0.73 mS/cm	0.10 mg/L	429.18 NTU	-81.7 mV	10.21 ft	250.00 ml/min
9/29/2025 5:05 PM	08:03	6.83 pH	15.39 °C	0.73 mS/cm	0.10 mg/L	338.78 NTU	-82.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:06 PM	09:12	6.83 pH	15.05 °C	0.73 mS/cm	0.10 mg/L	377.29 NTU	-83.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:07 PM	10:21	6.84 pH	15.30 °C	0.73 mS/cm	0.08 mg/L	336.05 NTU	-83.9 mV	10.21 ft	250.00 ml/min

9/29/2025 5:08 PM	11:30	6.84 pH	15.06 °C	0.73 mS/cm	0.07 mg/L	300.84 NTU	-84.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:10 PM	12:39	6.84 pH	15.34 °C	0.73 mS/cm	0.08 mg/L	384.81 NTU	-85.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:11 PM	13:48	6.84 pH	15.23 °C	0.72 mS/cm	0.08 mg/L	346.02 NTU	-86.3 mV	10.21 ft	250.00 ml/min
9/29/2025 5:12 PM	14:57	6.84 pH	14.98 °C	0.72 mS/cm	0.06 mg/L	257.10 NTU	-87.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:13 PM	16:12	6.88 pH	15.31 °C	0.72 mS/cm	4.36 mg/L	608.17 NTU	-71.2 mV	10.21 ft	250.00 ml/min
9/29/2025 5:14 PM	17:21	6.85 pH	15.25 °C	0.72 mS/cm	0.31 mg/L	389.12 NTU	-81.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:15 PM	18:30	6.86 pH	15.06 °C	0.72 mS/cm	0.08 mg/L	265.37 NTU	-85.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:17 PM	19:39	6.86 pH	15.29 °C	0.72 mS/cm	0.05 mg/L	227.13 NTU	-87.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:18 PM	20:48	6.86 pH	15.18 °C	0.72 mS/cm	0.05 mg/L	213.19 NTU	-88.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:19 PM	21:57	6.85 pH	15.35 °C	0.72 mS/cm	0.04 mg/L	203.54 NTU	-90.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:20 PM	23:06	6.87 pH	15.24 °C	0.72 mS/cm	0.04 mg/L	184.90 NTU	-90.7 mV	10.21 ft	250.00 ml/min
9/29/2025 5:21 PM	24:15	6.86 pH	15.18 °C	0.72 mS/cm	0.04 mg/L	207.66 NTU	-90.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:22 PM	25:24	6.86 pH	15.25 °C	0.72 mS/cm	0.03 mg/L	163.22 NTU	-91.3 mV	10.21 ft	250.00 ml/min
9/29/2025 5:23 PM	26:33	6.86 pH	15.15 °C	0.72 mS/cm	0.03 mg/L	220.32 NTU	-91.7 mV	10.21 ft	250.00 ml/min
9/29/2025 5:25 PM	27:42	6.87 pH	15.25 °C	0.72 mS/cm	0.03 mg/L	168.05 NTU	-91.9 mV	10.21 ft	250.00 ml/min
9/29/2025 5:26 PM	28:51	6.87 pH	15.18 °C	0.72 mS/cm	0.03 mg/L	185.27 NTU	-92.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:27 PM	30:00	6.87 pH	14.99 °C	0.72 mS/cm	0.03 mg/L	188.09 NTU	-93.9 mV	10.21 ft	250.00 ml/min
9/29/2025 5:28 PM	31:09	6.87 pH	15.04 °C	0.72 mS/cm	0.03 mg/L	170.80 NTU	-94.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:29 PM	32:18	6.87 pH	15.01 °C	0.72 mS/cm	0.03 mg/L	157.03 NTU	-94.9 mV	10.21 ft	250.00 ml/min
9/29/2025 5:30 PM	33:27	6.88 pH	15.11 °C	0.72 mS/cm	0.03 mg/L	139.04 NTU	-96.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:32 PM	34:36	6.88 pH	15.11 °C	0.72 mS/cm	0.02 mg/L	165.13 NTU	-95.9 mV	10.21 ft	250.00 ml/min
9/29/2025 5:33 PM	35:45	6.88 pH	15.00 °C	0.72 mS/cm	0.02 mg/L	173.63 NTU	-96.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:34 PM	36:54	6.88 pH	15.21 °C	0.72 mS/cm	0.02 mg/L	159.94 NTU	-96.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:35 PM	38:03	6.89 pH	14.98 °C	0.72 mS/cm	0.02 mg/L	164.60 NTU	-96.6 mV	10.21 ft	250.00 ml/min
9/29/2025 5:36 PM	39:12	6.89 pH	15.09 °C	0.72 mS/cm	0.02 mg/L	158.10 NTU	-96.5 mV	10.21 ft	250.00 ml/min
9/29/2025 5:37 PM	40:21	6.89 pH	15.04 °C	0.72 mS/cm	0.02 mg/L	178.52 NTU	-97.2 mV	10.21 ft	250.00 ml/min
9/29/2025 5:38 PM	41:30	6.90 pH	15.17 °C	0.72 mS/cm	0.02 mg/L	186.60 NTU	-97.5 mV	10.21 ft	250.00 ml/min
9/29/2025 5:40 PM	42:39	6.90 pH	15.04 °C	0.72 mS/cm	0.02 mg/L	146.02 NTU	-97.9 mV	10.21 ft	250.00 ml/min
9/29/2025 5:41 PM	43:48	6.91 pH	14.90 °C	0.72 mS/cm	0.02 mg/L	163.80 NTU	-98.2 mV	10.21 ft	250.00 ml/min

9/29/2025 5:42 PM	44:57	6.91 pH	15.02 °C	0.72 mS/cm	0.02 mg/L	178.56 NTU	-98.5 mV	10.21 ft	250.00 ml/min
9/29/2025 5:43 PM	46:15	6.95 pH	15.52 °C	0.71 mS/cm	4.61 mg/L	140.64 NTU	-78.5 mV	10.21 ft	250.00 ml/min
9/29/2025 5:44 PM	47:24	6.91 pH	15.06 °C	0.72 mS/cm	0.32 mg/L	147.49 NTU	-88.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:45 PM	48:33	6.92 pH	14.79 °C	0.72 mS/cm	0.06 mg/L	153.11 NTU	-93.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:47 PM	49:42	6.92 pH	14.86 °C	0.72 mS/cm	0.03 mg/L	127.62 NTU	-95.0 mV	10.21 ft	250.00 ml/min
9/29/2025 5:48 PM	50:51	6.92 pH	14.72 °C	0.72 mS/cm	0.02 mg/L	133.22 NTU	-96.1 mV	10.21 ft	250.00 ml/min
9/29/2025 5:49 PM	52:00	6.93 pH	14.82 °C	0.72 mS/cm	0.02 mg/L	227.94 NTU	-96.6 mV	10.21 ft	250.00 ml/min
9/29/2025 5:50 PM	53:09	6.93 pH	14.78 °C	0.72 mS/cm	0.02 mg/L	169.94 NTU	-97.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:51 PM	54:18	6.93 pH	14.61 °C	0.72 mS/cm	0.01 mg/L	128.75 NTU	-98.1 mV	10.21 ft	250.00 ml/min
9/29/2025 5:52 PM	55:27	6.93 pH	14.70 °C	0.72 mS/cm	0.01 mg/L	141.07 NTU	-98.3 mV	10.21 ft	250.00 ml/min
9/29/2025 5:54 PM	56:36	6.93 pH	14.53 °C	0.72 mS/cm	0.01 mg/L	110.69 NTU	-98.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:55 PM	57:45	6.93 pH	14.67 °C	0.72 mS/cm	0.01 mg/L	114.66 NTU	-98.8 mV	10.21 ft	250.00 ml/min
9/29/2025 5:56 PM	58:54	6.93 pH	14.57 °C	0.72 mS/cm	0.01 mg/L	101.56 NTU	-99.1 mV	10.21 ft	250.00 ml/min
9/29/2025 5:57 PM	01:00:03	6.93 pH	14.62 °C	0.72 mS/cm	0.01 mg/L	102.95 NTU	-99.3 mV	10.21 ft	250.00 ml/min
9/29/2025 5:58 PM	01:01:12	6.94 pH	14.60 °C	0.72 mS/cm	0.01 mg/L	88.11 NTU	-99.4 mV	10.21 ft	250.00 ml/min
9/29/2025 5:59 PM	01:02:21	6.93 pH	14.63 °C	0.72 mS/cm	0.01 mg/L	128.81 NTU	-100.0 mV	10.21 ft	250.00 ml/min
9/29/2025 6:00 PM	01:03:30	6.94 pH	14.66 °C	0.72 mS/cm	0.01 mg/L	122.04 NTU	-100.4 mV	10.21 ft	250.00 ml/min
9/29/2025 6:02 PM	01:04:39	6.94 pH	14.63 °C	0.72 mS/cm	0.01 mg/L	117.13 NTU	-100.4 mV	10.21 ft	250.00 ml/min
9/29/2025 6:03 PM	01:05:48	6.94 pH	14.66 °C	0.72 mS/cm	0.01 mg/L	96.47 NTU	-100.6 mV	10.21 ft	250.00 ml/min
9/29/2025 6:04 PM	01:06:57	6.95 pH	14.61 °C	0.72 mS/cm	0.01 mg/L	98.74 NTU	-100.6 mV	10.21 ft	250.00 ml/min
9/29/2025 6:05 PM	01:08:06	6.95 pH	14.46 °C	0.72 mS/cm	0.01 mg/L	97.07 NTU	-100.8 mV	10.21 ft	250.00 ml/min
9/29/2025 6:06 PM	01:09:15	6.95 pH	14.59 °C	0.72 mS/cm	0.01 mg/L	100.32 NTU	-101.4 mV	10.21 ft	250.00 ml/min
9/29/2025 6:07 PM	01:10:24	6.95 pH	14.47 °C	0.72 mS/cm	0.01 mg/L	106.36 NTU	-101.6 mV	10.21 ft	250.00 ml/min
9/29/2025 6:08 PM	01:11:33	6.96 pH	14.58 °C	0.72 mS/cm	0.00 mg/L	117.07 NTU	-102.2 mV	10.21 ft	250.00 ml/min
9/29/2025 6:10 PM	01:12:42	6.96 pH	14.51 °C	0.72 mS/cm	0.00 mg/L	94.23 NTU	-102.2 mV	10.21 ft	250.00 ml/min
9/29/2025 6:11 PM	01:13:51	6.96 pH	14.33 °C	0.72 mS/cm	0.00 mg/L	98.23 NTU	-102.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:12 PM	01:15:00	6.97 pH	14.44 °C	0.72 mS/cm	0.00 mg/L	92.88 NTU	-102.0 mV	10.21 ft	250.00 ml/min
9/29/2025 6:14 PM	01:17:07	6.98 pH	14.59 °C	0.72 mS/cm	2.03 mg/L	130.54 NTU	-86.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:15 PM	01:18:16	6.97 pH	14.58 °C	0.72 mS/cm	0.16 mg/L	253.17 NTU	-93.0 mV	10.21 ft	250.00 ml/min

9/29/2025 6:16 PM	01:19:25	6.98 pH	14.48 °C	0.72 mS/cm	0.03 mg/L	213.34 NTU	-96.4 mV	10.21 ft	250.00 ml/min
9/29/2025 6:18 PM	01:20:34	6.98 pH	14.53 °C	0.72 mS/cm	0.09 mg/L	225.89 NTU	-97.0 mV	10.21 ft	250.00 ml/min
9/29/2025 6:19 PM	01:21:43	6.99 pH	14.41 °C	0.72 mS/cm	0.03 mg/L	141.34 NTU	-98.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:20 PM	01:22:52	6.98 pH	14.47 °C	0.72 mS/cm	0.01 mg/L	115.85 NTU	-99.5 mV	10.21 ft	250.00 ml/min
9/29/2025 6:21 PM	01:24:01	6.98 pH	14.47 °C	0.72 mS/cm	0.00 mg/L	115.91 NTU	-100.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:22 PM	01:25:10	6.98 pH	14.43 °C	0.72 mS/cm	0.00 mg/L	128.71 NTU	-100.8 mV	10.21 ft	250.00 ml/min
9/29/2025 6:23 PM	01:26:19	6.99 pH	14.45 °C	0.72 mS/cm	0.01 mg/L	115.14 NTU	-100.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:24 PM	01:27:28	6.99 pH	14.40 °C	0.72 mS/cm	0.00 mg/L	130.80 NTU	-101.0 mV	10.21 ft	250.00 ml/min
9/29/2025 6:26 PM	01:28:37	6.99 pH	14.44 °C	0.72 mS/cm	0.00 mg/L	106.88 NTU	-101.6 mV	10.21 ft	250.00 ml/min
9/29/2025 6:27 PM	01:29:46	7.00 pH	14.39 °C	0.72 mS/cm	0.00 mg/L	154.32 NTU	-102.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:28 PM	01:30:55	7.00 pH	14.32 °C	0.72 mS/cm	0.00 mg/L	131.48 NTU	-102.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:30 PM	01:33:12	7.04 pH	15.04 °C	0.71 mS/cm	2.90 mg/L	139.13 NTU	-83.5 mV	10.21 ft	250.00 ml/min
9/29/2025 6:31 PM	01:34:21	7.05 pH	14.56 °C	0.71 mS/cm	0.25 mg/L	128.46 NTU	-93.3 mV	10.21 ft	250.00 ml/min
9/29/2025 6:32 PM	01:35:30	7.07 pH	14.33 °C	0.71 mS/cm	0.04 mg/L	108.80 NTU	-97.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:34 PM	01:36:39	7.07 pH	14.27 °C	0.71 mS/cm	0.02 mg/L	117.96 NTU	-100.0 mV	10.21 ft	250.00 ml/min
9/29/2025 6:35 PM	01:37:48	7.07 pH	14.34 °C	0.71 mS/cm	0.01 mg/L	130.92 NTU	-101.5 mV	10.21 ft	250.00 ml/min
9/29/2025 6:36 PM	01:38:57	7.06 pH	14.23 °C	0.71 mS/cm	0.01 mg/L	118.02 NTU	-102.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:37 PM	01:40:06	7.06 pH	14.27 °C	0.72 mS/cm	0.00 mg/L	92.42 NTU	-102.6 mV	10.21 ft	250.00 ml/min
9/29/2025 6:38 PM	01:41:15	7.06 pH	14.18 °C	0.72 mS/cm	0.00 mg/L	96.45 NTU	-103.2 mV	10.21 ft	250.00 ml/min
9/29/2025 6:39 PM	01:42:24	7.05 pH	14.28 °C	0.72 mS/cm	0.00 mg/L	146.46 NTU	-103.4 mV	10.21 ft	250.00 ml/min
9/29/2025 6:40 PM	01:43:33	7.05 pH	14.24 °C	0.72 mS/cm	0.00 mg/L	116.12 NTU	-103.8 mV	10.21 ft	250.00 ml/min
9/29/2025 6:42 PM	01:44:42	7.06 pH	14.14 °C	0.72 mS/cm	0.00 mg/L	132.89 NTU	-103.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:43 PM	01:45:51	7.05 pH	14.21 °C	0.71 mS/cm	0.00 mg/L	113.19 NTU	-103.9 mV	10.21 ft	250.00 ml/min
9/29/2025 6:44 PM	01:47:00	7.05 pH	14.14 °C	0.72 mS/cm	0.00 mg/L	142.47 NTU	-103.8 mV	10.21 ft	250.00 ml/min
9/29/2025 6:45 PM	01:48:09	7.05 pH	14.22 °C	0.72 mS/cm	0.00 mg/L	178.64 NTU	-104.1 mV	10.21 ft	250.00 ml/min
9/29/2025 6:46 PM	01:49:18	7.05 pH	14.17 °C	0.71 mS/cm	0.00 mg/L	133.56 NTU	-104.5 mV	10.21 ft	250.00 ml/min

Samples

Sample ID:	Description:

MW34-GW-1025	1L plastic w/ nitric x2 1L plastic unpreserved x1 250mL plastic w/ nitric x1 250mL plastic unpreserved x1

Low-Flow Test Report:

Test Date / Time: 9/30/2025 9:12:50 AM
Project: WSEC MW-307
Operator Name: Layne Lunsford

Location Name: MW-307 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 10 ft** **Total Depth: 20 ft** **Initial Depth to Water: 16.63 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 17.5 ft** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 2563.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 9:40

Weather Conditions:
Cloudy 66°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
9/30/2025 9:12 AM	00:00	6.82 pH	15.21 °C	0.84 mS/cm	2.87 mg/L	0.28 NTU	71.2 mV	16.63 ft	200.00 ml/min
9/30/2025 9:14 AM	01:11	6.81 pH	14.91 °C	0.85 mS/cm	1.89 mg/L	0.00 NTU	70.4 mV	16.63 ft	200.00 ml/min
9/30/2025 9:15 AM	02:22	6.81 pH	14.72 °C	0.85 mS/cm	1.37 mg/L	0.00 NTU	69.8 mV	16.63 ft	200.00 ml/min
9/30/2025 9:16 AM	03:21	6.79 pH	14.64 °C	0.85 mS/cm	1.11 mg/L	0.00 NTU	69.0 mV	16.63 ft	200.00 ml/min
9/30/2025 9:17 AM	04:32	6.79 pH	14.69 °C	0.85 mS/cm	0.93 mg/L	0.00 NTU	68.8 mV	16.63 ft	200.00 ml/min
9/30/2025 9:18 AM	05:43	6.79 pH	14.63 °C	0.85 mS/cm	0.75 mg/L	0.00 NTU	68.3 mV	16.63 ft	200.00 ml/min
9/30/2025 9:19 AM	06:54	6.80 pH	14.58 °C	0.85 mS/cm	0.66 mg/L	0.00 NTU	67.8 mV	16.63 ft	200.00 ml/min
9/30/2025 9:20 AM	08:05	6.80 pH	14.62 °C	0.84 mS/cm	0.56 mg/L	0.00 NTU	67.7 mV	16.63 ft	200.00 ml/min
9/30/2025 9:22 AM	09:16	6.81 pH	14.63 °C	0.84 mS/cm	0.56 mg/L	0.84 NTU	67.7 mV	16.63 ft	200.00 ml/min
9/30/2025 9:23 AM	10:27	6.81 pH	14.61 °C	0.81 mS/cm	0.52 mg/L	0.00 NTU	67.3 mV	16.63 ft	200.00 ml/min
9/30/2025 9:24 AM	11:38	6.80 pH	14.59 °C	0.81 mS/cm	0.49 mg/L	0.00 NTU	67.1 mV	16.63 ft	200.00 ml/min

9/30/2025 9:25 AM	12:49	6.80 pH	14.62 °C	0.81 mS/cm	0.45 mg/L	0.37 NTU	67.3 mV	16.63 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW307-GW-1025	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 9/30/2025 8:10:17 AM
Project: WSEC MW-307D
Operator Name: Layne Lunsford

Location Name: MW-307D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 12.1 ft** **Total Depth: 27.1 ft** **Initial Depth to Water: 16.99 ft**	**Pump Type: Geotech 166PVC18 Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 23.1 ft** **Pump Intake From TOC: 25.1 ft** **Estimated Total Volume Pumped: 2366.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 250 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time 900

Weather Conditions:
Cloudy 61°

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
9/30/2025 8:10 AM	00:00	6.94 pH	16.66 °C	0.77 mS/cm	5.93 mg/L	0.10 NTU	66.8 mV	16.99 ft	250.00 ml/min
9/30/2025 8:11 AM	01:11	6.86 pH	15.33 °C	0.71 mS/cm	2.86 mg/L	0.00 NTU	65.7 mV	16.99 ft	250.00 ml/min
9/30/2025 8:12 AM	02:22	6.86 pH	14.02 °C	0.81 mS/cm	1.65 mg/L	0.00 NTU	59.9 mV	16.99 ft	250.00 ml/min
9/30/2025 8:13 AM	03:33	6.86 pH	13.66 °C	0.81 mS/cm	1.33 mg/L	0.00 NTU	59.2 mV	16.99 ft	250.00 ml/min
9/30/2025 8:15 AM	04:44	6.86 pH	13.50 °C	0.81 mS/cm	1.30 mg/L	0.00 NTU	61.1 mV	16.99 ft	250.00 ml/min
9/30/2025 8:16 AM	05:55	6.86 pH	13.48 °C	0.84 mS/cm	1.27 mg/L	0.00 NTU	62.6 mV	16.99 ft	250.00 ml/min
9/30/2025 8:17 AM	07:06	6.86 pH	13.50 °C	0.84 mS/cm	1.17 mg/L	0.00 NTU	62.7 mV	16.99 ft	250.00 ml/min
9/30/2025 8:18 AM	08:17	6.85 pH	13.45 °C	0.84 mS/cm	1.19 mg/L	0.00 NTU	62.7 mV	16.99 ft	250.00 ml/min
9/30/2025 8:19 AM	09:28	6.86 pH	13.43 °C	0.83 mS/cm	1.19 mg/L	0.00 NTU	61.9 mV	16.99 ft	250.00 ml/min

Samples

Sample ID:	Description:
MW307D-GW-1025	
MW307D-GW-1025 MS	
MW307D-GW-1025 MSD	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 12/9/2025 2:43:17 PM
Project: WSEC MW-108
Operator Name: Paige Richards

Location Name: MW-108 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 15.48 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.45 ft** **Pump Intake From TOC: 23.3 ft** **Estimated Total Volume Pumped: 6506.667 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.48 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 1031091**

Test Notes:
Sample time: 1525

Water visually clear

Weather Conditions:
Cloudy, 48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 2:43 PM	00:00	7.12 pH	13.77 °C	1.55 mS/cm	2.45 mg/L	197.82 NTU	-79.3 mV	15.48 ft	400.00 ml/min
12/9/2025 2:45 PM	02:20	7.09 pH	13.48 °C	1.59 mS/cm	0.23 mg/L	115.78 NTU	-113.9 mV	16.05 ft	200.00 ml/min
12/9/2025 2:47 PM	04:40	7.09 pH	13.05 °C	1.59 mS/cm	0.23 mg/L	43.08 NTU	-111.2 mV	16.05 ft	200.00 ml/min
12/9/2025 2:50 PM	07:00	7.08 pH	12.88 °C	1.59 mS/cm	0.20 mg/L	27.60 NTU	-112.2 mV	16.15 ft	200.00 ml/min
12/9/2025 2:52 PM	09:20	7.08 pH	12.92 °C	1.59 mS/cm	0.15 mg/L	17.92 NTU	-115.5 mV	16.15 ft	200.00 ml/min
12/9/2025 2:54 PM	11:40	7.07 pH	12.87 °C	1.59 mS/cm	0.12 mg/L	19.21 NTU	-119.1 mV	16.35 ft	200.00 ml/min
12/9/2025 2:57 PM	14:00	7.09 pH	12.63 °C	1.59 mS/cm	0.11 mg/L	11.99 NTU	-121.9 mV	16.35 ft	200.00 ml/min
12/9/2025 2:59 PM	16:20	7.07 pH	12.82 °C	1.59 mS/cm	0.08 mg/L	10.71 NTU	-124.9 mV	16.35 ft	200.00 ml/min
12/9/2025 3:01 PM	18:40	7.07 pH	12.79 °C	1.59 mS/cm	0.07 mg/L	16.52 NTU	-126.4 mV	16.35 ft	200.00 ml/min
12/9/2025 3:04 PM	20:52	7.12 pH	12.75 °C	1.59 mS/cm	1.80 mg/L	89.63 NTU	-111.1 mV	16.50 ft	200.00 ml/min

12/9/2025 3:06 PM	23:12	7.05 pH	12.74 °C	1.59 mS/cm	0.12 mg/L	12.84 NTU	-127.8 mV	16.50 ft	200.00 ml/min
12/9/2025 3:08 PM	25:32	7.02 pH	12.64 °C	1.60 mS/cm	0.08 mg/L	8.19 NTU	-132.8 mV	16.50 ft	200.00 ml/min
12/9/2025 3:11 PM	27:52	7.03 pH	12.81 °C	1.60 mS/cm	0.06 mg/L	5.46 NTU	-136.6 mV	16.81 ft	200.00 ml/min
12/9/2025 3:13 PM	30:12	7.05 pH	12.83 °C	1.61 mS/cm	0.06 mg/L	4.97 NTU	-138.9 mV	16.96 ft	200.00 ml/min

Samples

Sample ID:	Description:
MW108-GW-1225	1L plastic unpreserved x1

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 12/9/2025 2:59:29 PM
Project: WSEC MW-105
Operator Name: Brooke Wasson

Location Name: MW-105 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 15.84 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.76 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 12600 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1535

Weather Conditions:
51 degrees F mostly cloudy

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 2:59 PM	00:00	6.942 pH	13.37 °C	1.702 mS/cm	8.993 mg/L	93.16 NTU	71.0 mV	15.84 ft	300.0 ml/min
12/9/2025 3:01 PM	02:20	6.665 pH	14.35 °C	1.787 mS/cm	1.065 mg/L	366.2 NTU	88.3 mV	15.84 ft	300.0 ml/min
12/9/2025 3:04 PM	04:40	6.649 pH	14.58 °C	1.788 mS/cm	0.936 mg/L	111.6 NTU	89.9 mV	15.84 ft	300.0 ml/min
12/9/2025 3:06 PM	07:00	6.647 pH	14.62 °C	1.788 mS/cm	1.192 mg/L	62.91 NTU	89.8 mV	15.84 ft	300.0 ml/min
12/9/2025 3:08 PM	09:20	6.648 pH	14.55 °C	1.790 mS/cm	1.342 mg/L	87.86 NTU	90.0 mV	15.84 ft	300.0 ml/min
12/9/2025 3:11 PM	11:40	6.646 pH	14.54 °C	1.782 mS/cm	1.047 mg/L	60.17 NTU	89.1 mV	15.84 ft	300.0 ml/min
12/9/2025 3:13 PM	14:00	6.647 pH	14.58 °C	1.781 mS/cm	0.795 mg/L	64.61 NTU	88.2 mV	15.84 ft	300.0 ml/min
12/9/2025 3:15 PM	16:20	6.651 pH	14.57 °C	1.779 mS/cm	1.008 mg/L	49.07 NTU	87.8 mV	15.84 ft	300.0 ml/min
12/9/2025 3:18 PM	18:40	6.656 pH	14.57 °C	1.774 mS/cm	1.047 mg/L	43.62 NTU	87.5 mV	15.84 ft	300.0 ml/min
12/9/2025 3:20 PM	21:00	6.666 pH	14.57 °C	1.772 mS/cm	1.179 mg/L	29.04 NTU	86.2 mV	15.84 ft	300.0 ml/min
12/9/2025 3:22 PM	23:20	6.652 pH	14.57 °C	1.766 mS/cm	0.957 mg/L	32.39 NTU	85.3 mV	15.84 ft	300.0 ml/min
12/9/2025 3:25 PM	25:40	6.656 pH	14.54 °C	1.773 mS/cm	0.971 mg/L	19.04 NTU	85.2 mV	15.84 ft	300.0 ml/min

12/9/2025 3:27 PM	28:00	6.657 pH	14.56 °C	1.765 mS/cm	1.102 mg/L	20.51 NTU	85.1 mV	15.84 ft	300.0 ml/min
12/9/2025 3:29 PM	30:20	6.663 pH	14.59 °C	1.761 mS/cm	0.938 mg/L	13.39 NTU	83.9 mV	15.84 ft	300.0 ml/min
12/9/2025 3:32 PM	32:40	6.666 pH	14.58 °C	1.758 mS/cm	1.162 mg/L	8.494 NTU	83.7 mV	15.84 ft	300.0 ml/min
12/9/2025 3:34 PM	35:00	6.669 pH	14.61 °C	1.755 mS/cm	0.890 mg/L	8.891 NTU	81.7 mV	15.84 ft	300.0 ml/min
12/9/2025 3:36 PM	37:20	6.675 pH	14.58 °C	1.753 mS/cm	1.023 mg/L	6.493 NTU	82.1 mV	15.84 ft	300.0 ml/min
12/9/2025 3:39 PM	39:40	6.679 pH	14.61 °C	1.754 mS/cm	1.185 mg/L	7.614 NTU	81.5 mV	15.84 ft	300.0 ml/min
12/9/2025 3:41 PM	42:00	6.665 pH	14.58 °C	1.749 mS/cm	0.885 mg/L	4.856 NTU	82.4 mV	15.84 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW105-GW-1225	

Low-Flow Test Report:

Test Date / Time: 12/9/2025 4:00:45 PM
Project: WSEC MW-133
Operator Name: Brooke Wasson

Location Name: MW-133 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 15.46 ft** **Total Depth: 25.46 ft** **Initial Depth to Water: 17.59 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 21.76 ft** **Pump Intake From TOC: 23.6 ft** **Estimated Total Volume Pumped: 6300 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:

Weather Conditions:
50 degrees F partly sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 4:00 PM	00:00	6.792 pH	14.01 °C	2.020 mS/cm	4.324 mg/L	547.8 NTU	55.9 mV	17.59 ft	300.0 ml/min
12/9/2025 4:03 PM	02:20	6.628 pH	14.72 °C	2.187 mS/cm	0.390 mg/L	720.8 NTU	15.1 mV	17.59 ft	300.0 ml/min
12/9/2025 4:05 PM	04:40	6.631 pH	14.78 °C	2.197 mS/cm	0.246 mg/L	279.6 NTU	2.0 mV	17.59 ft	300.0 ml/min
12/9/2025 4:07 PM	07:00	6.636 pH	14.85 °C	2.178 mS/cm	0.236 mg/L	120.1 NTU	-6.7 mV	17.59 ft	300.0 ml/min
12/9/2025 4:10 PM	09:20	6.658 pH	14.92 °C	2.147 mS/cm	0.207 mg/L	47.28 NTU	-13.5 mV	17.59 ft	300.0 ml/min
12/9/2025 4:12 PM	11:40	6.670 pH	14.88 °C	2.109 mS/cm	0.190 mg/L	27.77 NTU	-18.2 mV	17.59 ft	300.0 ml/min
12/9/2025 4:14 PM	14:00	6.681 pH	14.83 °C	2.069 mS/cm	0.212 mg/L	16.02 NTU	-21.8 mV	17.59 ft	300.0 ml/min
12/9/2025 4:17 PM	16:20	6.698 pH	14.87 °C	2.043 mS/cm	0.208 mg/L	9.235 NTU	-24.6 mV	17.59 ft	300.0 ml/min
12/9/2025 4:19 PM	18:40	6.709 pH	14.84 °C	2.021 mS/cm	0.187 mg/L	6.082 NTU	-27.3 mV	17.59 ft	300.0 ml/min
12/9/2025 4:21 PM	21:00	6.721 pH	14.82 °C	2.000 mS/cm	0.205 mg/L	4.991 NTU	-30.4 mV	17.59 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW133-GW-1225	

Low-Flow Test Report:

Test Date / Time: 12/9/2025 4:30:18 PM
Project: WSEC MW-250
Operator Name: Brooke Wasson

Location Name: MW-250 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.8 ft** **Total Depth: 30.8 ft** **Initial Depth to Water: 24.59 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.05 ft** **Pump Intake From TOC: 28.9 ft** **Estimated Total Volume Pumped: 2880 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.1 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1640

Weather Conditions:
49 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 4:30 PM	00:00	6.788 pH	12.44 °C	1.780 mS/cm	7.211 mg/L	2.367 NTU	61.2 mV	24.59 ft	300.0 ml/min
12/9/2025 4:32 PM	02:24	6.555 pH	13.72 °C	1.890 mS/cm	0.544 mg/L	3.289 NTU	82.7 mV	24.69 ft	300.0 ml/min
12/9/2025 4:35 PM	04:48	6.535 pH	13.81 °C	1.899 mS/cm	0.180 mg/L	0.570 NTU	86.9 mV	24.69 ft	300.0 ml/min
12/9/2025 4:37 PM	07:12	6.534 pH	13.83 °C	1.895 mS/cm	0.078 mg/L	0.789 NTU	88.9 mV	24.69 ft	300.0 ml/min
12/9/2025 4:39 PM	09:36	6.525 pH	13.77 °C	1.905 mS/cm	0.038 mg/L	0.688 NTU	90.8 mV	24.69 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW250-GW-1225	

Low-Flow Test Report:

Test Date / Time: 12/9/2025 4:55:20 PM
Project: WSEC MW-240R
Operator Name: Brooke Wasson

Location Name: MW-240R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 15.36 ft** **Total Depth: 30.36 ft** **Initial Depth to Water: 22.34 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 27.7 ft** **Pump Intake From TOC: 29.6 ft** **Estimated Total Volume Pumped: 2400 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1705

Weather Conditions:
49 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 4:55 PM	00:00	7.075 pH	11.75 °C	1.430 mS/cm	9.558 mg/L	0.621 NTU	158.7 mV	22.34 ft	200.0 ml/min
12/9/2025 4:57 PM	02:24	6.853 pH	13.70 °C	1.375 mS/cm	0.213 mg/L	154.4 NTU	125.8 mV	22.40 ft	200.0 ml/min
12/9/2025 5:00 PM	04:48	6.836 pH	13.86 °C	1.399 mS/cm	0.154 mg/L	20.21 NTU	114.0 mV	22.40 ft	200.0 ml/min
12/9/2025 5:02 PM	07:12	6.825 pH	13.83 °C	1.423 mS/cm	0.031 mg/L	5.136 NTU	107.6 mV	22.40 ft	200.0 ml/min
12/9/2025 5:04 PM	09:36	6.815 pH	13.86 °C	1.445 mS/cm	0.008 mg/L	1.330 NTU	103.4 mV	22.40 ft	200.0 ml/min
12/9/2025 5:07 PM	12:00	6.819 pH	13.77 °C	1.462 mS/cm	0.018 mg/L	0.969 NTU	100.1 mV	22.40 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW240R-GW-1225	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 12/9/2025 5:27:50 PM
Project: WSEC MW-156
Operator Name: Brooke Wasson

Location Name: MW-156 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13 ft** **Total Depth: 23 ft** **Initial Depth to Water: 22.09 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 19.8 ft** **Pump Intake From TOC: 21.7 ft** **Estimated Total Volume Pumped: 2300 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1740

Weather Conditions:
48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 5:27 PM	00:00	7.023 pH	9.112 °C	0.043 mS/cm	9.425 mg/L	2.241 NTU	117.9 mV	22.09 ft	200.0 ml/min
12/9/2025 5:30 PM	02:18	6.714 pH	11.13 °C	1.757 mS/cm	3.928 mg/L	0.557 NTU	118.8 mV	22.09 ft	200.0 ml/min
12/9/2025 5:32 PM	04:36	6.647 pH	11.83 °C	1.741 mS/cm	2.270 mg/L	0.764 NTU	115.2 mV	22.09 ft	200.0 ml/min
12/9/2025 5:34 PM	06:54	6.625 pH	11.94 °C	1.750 mS/cm	1.715 mg/L	0.875 NTU	112.3 mV	22.09 ft	200.0 ml/min
12/9/2025 5:37 PM	09:12	6.612 pH	11.98 °C	1.757 mS/cm	1.411 mg/L	1.117 NTU	109.9 mV	22.09 ft	200.0 ml/min
12/9/2025 5:39 PM	11:30	6.605 pH	11.95 °C	1.766 mS/cm	1.247 mg/L	1.119 NTU	108.0 mV	22.09 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW156-GW-1225	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 12/9/2025 5:52:01 PM
Project: WSEC MW-245
Operator Name: Brooke Wasson

Location Name: MW-245 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.8 ft** **Total Depth: 33.8 ft** **Initial Depth to Water: 29.57 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.95 ft** **Pump Intake From TOC: 32.8 ft** **Estimated Total Volume Pumped: 1460 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1800

Weather Conditions:
48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 5:52 PM	00:00	6.726 pH	12.88 °C	2.262 mS/cm	5.187 mg/L	103.5 NTU	51.9 mV	29.57 ft	200.0 ml/min
12/9/2025 5:54 PM	02:26	6.655 pH	13.58 °C	2.296 mS/cm	0.356 mg/L	37.98 NTU	19.7 mV	29.57 ft	200.0 ml/min
12/9/2025 5:56 PM	04:52	6.633 pH	13.69 °C	2.322 mS/cm	0.245 mg/L	3.807 NTU	26.3 mV	29.57 ft	200.0 ml/min
12/9/2025 5:59 PM	07:18	6.634 pH	13.73 °C	2.322 mS/cm	0.250 mg/L	2.408 NTU	20.2 mV	29.57 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW245-GW-1225	
DP01-GW-1225	

Created using VuSitu from In-Situ, Inc.

Low-Flow Test Report:

Test Date / Time: 12/9/2025 6:16:18 PM
Project: WSEC MW-244
Operator Name: Brooke Wasson

Location Name: MW-244 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 16.9 ft** **Total Depth: 31.9 ft** **Initial Depth to Water: 27.02 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 28.82 ft** **Pump Intake From TOC: 30.7 ft** **Estimated Total Volume Pumped: 1933.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.1 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1825

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 6:16 PM	00:00	6.922 pH	12.52 °C	1.588 mS/cm	3.132 mg/L	128.3 NTU	99.6 mV	27.02 ft	200.0 ml/min
12/9/2025 6:18 PM	02:25	6.830 pH	12.66 °C	1.565 mS/cm	0.408 mg/L	25.97 NTU	92.8 mV	27.12 ft	200.0 ml/min
12/9/2025 6:21 PM	04:50	6.832 pH	12.70 °C	1.546 mS/cm	0.102 mg/L	5.060 NTU	90.8 mV	27.12 ft	200.0 ml/min
12/9/2025 6:23 PM	07:15	6.837 pH	12.74 °C	1.545 mS/cm	0.055 mg/L	2.086 NTU	89.6 mV	27.12 ft	200.0 ml/min
12/9/2025 6:25 PM	09:40	6.830 pH	12.68 °C	1.545 mS/cm	0.037 mg/L	0.859 NTU	84.0 mV	27.12 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW244-GW-1225	

Low-Flow Test Report:

Test Date / Time: 12/9/2025 6:34:40 PM
Project: WSEC MW-247
Operator Name: Brooke Wasson

Location Name: MW-247 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 18.2 ft** **Total Depth: 33.2 ft** **Initial Depth to Water: 28.85 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 30.46 ft** **Pump Intake From TOC: 32.3 ft** **Estimated Total Volume Pumped: 2920 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0.05 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1845

Weather Conditions:
48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 6:34 PM	00:00	6.819 pH	12.82 °C	1.478 mS/cm	5.634 mg/L	29.35 NTU	98.0 mV	28.85 ft	300.0 ml/min
12/9/2025 6:37 PM	02:26	6.707 pH	12.81 °C	1.486 mS/cm	1.580 mg/L	13.71 NTU	94.5 mV	28.90 ft	300.0 ml/min
12/9/2025 6:39 PM	04:52	6.690 pH	12.91 °C	1.494 mS/cm	0.149 mg/L	3.304 NTU	82.4 mV	28.90 ft	300.0 ml/min
12/9/2025 6:41 PM	07:18	6.712 pH	12.91 °C	1.507 mS/cm	0.112 mg/L	0.734 NTU	68.8 mV	28.90 ft	300.0 ml/min
12/9/2025 6:44 PM	09:44	6.711 pH	12.92 °C	1.522 mS/cm	0.103 mg/L	0.746 NTU	57.4 mV	28.90 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW247 GW-1225	

Low-Flow Test Report:

Test Date / Time: 12/9/2025 6:52:37 PM
Project: WSEC MW-248
Operator Name: Brooke Wasson

Location Name: MW-248 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 15 ft** **Top of Screen: 29.1 ft** **Total Depth: 34.1 ft** **Initial Depth to Water: 29.45 ft**	**Pump Type: Geotech Bladder Pump** **Tubing Type: Twin bonded 1/4" x 1/4" tubing** **Tubing Inner Diameter: 0.125 in** **Tubing Length: 31.24 ft** **Pump Intake From TOC: 33.1 ft** **Estimated Total Volume Pumped: 4900 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 600** **Serial Number: 876572**

Test Notes:
Sampled 1920

Weather Conditions:
48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.2	+/- 0.2	+/- 3 %	+/- 0.2	+/- 10	+/- 20	+/- 5	
12/9/2025 6:52 PM	00:00	7.058 pH	12.57 °C	1.308 mS/cm	7.991 mg/L	26.87 NTU	73.5 mV	29.45 ft	200.0 ml/min
12/9/2025 6:55 PM	02:27	6.742 pH	13.14 °C	1.398 mS/cm	1.072 mg/L	29.01 NTU	49.7 mV	29.48 ft	200.0 ml/min
12/9/2025 6:57 PM	04:54	6.727 pH	13.19 °C	1.397 mS/cm	0.087 mg/L	232.4 NTU	54.0 mV	29.49 ft	200.0 ml/min
12/9/2025 6:59 PM	07:21	6.724 pH	13.26 °C	1.395 mS/cm	0.190 mg/L	99.04 NTU	50.5 mV	29.51 ft	200.0 ml/min
12/9/2025 7:02 PM	09:48	6.729 pH	13.15 °C	1.391 mS/cm	0.057 mg/L	50.49 NTU	48.7 mV	29.51 ft	200.0 ml/min
12/9/2025 7:04 PM	12:15	6.724 pH	13.21 °C	1.392 mS/cm	0.032 mg/L	63.01 NTU	48.5 mV	29.51 ft	200.0 ml/min
12/9/2025 7:07 PM	14:42	6.721 pH	13.23 °C	1.389 mS/cm	0.075 mg/L	38.05 NTU	47.7 mV	29.51 ft	200.0 ml/min
12/9/2025 7:09 PM	17:09	6.718 pH	13.23 °C	1.387 mS/cm	0.028 mg/L	17.51 NTU	46.5 mV	29.51 ft	200.0 ml/min
12/9/2025 7:12 PM	19:36	6.732 pH	13.18 °C	1.389 mS/cm	0.030 mg/L	18.70 NTU	44.1 mV	29.51 ft	200.0 ml/min
12/9/2025 7:14 PM	22:03	6.727 pH	13.17 °C	1.383 mS/cm	0.012 mg/L	7.440 NTU	42.1 mV	29.51 ft	200.0 ml/min
12/9/2025 7:17 PM	24:30	6.728 pH	13.19 °C	1.385 mS/cm	0.009 mg/L	6.378 NTU	40.4 mV	29.51 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW248-GW-1225	

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 2/20/2025 3:26:11 PM

JOB DESCRIPTION

MEC WSEC Deep Well Baseline
MEC WSEC Deep Well Baseline

JOB NUMBER

310-299279-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
2/20/2025 3:26:11 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 21
QC Sample Results 22
QC Association 28
Chronicle 31
Certification Summary 34
Method Summary 36
Chain of Custody 37
Receipt Checklists 40
Tracer Carrier Summary 41

Job ID: 310-299279-1 Eurofins Cedar Falls

Job Narrative
310-299279-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/24/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.3°C and 4.6°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW05D-GW-0125 (310-299279-1), MW22D-GW-0125 (310-299279-2), MW156D-GW-0125 (310-299279-3), MW227D-GW-0125 (310-299279-4), MW307D-GW-0125 (310-299279-5) and DP01-GW-0125 (310-299279-6). Elevated reporting limits (RLs) are provided.

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

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

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

Job ID: 310-299279-2 Eurofins Cedar Falls

Job Narrative
310-299279-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/24/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.3°C and 4.6°C.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-299279-1	MW05D-GW-0125	Water	01/22/25 16:45	01/24/25 16:00
310-299279-2	MW22D-GW-0125	Water	01/23/25 11:30	01/24/25 16:00
310-299279-3	MW156D-GW-0125	Water	01/23/25 13:45	01/24/25 16:00
310-299279-4	MW227D-GW-0125	Water	01/23/25 15:00	01/24/25 16:00
310-299279-5	MW307D-GW-0125	Water	01/23/25 08:25	01/24/25 16:00
310-299279-6	DP01-GW-0125	Water	01/23/25 00:00	01/24/25 16:00

Detection Summary

Client: GHD Services Inc.
Project/Site: MEC WSEC Deep Well Baseline

Job ID: 310-299279-1

Client Sample ID: MW05D-GW-0125 — Lab Sample ID: 310-299279-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	173	F1	5.00		mg/L	5		9056A	Total/NA
Sulfate	215		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00756		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0599		0.00200		mg/L	1		6020B	Total/NA
Boron	1.86		0.100		mg/L	1		6020B	Total/NA
Calcium	153		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00112		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0162		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0240		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	882		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW22D-GW-0125 — Lab Sample ID: 310-299279-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	63.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0289		0.00200		mg/L	1		6020B	Total/NA
Barium	0.141		0.00200		mg/L	1		6020B	Total/NA
Boron	0.301		0.100		mg/L	1		6020B	Total/NA
Calcium	103		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00108		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0303		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00890		0.00200		mg/L	1		6020B	Total/NA
Thallium	0.00126		0.00100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	564		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW156D-GW-0125 — Lab Sample ID: 310-299279-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	52.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	299		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00361		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0711		0.00200		mg/L	1		6020B	Total/NA
Boron	0.202		0.100		mg/L	1		6020B	Total/NA
Calcium	236		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00302		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0879		0.0100		mg/L	1		6020B	Total/NA
Selenium	0.00981		0.00500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1060		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW227D-GW-0125 — Lab Sample ID: 310-299279-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	175		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0107		0.00200		mg/L	1		6020B	Total/NA
Barium	0.279		0.00200		mg/L	1		6020B	Total/NA
Boron	0.152		0.100		mg/L	1		6020B	Total/NA
Calcium	152		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW227D-GW-0125 (Continued)
Lab Sample ID: 310-299279-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00124		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0665		0.0100		mg/L	1		6020B	Total/NA
Selenium	0.0105		0.00500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	740		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW307D-GW-0125
Lab Sample ID: 310-299279-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	49.1		5.00		mg/L	5		9056A	Total/NA
Barium	0.195		0.00200		mg/L	1		6020B	Total/NA
Boron	0.246		0.100		mg/L	1		6020B	Total/NA
Calcium	116		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000855		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0811		0.0100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	534		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP01-GW-0125
Lab Sample ID: 310-299279-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	37.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	63.2		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0288		0.00200		mg/L	1		6020B	Total/NA
Barium	0.140		0.00200		mg/L	1		6020B	Total/NA
Boron	0.254		0.100		mg/L	1		6020B	Total/NA
Calcium	105		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00106		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0303		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00812		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	608		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: MW05D-GW-0125
Lab Sample ID: 310-299279-1
Date Collected: 01/22/25 16:45
Matrix: Water
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**173**	**F1**	5.00		mg/L			01/30/25 18:19	5
Fluoride	<1.00		1.00		mg/L			01/30/25 18:19	5
Sulfate	**215**		5.00		mg/L			01/30/25 18:19	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:48	1
Arsenic	**0.00756**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:48	1
Barium	**0.0599**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:48	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 15:48	1
Boron	**1.86**		0.100		mg/L		01/28/25 08:30	01/28/25 15:48	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 15:48	1
Calcium	**153**		0.500		mg/L		01/28/25 08:30	01/28/25 15:48	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:48	1
Cobalt	**0.00112**		0.000500		mg/L		01/28/25 08:30	01/28/25 15:48	1
Lithium	**0.0162**		0.0100		mg/L		01/28/25 08:30	01/28/25 15:48	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 15:48	1
Molybdenum	**0.0240**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:48	1
Selenium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:48	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 15:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**882**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.4**	**HF**	1.0		SU			01/24/25 16:10	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.159	U	0.101	0.101	1.00	0.159	pCi/L	01/29/25 07:50	02/20/25 09:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*87.5*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:45*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.618	U	0.345	0.345	1.00	0.618	pCi/L	01/29/25 09:58	02/17/25 12:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*87.5*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:28*	*1*
Y Carrier	*81.9*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:28*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC WSEC Deep Well Baseline

Job ID: 310-299279-1

Client Sample ID: MW05D-GW-0125

Date Collected: 01/22/25 16:45
Date Received: 01/24/25 16:00

Lab Sample ID: 310-299279-1

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.618	U	0.359	0.359	5.00	0.618	pCi/L		02/19/25 17:02	1

Client Sample ID: MW22D-GW-0125 Lab Sample ID: 310-299279-2

Date Collected: 01/23/25 11:30 **Matrix: Water**
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.5**		5.00		mg/L			01/30/25 18:52	5
Fluoride	<1.00		1.00		mg/L			01/30/25 18:52	5
Sulfate	**63.6**		5.00		mg/L			01/30/25 18:52	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:58	1
Arsenic	**0.0289**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:58	1
Barium	**0.141**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:58	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 15:58	1
Boron	**0.301**		0.100		mg/L		01/28/25 08:30	01/28/25 15:58	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 15:58	1
Calcium	**103**		0.500		mg/L		01/28/25 08:30	01/28/25 15:58	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:58	1
Cobalt	**0.00108**		0.000500		mg/L		01/28/25 08:30	01/28/25 15:58	1
Lithium	**0.0303**		0.0100		mg/L		01/28/25 08:30	01/28/25 15:58	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 15:58	1
Molybdenum	**0.00890**		0.00200		mg/L		01/28/25 08:30	01/28/25 15:58	1
Selenium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:58	1
Thallium	**0.00126**		0.00100		mg/L		01/28/25 08:30	01/28/25 15:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**564**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.3**	**HF**	1.0		SU			01/24/25 16:12	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.340**		0.172	0.175	1.00	0.221	pCi/L	01/29/25 07:50	02/20/25 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.9*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.729	U	0.472	0.475	1.00	0.729	pCi/L	01/29/25 09:58	02/17/25 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.9*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*
Y Carrier	*80.0*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC WSEC Deep Well Baseline

Job ID: 310-299279-1

Client Sample ID: MW22D-GW-0125

Date Collected: 01/23/25 11:30
Date Received: 01/24/25 16:00

Lab Sample ID: 310-299279-2

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.960		0.502	0.506	5.00	0.729	pCi/L		02/19/25 17:02	1

Client Sample ID: MW156D-GW-0125 Lab Sample ID: 310-299279-3

Date Collected: 01/23/25 13:45 **Matrix: Water**
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.3**		5.00		mg/L			01/30/25 19:03	5
Fluoride	<1.00		1.00		mg/L			01/30/25 19:03	5
Sulfate	**299**		5.00		mg/L			01/30/25 19:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:00	1
Arsenic	**0.00361**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:00	1
Barium	**0.0711**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:00	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:00	1
Boron	**0.202**		0.100		mg/L		01/28/25 08:30	01/28/25 16:00	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 16:00	1
Calcium	**236**		0.500		mg/L		01/28/25 08:30	01/28/25 16:00	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:00	1
Cobalt	**0.00302**		0.000500		mg/L		01/28/25 08:30	01/28/25 16:00	1
Lithium	**0.0879**		0.0100		mg/L		01/28/25 08:30	01/28/25 16:00	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 16:00	1
Molybdenum	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:00	1
Selenium	**0.00981**		0.00500		mg/L		01/28/25 08:30	01/28/25 16:00	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1060**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.0**	**HF**	1.0		SU			01/24/25 16:16	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.206**		0.134	0.135	1.00	0.183	pCi/L	01/29/25 07:50	02/20/25 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.2*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.32**		0.531	0.545	1.00	0.696	pCi/L	01/29/25 09:58	02/17/25 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.2*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*
Y Carrier	*80.0*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC WSEC Deep Well Baseline

Job ID: 310-299279-1

Client Sample ID: MW156D-GW-0125

Date Collected: 01/23/25 13:45
Date Received: 01/24/25 16:00

Lab Sample ID: 310-299279-3

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.548	0.561	5.00	0.696	pCi/L		02/19/25 17:02	1

Client Sample ID: MW227D-GW-0125 — Lab Sample ID: 310-299279-4

Date Collected: 01/23/25 15:00 — **Matrix: Water**
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.5**		5.00		mg/L			01/30/25 19:25	5
Fluoride	<1.00		1.00		mg/L			01/30/25 19:25	5
Sulfate	**175**		5.00		mg/L			01/30/25 19:25	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:03	1
Arsenic	**0.0107**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:03	1
Barium	**0.279**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:03	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:03	1
Boron	**0.152**		0.100		mg/L		01/28/25 08:30	01/28/25 16:03	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 16:03	1
Calcium	**152**		0.500		mg/L		01/28/25 08:30	01/28/25 16:03	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:03	1
Cobalt	**0.00124**		0.000500		mg/L		01/28/25 08:30	01/28/25 16:03	1
Lithium	**0.0665**		0.0100		mg/L		01/28/25 08:30	01/28/25 16:03	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 16:03	1
Molybdenum	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:03	1
Selenium	**0.0105**		0.00500		mg/L		01/28/25 08:30	01/28/25 16:03	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**740**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.0**	**HF**	1.0		SU			01/24/25 16:17	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.216**		0.142	0.143	1.00	0.199	pCi/L	01/29/25 07:50	02/20/25 09:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.8*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.846**		0.508	0.514	1.00	0.759	pCi/L	01/29/25 09:58	02/17/25 12:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.8*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:24*	*1*
Y Carrier	*82.2*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:24*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: MW227D-GW-0125
Lab Sample ID: 310-299279-4

Date Collected: 01/23/25 15:00
Matrix: Water
Date Received: 01/24/25 16:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.06		0.527	0.534	5.00	0.759	pCi/L		02/19/25 17:02	1

Client Sample ID: MW307D-GW-0125 — Lab Sample ID: 310-299279-5

Date Collected: 01/23/25 08:25 — **Matrix: Water**
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			01/30/25 19:36	5
Fluoride	<1.00		1.00		mg/L			01/30/25 19:36	5
Sulfate	**49.1**		5.00		mg/L			01/30/25 19:36	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:15	1
Arsenic	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:15	1
Barium	**0.195**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:15	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:15	1
Boron	**0.246**		0.100		mg/L		01/28/25 08:30	01/28/25 16:15	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 16:15	1
Calcium	**116**		0.500		mg/L		01/28/25 08:30	01/28/25 16:15	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:15	1
Cobalt	**0.000855**		0.000500		mg/L		01/28/25 08:30	01/28/25 16:15	1
Lithium	**0.0811**		0.0100		mg/L		01/28/25 08:30	01/28/25 16:15	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 16:15	1
Molybdenum	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:15	1
Selenium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:15	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**534**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.0**	**HF**	1.0		SU			01/24/25 16:14	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.492**		0.237	0.241	1.00	0.295	pCi/L	01/29/25 07:50	02/20/25 09:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*78.8*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:55*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.987	U	0.560	0.560	1.00	0.987	pCi/L	01/29/25 09:58	02/17/25 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*78.8*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*
Y Carrier	*80.0*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: MW307D-GW-0125
Lab Sample ID: 310-299279-5

Date Collected: 01/23/25 08:25
Matrix: Water

Date Received: 01/24/25 16:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.987	U	0.608	0.610	5.00	0.987	pCi/L		02/19/25 17:02	1

Client Sample ID: DP01-GW-0125 — Lab Sample ID: 310-299279-6

Date Collected: 01/23/25 00:00 — **Matrix: Water**
Date Received: 01/24/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.3**		5.00		mg/L			01/30/25 20:09	5
Fluoride	<1.00		1.00		mg/L			01/30/25 20:09	5
Sulfate	**63.2**		5.00		mg/L			01/30/25 20:09	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 16:17	1
Arsenic	**0.0288**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:17	1
Barium	**0.140**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:17	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:17	1
Boron	**0.254**		0.100		mg/L		01/28/25 08:30	01/28/25 16:17	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 16:17	1
Calcium	**105**		0.500		mg/L		01/28/25 08:30	01/28/25 16:17	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:17	1
Cobalt	**0.00106**		0.000500		mg/L		01/28/25 08:30	01/28/25 16:17	1
Lithium	**0.0303**		0.0100		mg/L		01/28/25 08:30	01/28/25 16:17	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 16:17	1
Molybdenum	**0.00812**		0.00200		mg/L		01/28/25 08:30	01/28/25 16:17	1
Selenium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 16:17	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 16:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**608**		50.0		mg/L			01/28/25 11:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			01/24/25 16:13	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.182**		0.120	0.122	1.00	0.162	pCi/L	01/29/25 07:50	02/20/25 09:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.3*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:55*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.678**		0.443	0.448	1.00	0.666	pCi/L	01/29/25 09:58	02/17/25 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.3*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*
Y Carrier	*83.4*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:25*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC WSEC Deep Well Baseline

Job ID: 310-299279-1

Client Sample ID: DP01-GW-0125

Date Collected: 01/23/25 00:00
Date Received: 01/24/25 16:00

Lab Sample ID: 310-299279-6

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.860		0.459	0.464	5.00	0.666	pCi/L		02/19/25 17:02	1

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-445932/3
Matrix: Water
Analysis Batch: 445932

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			01/30/25 15:43	1
Fluoride	<0.200		0.200		mg/L			01/30/25 15:43	1
Sulfate	<1.00		1.00		mg/L			01/30/25 15:43	1

Lab Sample ID: LCS 310-445932/37
Matrix: Water
Analysis Batch: 445932

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.05		mg/L		101	90 - 110
Fluoride	2.00	2.022		mg/L		101	90 - 110
Sulfate	10.0	9.590		mg/L		96	90 - 110

Lab Sample ID: 310-299279-1 MS
Matrix: Water
Analysis Batch: 445932

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	173	F1	50.0	202.6	F1	mg/L		58	80 - 120
Fluoride	<1.00		10.0	9.470		mg/L		95	80 - 120
Sulfate	215		50.0	248.9	4	mg/L		68	80 - 120

Lab Sample ID: 310-299279-1 MSD
Matrix: Water
Analysis Batch: 445932

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	173	F1	50.0	206.0	F1	mg/L		65	80 - 120	2	15
Fluoride	<1.00		10.0	9.680		mg/L		97	80 - 120	2	15
Sulfate	215		50.0	254.1	4	mg/L		78	80 - 120	2	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-445542/1-A
Matrix: Water
Analysis Batch: 445653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:44	1
Arsenic	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:44	1
Barium	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:44	1
Beryllium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 15:44	1
Boron	<0.100		0.100		mg/L		01/28/25 08:30	01/28/25 15:44	1
Cadmium	<0.000200		0.000200		mg/L		01/28/25 08:30	01/28/25 15:44	1
Calcium	<0.500		0.500		mg/L		01/28/25 08:30	01/28/25 15:44	1
Chromium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:44	1
Cobalt	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 15:44	1
Lithium	<0.0100		0.0100		mg/L		01/28/25 08:30	01/28/25 15:44	1
Lead	<0.000500		0.000500		mg/L		01/28/25 08:30	01/28/25 15:44	1
Molybdenum	<0.00200		0.00200		mg/L		01/28/25 08:30	01/28/25 15:44	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-445542/1-A
Matrix: Water
Analysis Batch: 445653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00500		0.00500		mg/L		01/28/25 08:30	01/28/25 15:44	1
Thallium	<0.00100		0.00100		mg/L		01/28/25 08:30	01/28/25 15:44	1

Lab Sample ID: LCS 310-445542/2-A
Matrix: Water
Analysis Batch: 445653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2215		mg/L		111	80 - 120
Arsenic	0.200	0.2076		mg/L		104	80 - 120
Barium	0.100	0.1062		mg/L		106	80 - 120
Beryllium	0.100	0.09523		mg/L		95	80 - 120
Boron	0.200	0.1922		mg/L		96	80 - 120
Cadmium	0.100	0.1027		mg/L		103	80 - 120
Calcium	2.00	1.747		mg/L		87	80 - 120
Chromium	0.100	0.1008		mg/L		101	80 - 120
Cobalt	0.100	0.1016		mg/L		102	80 - 120
Lithium	0.200	0.1990		mg/L		100	80 - 120
Lead	0.200	0.2061		mg/L		103	80 - 120
Molybdenum	0.200	0.1976		mg/L		99	80 - 120
Selenium	0.400	0.3851		mg/L		96	80 - 120
Thallium	0.100	0.09071		mg/L		91	80 - 120

Lab Sample ID: 310-299279-1 MS
Matrix: Water
Analysis Batch: 445653

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 445542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2462		mg/L		123	75 - 125
Arsenic	0.00756		0.200	0.2346		mg/L		114	75 - 125
Barium	0.0599		0.100	0.1735		mg/L		114	75 - 125
Beryllium	<0.00100		0.100	0.1056		mg/L		106	75 - 125
Boron	1.86		0.200	2.113	4	mg/L		127	75 - 125
Cadmium	<0.000200		0.100	0.1074		mg/L		107	75 - 125
Calcium	153		2.00	161.0	4	mg/L		416	75 - 125
Chromium	<0.00500		0.100	0.1061		mg/L		106	75 - 125
Cobalt	0.00112		0.100	0.1078		mg/L		107	75 - 125
Lithium	0.0162		0.200	0.2277		mg/L		106	75 - 125
Lead	<0.000500		0.200	0.2145		mg/L		107	75 - 125
Molybdenum	0.0240		0.200	0.2415		mg/L		109	75 - 125
Selenium	<0.00500		0.400	0.4238		mg/L		106	75 - 125
Thallium	<0.00100		0.100	0.07939		mg/L		79	75 - 125

Lab Sample ID: 310-299279-1 MSD
Matrix: Water
Analysis Batch: 445653

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 445542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2447		mg/L		122	75 - 125	1	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-299279-1 MSD
Client Sample ID: MW05D-GW-0125
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 445653
Prep Batch: 445542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.00756		0.200	0.2338		mg/L		113	75 - 125	0	20
Barium	0.0599		0.100	0.1717		mg/L		112	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1035		mg/L		104	75 - 125	2	20
Boron	1.86		0.200	2.071	4	mg/L		106	75 - 125	2	20
Cadmium	<0.000200		0.100	0.1070		mg/L		107	75 - 125	0	20
Calcium	153		2.00	154.3	4	mg/L		78	75 - 125	4	20
Chromium	<0.00500		0.100	0.1059		mg/L		106	75 - 125	0	20
Cobalt	0.00112		0.100	0.1082		mg/L		107	75 - 125	0	20
Lithium	0.0162		0.200	0.2253		mg/L		105	75 - 125	1	20
Lead	<0.000500		0.200	0.2152		mg/L		108	75 - 125	0	20
Molybdenum	0.0240		0.200	0.2411		mg/L		109	75 - 125	0	20
Selenium	<0.00500		0.400	0.4253		mg/L		106	75 - 125	0	20
Thallium	<0.00100		0.100	0.08873		mg/L		88	75 - 125	11	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-445492/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 445539
Prep Batch: 445492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		01/27/25 09:22	01/27/25 13:02	1

Lab Sample ID: LCS 310-445492/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 445539
Prep Batch: 445492

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001656		mg/L		99	80 - 120		

Lab Sample ID: 310-299279-1 MS
Client Sample ID: MW05D-GW-0125
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 445539
Prep Batch: 445492

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	<0.000200		0.00167	0.001660		mg/L		100	80 - 120		

Lab Sample ID: 310-299279-1 MSD
Client Sample ID: MW05D-GW-0125
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 445539
Prep Batch: 445492

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001651		mg/L		99	80 - 120	1	20

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

Lab Sample ID: MB 310-445608/1
Matrix: Water
Analysis Batch: 445608

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			01/28/25 11:45	1

Lab Sample ID: LCS 310-445608/2
Matrix: Water
Analysis Batch: 445608

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	986.0		mg/L		99	88 - 110

Lab Sample ID: 310-299279-1 DU
Matrix: Water
Analysis Batch: 445608

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	882		858.0		mg/L		3	16

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-445413/1
Matrix: Water
Analysis Batch: 445413

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: 310-299279-1 DU
Matrix: Water
Analysis Batch: 445413

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.4	HF	7.4		SU		0.4	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-700308/1-A
Matrix: Water
Analysis Batch: 703901

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 700308

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.133	U	0.0760	0.0761	1.00	0.133	pCi/L	01/29/25 07:50	02/20/25 09:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*94.9*		*30 - 110*	*01/29/25 07:50*	*02/20/25 09:44*	*1*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-700308/2-A
Matrix: Water
Analysis Batch: 703901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 700308

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	7.299		0.871	1.00	0.124	pCi/L	76	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*90.3*		*30 - 110*

Lab Sample ID: 310-299279-1 MS
Matrix: Water
Analysis Batch: 703902

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 700308

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	<0.159	U	9.57	8.184		0.978	1.00	0.166	pCi/L	84	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*82.4*		*30 - 110*

Lab Sample ID: 310-299279-1 MSD
Matrix: Water
Analysis Batch: 703902

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 700308

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	<0.159	U	9.55	8.204		0.972	1.00	0.187	pCi/L	85	60 - 140	0.01	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*86.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-700382/1-A
Matrix: Water
Analysis Batch: 703375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 700382

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.510	U	0.266	0.266	1.00	0.510	pCi/L	01/29/25 09:58	02/17/25 12:27	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*94.9*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:27*	*1*
Y Carrier	*87.1*		*30 - 110*	*01/29/25 09:58*	*02/17/25 12:27*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-700382/2-A
Matrix: Water
Analysis Batch: 703375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 700382

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.09	9.895		1.36	1.00	0.555	pCi/L	122	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*90.3*		*30 - 110*
Y Carrier	*79.3*		*30 - 110*

Lab Sample ID: 310-299279-1 MS
Matrix: Water
Analysis Batch: 703375

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 700382

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	<0.618	U	8.08	8.775		1.27	1.00	0.577	pCi/L	107	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*82.4*		*30 - 110*
Y Carrier	*83.4*		*30 - 110*

Lab Sample ID: 310-299279-1 MSD
Matrix: Water
Analysis Batch: 703375

Client Sample ID: MW05D-GW-0125
Prep Type: Total/NA
Prep Batch: 700382

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	<0.618	U	8.06	7.848		1.16	1.00	0.613	pCi/L	96	60 - 140	0.38	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*86.5*		*30 - 110*
Y Carrier	*83.4*		*30 - 110*

HPLC/IC

Analysis Batch: 445932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	9056A	
310-299279-2	MW22D-GW-0125	Total/NA	Water	9056A	
310-299279-3	MW156D-GW-0125	Total/NA	Water	9056A	
310-299279-4	MW227D-GW-0125	Total/NA	Water	9056A	
310-299279-5	MW307D-GW-0125	Total/NA	Water	9056A	
310-299279-6	DP01-GW-0125	Total/NA	Water	9056A	
MB 310-445932/3	Method Blank	Total/NA	Water	9056A	
LCS 310-445932/37	Lab Control Sample	Total/NA	Water	9056A	
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	9056A	
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	9056A	

Metals

Prep Batch: 445492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	7470A	
310-299279-2	MW22D-GW-0125	Total/NA	Water	7470A	
310-299279-3	MW156D-GW-0125	Total/NA	Water	7470A	
310-299279-4	MW227D-GW-0125	Total/NA	Water	7470A	
310-299279-5	MW307D-GW-0125	Total/NA	Water	7470A	
310-299279-6	DP01-GW-0125	Total/NA	Water	7470A	
MB 310-445492/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-445492/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	7470A	
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	7470A	

Analysis Batch: 445539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	7470A	445492
310-299279-2	MW22D-GW-0125	Total/NA	Water	7470A	445492
310-299279-3	MW156D-GW-0125	Total/NA	Water	7470A	445492
310-299279-4	MW227D-GW-0125	Total/NA	Water	7470A	445492
310-299279-5	MW307D-GW-0125	Total/NA	Water	7470A	445492
310-299279-6	DP01-GW-0125	Total/NA	Water	7470A	445492
MB 310-445492/1-A	Method Blank	Total/NA	Water	7470A	445492
LCS 310-445492/2-A	Lab Control Sample	Total/NA	Water	7470A	445492
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	7470A	445492
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	7470A	445492

Prep Batch: 445542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	3005A	
310-299279-2	MW22D-GW-0125	Total/NA	Water	3005A	
310-299279-3	MW156D-GW-0125	Total/NA	Water	3005A	
310-299279-4	MW227D-GW-0125	Total/NA	Water	3005A	
310-299279-5	MW307D-GW-0125	Total/NA	Water	3005A	
310-299279-6	DP01-GW-0125	Total/NA	Water	3005A	
MB 310-445542/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-445542/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	3005A	
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	3005A	

Metals

Analysis Batch: 445653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	6020B	445542
310-299279-2	MW22D-GW-0125	Total/NA	Water	6020B	445542
310-299279-3	MW156D-GW-0125	Total/NA	Water	6020B	445542
310-299279-4	MW227D-GW-0125	Total/NA	Water	6020B	445542
310-299279-5	MW307D-GW-0125	Total/NA	Water	6020B	445542
310-299279-6	DP01-GW-0125	Total/NA	Water	6020B	445542
MB 310-445542/1-A	Method Blank	Total/NA	Water	6020B	445542
LCS 310-445542/2-A	Lab Control Sample	Total/NA	Water	6020B	445542
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	6020B	445542
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	6020B	445542

General Chemistry

Analysis Batch: 445413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	SM 4500 H+ B	
310-299279-2	MW22D-GW-0125	Total/NA	Water	SM 4500 H+ B	
310-299279-3	MW156D-GW-0125	Total/NA	Water	SM 4500 H+ B	
310-299279-4	MW227D-GW-0125	Total/NA	Water	SM 4500 H+ B	
310-299279-5	MW307D-GW-0125	Total/NA	Water	SM 4500 H+ B	
310-299279-6	DP01-GW-0125	Total/NA	Water	SM 4500 H+ B	
LCS 310-445413/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-299279-1 DU	MW05D-GW-0125	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 445608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	SM 2540C	
310-299279-2	MW22D-GW-0125	Total/NA	Water	SM 2540C	
310-299279-3	MW156D-GW-0125	Total/NA	Water	SM 2540C	
310-299279-4	MW227D-GW-0125	Total/NA	Water	SM 2540C	
310-299279-5	MW307D-GW-0125	Total/NA	Water	SM 2540C	
310-299279-6	DP01-GW-0125	Total/NA	Water	SM 2540C	
MB 310-445608/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-445608/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-299279-1 DU	MW05D-GW-0125	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 700308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-2	MW22D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-3	MW156D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-4	MW227D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-5	MW307D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-6	DP01-GW-0125	Total/NA	Water	PrecSep-21	
MB 160-700308/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-700308/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	PrecSep-21	
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Rad

Prep Batch: 700382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299279-1	MW05D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-2	MW22D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-3	MW156D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-4	MW227D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-5	MW307D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-6	DP01-GW-0125	Total/NA	Water	PrecSep_0	
MB 160-700382/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-700382/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-299279-1 MS	MW05D-GW-0125	Total/NA	Water	PrecSep_0	
310-299279-1 MSD	MW05D-GW-0125	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: MW05D-GW-0125
Lab Sample ID: 310-299279-1
Date Collected: 01/22/25 16:45
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 18:19
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 15:48
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:10
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:10
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703901	SWS	EET SL	02/20/25 09:45
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703375	SCB	EET SL	02/17/25 12:28
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Client Sample ID: MW22D-GW-0125
Lab Sample ID: 310-299279-2
Date Collected: 01/23/25 11:30
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 18:52
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 15:58
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:21
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:12
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703902	SWS	EET SL	02/20/25 09:54
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703406	FLC	EET SL	02/17/25 12:25
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Client Sample ID: MW156D-GW-0125
Lab Sample ID: 310-299279-3
Date Collected: 01/23/25 13:45
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 19:03
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 16:00
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:23
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:16

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: MW156D-GW-0125
Lab Sample ID: 310-299279-3
Date Collected: 01/23/25 13:45
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703902	SWS	EET SL	02/20/25 09:54
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703406	FLC	EET SL	02/17/25 12:25
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Client Sample ID: MW227D-GW-0125
Lab Sample ID: 310-299279-4
Date Collected: 01/23/25 15:00
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 19:25
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 16:03
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:25
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:17
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703902	SWS	EET SL	02/20/25 09:54
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703406	FLC	EET SL	02/17/25 12:24
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Client Sample ID: MW307D-GW-0125
Lab Sample ID: 310-299279-5
Date Collected: 01/23/25 08:25
Matrix: Water
Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 19:36
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 16:15
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:27
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:14
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703902	SWS	EET SL	02/20/25 09:55
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703406	FLC	EET SL	02/17/25 12:25
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Client Sample ID: DP01-GW-0125
Lab Sample ID: 310-299279-6

Date Collected: 01/23/25 00:00
Matrix: Water

Date Received: 01/24/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	445932	WZC8	EET CF	01/30/25 20:09
Total/NA	Prep	3005A			445542	F5MW	EET CF	01/28/25 08:30
Total/NA	Analysis	6020B		1	445653	NFT2	EET CF	01/28/25 16:17
Total/NA	Prep	7470A			445492	QTZ5	EET CF	01/27/25 09:22
Total/NA	Analysis	7470A		1	445539	QTZ5	EET CF	01/27/25 13:30
Total/NA	Analysis	SM 2540C		1	445608	HE7K	EET CF	01/28/25 11:45
Total/NA	Analysis	SM 4500 H+ B		1	445413	W9YR	EET CF	01/24/25 16:13
Total/NA	Prep	PrecSep-21			700308	OGC	EET SL	01/29/25 07:50
Total/NA	Analysis	9315		1	703902	SWS	EET SL	02/20/25 09:55
Total/NA	Prep	PrecSep_0			700382	OGC	EET SL	01/29/25 09:58
Total/NA	Analysis	9320		1	703406	FLC	EET SL	02/17/25 12:25
Total/NA	Analysis	Ra226_Ra228		1	703871	SCB	EET SL	02/19/25 17:02

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-08-25
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-24 *
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	381	10-31-25

Method Summary

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-299279 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD			
City/State: CITY Des Moines		STATE IA	Project:
Receipt Information			
Date/Time Received:	DATE 1-24-25	TIME 1600	Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes ☐ No	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present?	☐ Yes ☑ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P	Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 4.6	Corrected Temp (°C): 4.6

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD			
City/State: CITY Des Moines		STATE IA	Project:
Receipt Information			
Date/Time Received.	DATE 1-24-25	TIME 1600	Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes ☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present?	☐ Yes ☑ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P	Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 4.3	Corrected Temp (°C). 4.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

2/20/2025

Client Information	Sampler: Brooke Wasson	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@Et.EurofinsUS.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd.com	WO #:			
Project Name: MEC WSEC Deep Well Baseline	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Rad226/Rad228/Rad228/228 combined	6020A CCR Metals List, 7470A Mercury	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N		
MW05D-GW-0125	01/22/25	1645	G	W	N	Y	X	X	X	X	X		USE SITES AND EVENTS
MW22D-GW-0125	01/23/25	1130	G	W	N		X	X	X	X	X		
MW156D-GW-0125	01/23/25	1345	G	W	N		X	X	X	X	X		
MW227D-GW-0125	01/23/25	1500	G	W	N		X	X	X	X	X		
MW307D-GW-0125	01/23/25	0825	G	W	N		X	X	X	X	X		
DP01-GW-0125	01/23/25	—	G	W	N		X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	THAD LARSON	1/24/2025	GHD	Ken Henze	1553 1/24/25	Eurofins
2						
3					1600	

Custody Seals Intact: △ Yes △ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-299279-1

Login Number: 299279
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Job ID: 310-299279-1
Project/Site: MEC WSEC Deep Well Baseline

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
310-299279-1	MW05D-GW-0125	87.5
310-299279-1 MS	MW05D-GW-0125	82.4
310-299279-1 MSD	MW05D-GW-0125	86.5
310-299279-2	MW22D-GW-0125	84.9
310-299279-3	MW156D-GW-0125	85.2
310-299279-4	MW227D-GW-0125	89.8
310-299279-5	MW307D-GW-0125	78.8
310-299279-6	DP01-GW-0125	89.3
LCS 160-700308/2-A	Lab Control Sample	90.3
MB 160-700308/1-A	Method Blank	94.9

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-299279-1	MW05D-GW-0125	87.5	81.9
310-299279-1 MS	MW05D-GW-0125	82.4	83.4
310-299279-1 MSD	MW05D-GW-0125	86.5	83.4
310-299279-2	MW22D-GW-0125	84.9	80.0
310-299279-3	MW156D-GW-0125	85.2	80.0
310-299279-4	MW227D-GW-0125	89.8	82.2
310-299279-5	MW307D-GW-0125	78.8	80.0
310-299279-6	DP01-GW-0125	89.3	83.4
LCS 160-700382/2-A	Lab Control Sample	90.3	79.3
MB 160-700382/1-A	Method Blank	94.9	87.1

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 5/5/2025 10:14:09 AM

JOB DESCRIPTION

MidAmerican WSEC CCR Background
Background

JOB NUMBER

310-303159-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
5/5/2025 10:14:09 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 19
QC Sample Results 20
QC Association 27
Chronicle 30
Certification Summary 33
Method Summary 34
Chain of Custody 35
Receipt Checklists 38
Tracer Carrier Summary 39

Job ID: 310-303159-1 Eurofins Cedar Falls

Job Narrative
310-303159-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/2/2025 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5°C and 4.0°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: TW1-GW-0425 (310-303159-1), TW2-GW-0425 (310-303159-2), MW34-GW-0425 (310-303159-3), MW307-GW-0425 (310-303159-4) and MW307D-GW-0425 (310-303159-5). Elevated reporting limits (RLs) are provided.

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

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

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

Job ID: 310-303159-2 Eurofins Cedar Falls

Job Narrative
310-303159-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/2/2025 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5°C and 4.0°C.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-303159-1	TW1-GW-0425	Water	04/01/25 08:15	04/02/25 09:15
310-303159-2	TW2-GW-0425	Water	03/31/25 19:00	04/02/25 09:15
310-303159-3	MW34-GW-0425	Water	04/01/25 10:55	04/02/25 09:15
310-303159-4	MW307-GW-0425	Water	03/31/25 16:30	04/02/25 09:15
310-303159-5	MW307D-GW-0425	Water	03/31/25 15:40	04/02/25 09:15

Detection Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR Background

Job ID: 310-303159-1

Client Sample ID: TW1-GW-0425 — Lab Sample ID: 310-303159-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	337		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0217		0.00200		mg/L	1		6020B	Total/NA
Barium	0.316		0.00200		mg/L	1		6020B	Total/NA
Boron	0.187		0.100		mg/L	1		6020B	Total/NA
Calcium	213		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000813		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0522		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00478		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1120		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TW2-GW-0425 — Lab Sample ID: 310-303159-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	41.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	341		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0215		0.00200		mg/L	1		6020B	Total/NA
Barium	0.139		0.00200		mg/L	1		6020B	Total/NA
Boron	0.163		0.100		mg/L	1		6020B	Total/NA
Calcium	205		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0875		0.0100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1160		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW34-GW-0425 — Lab Sample ID: 310-303159-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.13		5.00		mg/L	5		9056A	Total/NA
Sulfate	44.8		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0395		0.00200		mg/L	1		6020B	Total/NA
Barium	0.252		0.00200		mg/L	1		6020B	Total/NA
Boron	0.111		0.100		mg/L	1		6020B	Total/NA
Calcium	101		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00106		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0331		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00421		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0236		0.00500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	494		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW307-GW-0425 — Lab Sample ID: 310-303159-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	61.3		5.00		mg/L	5		9056A	Total/NA
Barium	0.204		0.00200		mg/L	1		6020B	Total/NA
Boron	0.201		0.100		mg/L	1		6020B	Total/NA
Calcium	123		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0802		0.0100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	496		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307D-GW-0425
Lab Sample ID: 310-303159-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	32.6		5.00		mg/L	5		9056A	Total/NA
Barium	0.192		0.00200		mg/L	1		6020B	Total/NA
Boron	0.193		0.100		mg/L	1		6020B	Total/NA
Calcium	119		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0675		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00231		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	462		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.3	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TW1-GW-0425 Lab Sample ID: 310-303159-1

Date Collected: 04/01/25 08:15 **Matrix: Water**
Date Received: 04/02/25 09:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.2**		5.00		mg/L			04/09/25 09:20	5
Fluoride	<1.00		1.00		mg/L			04/09/25 09:20	5
Sulfate	**337**		5.00		mg/L			04/09/25 09:20	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:46	1
Arsenic	**0.0217**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:46	1
Barium	**0.316**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:46	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:46	1
Boron	**0.187**		0.100		mg/L		04/07/25 09:30	04/07/25 17:46	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 17:46	1
Calcium	**213**		0.500		mg/L		04/07/25 09:30	04/07/25 17:46	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:46	1
Cobalt	**0.000813**		0.000500		mg/L		04/07/25 09:30	04/07/25 17:46	1
Lithium	**0.0522**		0.0100		mg/L		04/07/25 09:30	04/07/25 17:46	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:46	1
Molybdenum	**0.00478**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:46	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:46	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/08/25 10:00	04/08/25 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1120**		50.0		mg/L			04/03/25 14:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.1**	**HF**	1.0		SU			04/02/25 12:01	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.531**		0.276	0.280	1.00	0.333	pCi/L	04/07/25 07:32	05/02/25 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.1*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.22**		0.489	0.502	1.00	0.637	pCi/L	04/07/25 07:40	05/02/25 10:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.1*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*
Y Carrier	*76.3*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: TW1-GW-0425
Lab Sample ID: 310-303159-1
Date Collected: 04/01/25 08:15
Matrix: Water
Date Received: 04/02/25 09:15

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.75		0.562	0.575	5.00	0.637	pCi/L		05/02/25 16:47	1

Client Sample ID: TW2-GW-0425 — Lab Sample ID: 310-303159-2

Date Collected: 03/31/25 19:00 — **Matrix: Water**
Date Received: 04/02/25 09:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.2**		5.00		mg/L			04/09/25 09:35	5
Fluoride	<1.00		1.00		mg/L			04/09/25 09:35	5
Sulfate	**341**		5.00		mg/L			04/09/25 09:35	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:58	1
Arsenic	**0.0215**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:58	1
Barium	**0.139**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:58	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:58	1
Boron	**0.163**		0.100		mg/L		04/07/25 09:30	04/08/25 13:19	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 17:58	1
Calcium	**205**		0.500		mg/L		04/07/25 09:30	04/07/25 17:58	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:58	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:58	1
Lithium	**0.0875**		0.0100		mg/L		04/07/25 09:30	04/07/25 17:58	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:58	1
Molybdenum	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:58	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:58	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/08/25 10:00	04/08/25 14:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1160**		50.0		mg/L			04/03/25 14:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			04/02/25 12:02	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.572	U	0.372	0.373	1.00	0.572	pCi/L	04/07/25 07:32	05/02/25 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*87.6*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.22**		0.536	0.548	1.00	0.691	pCi/L	04/07/25 07:40	05/02/25 10:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*87.6*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*
Y Carrier	*80.7*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: TW2-GW-0425
Lab Sample ID: 310-303159-2
Date Collected: 03/31/25 19:00
Matrix: Water
Date Received: 04/02/25 09:15

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.64		0.652	0.663	5.00	0.691	pCi/L		05/02/25 16:47	1

Client Sample ID: MW34-GW-0425 — Lab Sample ID: 310-303159-3

Date Collected: 04/01/25 10:55 — **Matrix: Water**
Date Received: 04/02/25 09:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.13**		5.00		mg/L			04/09/25 09:51	5
Fluoride	<1.00		1.00		mg/L			04/09/25 09:51	5
Sulfate	**44.8**		5.00		mg/L			04/09/25 09:51	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 18:00	1
Arsenic	**0.0395**		0.00200		mg/L		04/07/25 09:30	04/07/25 18:00	1
Barium	**0.252**		0.00200		mg/L		04/07/25 09:30	04/07/25 18:00	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 18:00	1
Boron	**0.111**		0.100		mg/L		04/07/25 09:30	04/08/25 13:30	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 18:00	1
Calcium	**101**		0.500		mg/L		04/07/25 09:30	04/07/25 18:00	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 18:00	1
Cobalt	**0.00106**		0.000500		mg/L		04/07/25 09:30	04/07/25 18:00	1
Lithium	**0.0331**		0.0100		mg/L		04/07/25 09:30	04/07/25 18:00	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 18:00	1
Molybdenum	**0.00421**		0.00200		mg/L		04/07/25 09:30	04/07/25 18:00	1
Selenium	**0.0236**		0.00500		mg/L		04/07/25 09:30	04/07/25 18:00	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 18:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/08/25 10:00	04/08/25 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**494**		50.0		mg/L			04/03/25 14:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.3**	**HF**	1.0		SU			04/02/25 12:04	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.541	U	0.288	0.288	1.00	0.541	pCi/L	04/07/25 07:32	05/02/25 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.9*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.688	U	0.421	0.422	1.00	0.688	pCi/L	04/07/25 07:40	05/02/25 10:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.9*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*
Y Carrier	*81.5*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:09*	*1*

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW34-GW-0425
Lab Sample ID: 310-303159-3
Date Collected: 04/01/25 10:55
Matrix: Water
Date Received: 04/02/25 09:15

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.688	U	0.510	0.511	5.00	0.688	pCi/L		05/02/25 16:47	1

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307-GW-0425
Lab Sample ID: 310-303159-4
Date Collected: 03/31/25 16:30
Matrix: Water
Date Received: 04/02/25 09:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			04/09/25 10:06	5
Fluoride	<1.00		1.00		mg/L			04/09/25 10:06	5
Sulfate	**61.3**		5.00		mg/L			04/09/25 10:06	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 18:03	1
Arsenic	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 18:03	1
Barium	**0.204**		0.00200		mg/L		04/07/25 09:30	04/07/25 18:03	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 18:03	1
Boron	**0.201**		0.100		mg/L		04/07/25 09:30	04/08/25 13:33	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 18:03	1
Calcium	**123**		0.500		mg/L		04/07/25 09:30	04/07/25 18:03	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 18:03	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 18:03	1
Lithium	**0.0802**		0.0100		mg/L		04/07/25 09:30	04/07/25 18:03	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 18:03	1
Molybdenum	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 18:03	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 18:03	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 18:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/08/25 10:00	04/08/25 14:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**496**		50.0		mg/L			04/03/25 14:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			04/02/25 12:03	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.400	U	0.265	0.267	1.00	0.400	pCi/L	04/07/25 07:32	05/02/25 13:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.6*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.656**		0.417	0.422	1.00	0.617	pCi/L	04/07/25 07:40	05/02/25 10:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.6*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:10*	*1*
Y Carrier	*79.3*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:10*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307-GW-0425
Lab Sample ID: 310-303159-4
Date Collected: 03/31/25 16:30
Matrix: Water
Date Received: 04/02/25 09:15

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.969		0.494	0.499	5.00	0.617	pCi/L		05/02/25 16:47	1

Client Sample ID: MW307D-GW-0425 — Lab Sample ID: 310-303159-5

Date Collected: 03/31/25 15:40 — **Matrix: Water**
Date Received: 04/02/25 09:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			04/09/25 10:22	5
Fluoride	<1.00		1.00		mg/L			04/09/25 10:22	5
Sulfate	**32.6**		5.00		mg/L			04/09/25 10:22	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:08	1
Arsenic	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:08	1
Barium	**0.192**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:08	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:08	1
Boron	**0.193**		0.100		mg/L		04/07/25 09:30	04/07/25 17:08	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 17:08	1
Calcium	**119**		0.500		mg/L		04/07/25 09:30	04/07/25 17:08	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:08	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:08	1
Lithium	**0.0675**		0.0100		mg/L		04/07/25 09:30	04/07/25 17:08	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:08	1
Molybdenum	**0.00231**		0.00200		mg/L		04/07/25 09:30	04/07/25 17:08	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:08	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/09/25 09:40	04/10/25 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**462**		50.0		mg/L			04/03/25 14:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.3**	**HF**	1.0		SU			04/02/25 11:58	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.312	U	0.199	0.200	1.00	0.312	pCi/L	04/07/25 07:32	05/02/25 13:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*94.2*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.631	U	0.381	0.382	1.00	0.631	pCi/L	04/07/25 07:40	05/02/25 10:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*94.2*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:10*	*1*
Y Carrier	*81.9*		*30 - 110*	*04/07/25 07:40*	*05/02/25 10:10*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307D-GW-0425
Lab Sample ID: 310-303159-5

Date Collected: 03/31/25 15:40
Matrix: Water

Date Received: 04/02/25 09:15

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.631	U	0.430	0.431	5.00	0.631	pCi/L		05/02/25 16:47	1

Definitions/Glossary

Client: GHD Services Inc. Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-451137/3
Matrix: Water
Analysis Batch: 451137

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			04/08/25 10:23	1
Fluoride	<0.200		0.200		mg/L			04/08/25 10:23	1
Sulfate	<1.00		1.00		mg/L			04/08/25 10:23	1

Lab Sample ID: LCS 310-451137/4
Matrix: Water
Analysis Batch: 451137

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.256		mg/L		93	90 - 110
Fluoride	2.00	1.970		mg/L		99	90 - 110
Sulfate	10.0	9.231		mg/L		92	90 - 110

Lab Sample ID: 310-303159-5 MS
Matrix: Water
Analysis Batch: 451137

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00		25.0	25.75		mg/L		87	80 - 120
Fluoride	<1.00		5.00	5.418		mg/L		108	80 - 120
Sulfate	32.6		25.0	56.66		mg/L		96	80 - 120

Lab Sample ID: 310-303159-5 MSD
Matrix: Water
Analysis Batch: 451137

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.00		25.0	26.69		mg/L		91	80 - 120	4	15
Fluoride	<1.00		5.00	5.756		mg/L		115	80 - 120	6	15
Sulfate	32.6		25.0	57.31		mg/L		99	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-450741/1-A
Matrix: Water
Analysis Batch: 450918

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450741

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:03	1
Arsenic	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:03	1
Barium	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:03	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:03	1
Boron	<0.100		0.100		mg/L		04/07/25 09:30	04/07/25 17:03	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/07/25 17:03	1
Calcium	<0.500		0.500		mg/L		04/07/25 09:30	04/07/25 17:03	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:03	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:03	1
Lithium	<0.0100		0.0100		mg/L		04/07/25 09:30	04/07/25 17:03	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/07/25 17:03	1
Molybdenum	<0.00200		0.00200		mg/L		04/07/25 09:30	04/07/25 17:03	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-450741/1-A
Matrix: Water
Analysis Batch: 450918

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450741

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/07/25 17:03	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/07/25 17:03	1

Lab Sample ID: LCS 310-450741/2-A
Matrix: Water
Analysis Batch: 450918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450741

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.200	0.2280		mg/L		114	80 - 120		
Arsenic			0.200	0.2040		mg/L		102	80 - 120		
Barium			0.100	0.1023		mg/L		102	80 - 120		
Beryllium			0.100	0.09638		mg/L		96	80 - 120		
Boron			0.200	0.2074		mg/L		104	80 - 120		
Cadmium			0.100	0.09947		mg/L		99	80 - 120		
Calcium			2.00	1.864		mg/L		93	80 - 120		
Chromium			0.100	0.09917		mg/L		99	80 - 120		
Cobalt			0.100	0.1072		mg/L		107	80 - 120		
Lithium			0.200	0.2053		mg/L		103	80 - 120		
Lead			0.200	0.2061		mg/L		103	80 - 120		
Molybdenum			0.200	0.1949		mg/L		97	80 - 120		
Selenium			0.400	0.3899		mg/L		97	80 - 120		
Thallium			0.100	0.09033		mg/L		90	80 - 120		

Lab Sample ID: 310-303159-5 MS
Matrix: Water
Analysis Batch: 450918

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 450741

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	<0.00200		0.200	0.2343		mg/L		117	75 - 125		
Arsenic	<0.00200		0.200	0.2147		mg/L		107	75 - 125		
Barium	0.192		0.100	0.2906		mg/L		99	75 - 125		
Beryllium	<0.00100		0.100	0.1018		mg/L		102	75 - 125		
Boron	0.193		0.200	0.3839		mg/L		96	75 - 125		
Cadmium	<0.000200		0.100	0.1045		mg/L		104	75 - 125		
Calcium	119		2.00	115.6	4	mg/L		-177	75 - 125		
Chromium	<0.00500		0.100	0.1013		mg/L		101	75 - 125		
Cobalt	<0.000500		0.100	0.1062		mg/L		106	75 - 125		
Lithium	0.0675		0.200	0.2757		mg/L		104	75 - 125		
Lead	<0.000500		0.200	0.2123		mg/L		106	75 - 125		
Molybdenum	0.00231		0.200	0.2103		mg/L		104	75 - 125		
Selenium	<0.00500		0.400	0.4067		mg/L		102	75 - 125		
Thallium	<0.00100		0.100	0.08686		mg/L		87	75 - 125		

Lab Sample ID: 310-303159-5 MSD
Matrix: Water
Analysis Batch: 450918

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 450741

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2304		mg/L		115	75 - 125	2	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-303159-5 MSD
Client Sample ID: MW307D-GW-0425
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 450918
Prep Batch: 450741

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.00200		0.200	0.2128		mg/L		106	75 - 125	1	20
Barium	0.192		0.100	0.2884		mg/L		97	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1012		mg/L		101	75 - 125	1	20
Boron	0.193		0.200	0.3881		mg/L		98	75 - 125	1	20
Cadmium	<0.000200		0.100	0.1039		mg/L		104	75 - 125	1	20
Calcium	119		2.00	115.0	4	mg/L		-207	75 - 125	1	20
Chromium	<0.00500		0.100	0.1004		mg/L		100	75 - 125	1	20
Cobalt	<0.000500		0.100	0.1032		mg/L		103	75 - 125	3	20
Lithium	0.0675		0.200	0.2737		mg/L		103	75 - 125	1	20
Lead	<0.000500		0.200	0.2104		mg/L		105	75 - 125	1	20
Molybdenum	0.00231		0.200	0.2067		mg/L		102	75 - 125	2	20
Selenium	<0.00500		0.400	0.4072		mg/L		102	75 - 125	0	20
Thallium	<0.00100		0.100	0.08630		mg/L		86	75 - 125	1	20

Lab Sample ID: 310-303159-1 DU
Client Sample ID: TW1-GW-0425
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 450918
Prep Batch: 450741

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Antimony	<0.00200		<0.00200		mg/L				NC	20
Arsenic	0.0217		0.02157		mg/L				0.5	20
Barium	0.316		0.3124		mg/L				1	20
Beryllium	<0.00100		<0.00100		mg/L				NC	20
Boron	0.187		0.1878		mg/L				0.7	20
Cadmium	<0.000200		<0.000200		mg/L				NC	20
Calcium	213		213.4		mg/L				0.3	20
Chromium	<0.00500		<0.00500		mg/L				NC	20
Cobalt	0.000813		0.0007820		mg/L				4	20
Lithium	0.0522		0.05173		mg/L				0.9	20
Lead	<0.000500		<0.000500		mg/L				NC	20
Molybdenum	0.00478		0.004757		mg/L				0.6	20
Selenium	<0.00500		<0.00500		mg/L				NC	20
Thallium	<0.00100		<0.00100		mg/L				NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-450861/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 451014
Prep Batch: 450861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/08/25 10:00	04/08/25 14:35	1

Lab Sample ID: LCS 310-450861/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 451014
Prep Batch: 450861

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001646		mg/L		99	80 - 120		

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 310-451002/1-A
Matrix: Water
Analysis Batch: 451223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/09/25 09:40	04/10/25 10:00	1

Lab Sample ID: LCS 310-451002/2-A
Matrix: Water
Analysis Batch: 451223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001761		mg/L		106	80 - 120

Lab Sample ID: 310-303159-5 MS
Matrix: Water
Analysis Batch: 451223

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 451002

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001819		mg/L		109	80 - 120

Lab Sample ID: 310-303159-5 MSD
Matrix: Water
Analysis Batch: 451223

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 451002

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001787		mg/L		107	80 - 120	2	20

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

Lab Sample ID: MB 310-450622/1
Matrix: Water
Analysis Batch: 450622

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			04/03/25 14:37	1

Lab Sample ID: LCS 310-450622/2
Matrix: Water
Analysis Batch: 450622

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	990.0		mg/L		99	88 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-450433/1
Matrix: Water
Analysis Batch: 450433

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCS 310-450433/17
Matrix: Water
Analysis Batch: 450433

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100	98 - 102		

Lab Sample ID: 310-303159-5 DU
Matrix: Water
Analysis Batch: 450433

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	HF		7.3		SU				0.1	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-710991/1-A
Matrix: Water
Analysis Batch: 715696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710991

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.456	U	0.240	0.240	1.00	0.456	pCi/L	04/07/25 07:32	05/02/25 13:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.2*		*30 - 110*	*04/07/25 07:32*	*05/02/25 13:05*	*1*

Lab Sample ID: LCS 160-710991/2-A
Matrix: Water
Analysis Batch: 715696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710991

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	7.702		1.11	1.00	0.372	pCi/L	80	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*88.4*		*30 - 110*

Lab Sample ID: 310-303159-5 MS
Matrix: Water
Analysis Batch: 715713

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 710991

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	<0.312	U	9.54	8.311		1.17	1.00	0.319	pCi/L	85	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*91.4*		*30 - 110*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 310-303159-5 MSD
Matrix: Water
Analysis Batch: 715713

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 710991

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	<0.312	U	9.64	8.094		1.13	1.00	0.283	pCi/L	82	60 - 140	0.09	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*94.9*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-710992/1-A
Matrix: Water
Analysis Batch: 715696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710992

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.555	U	0.289	0.289	1.00	0.555	pCi/L	04/07/25 07:40	05/02/25 09:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.2*		*30 - 110*	*04/07/25 07:40*	*05/02/25 09:57*	*1*
Y Carrier	*79.3*		*30 - 110*	*04/07/25 07:40*	*05/02/25 09:57*	*1*

Lab Sample ID: LCS 160-710992/2-A
Matrix: Water
Analysis Batch: 715696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710992

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.48	10.88		1.47	1.00	0.671	pCi/L	115	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*88.4*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

Lab Sample ID: 310-303159-5 MS
Matrix: Water
Analysis Batch: 715713

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 710992

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	<0.631	U	9.45	10.13		1.37	1.00	0.551	pCi/L	104	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*91.4*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 310-303159-5 MSD
Matrix: Water
Analysis Batch: 715713

Client Sample ID: MW307D-GW-0425
Prep Type: Total/NA
Prep Batch: 710992

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	<0.631	U	9.55	10.66		1.43	1.00	0.603	pCi/L	108	60 - 140	0.19	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*94.9*		*30 - 110*
Y Carrier	*81.9*		*30 - 110*

HPLC/IC

Analysis Batch: 451137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	9056A	
310-303159-2	TW2-GW-0425	Total/NA	Water	9056A	
310-303159-3	MW34-GW-0425	Total/NA	Water	9056A	
310-303159-4	MW307-GW-0425	Total/NA	Water	9056A	
310-303159-5	MW307D-GW-0425	Total/NA	Water	9056A	
MB 310-451137/3	Method Blank	Total/NA	Water	9056A	
LCS 310-451137/4	Lab Control Sample	Total/NA	Water	9056A	
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	9056A	
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	9056A	

Metals

Prep Batch: 450741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	3005A	
310-303159-2	TW2-GW-0425	Total/NA	Water	3005A	
310-303159-3	MW34-GW-0425	Total/NA	Water	3005A	
310-303159-4	MW307-GW-0425	Total/NA	Water	3005A	
310-303159-5	MW307D-GW-0425	Total/NA	Water	3005A	
MB 310-450741/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-450741/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	3005A	
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	3005A	
310-303159-1 DU	TW1-GW-0425	Total/NA	Water	3005A	

Prep Batch: 450861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	7470A	
310-303159-2	TW2-GW-0425	Total/NA	Water	7470A	
310-303159-3	MW34-GW-0425	Total/NA	Water	7470A	
310-303159-4	MW307-GW-0425	Total/NA	Water	7470A	
MB 310-450861/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-450861/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 450918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	6020B	450741
310-303159-2	TW2-GW-0425	Total/NA	Water	6020B	450741
310-303159-3	MW34-GW-0425	Total/NA	Water	6020B	450741
310-303159-4	MW307-GW-0425	Total/NA	Water	6020B	450741
310-303159-5	MW307D-GW-0425	Total/NA	Water	6020B	450741
MB 310-450741/1-A	Method Blank	Total/NA	Water	6020B	450741
LCS 310-450741/2-A	Lab Control Sample	Total/NA	Water	6020B	450741
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	6020B	450741
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	6020B	450741
310-303159-1 DU	TW1-GW-0425	Total/NA	Water	6020B	450741

Prep Batch: 451002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-5	MW307D-GW-0425	Total/NA	Water	7470A	
MB 310-451002/1-A	Method Blank	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 451002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-451002/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	7470A	
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	7470A	

Analysis Batch: 451009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-2	TW2-GW-0425	Total/NA	Water	6020B	450741
310-303159-3	MW34-GW-0425	Total/NA	Water	6020B	450741
310-303159-4	MW307-GW-0425	Total/NA	Water	6020B	450741

Analysis Batch: 451014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	7470A	450861
310-303159-2	TW2-GW-0425	Total/NA	Water	7470A	450861
310-303159-3	MW34-GW-0425	Total/NA	Water	7470A	450861
310-303159-4	MW307-GW-0425	Total/NA	Water	7470A	450861
MB 310-450861/1-A	Method Blank	Total/NA	Water	7470A	450861
LCS 310-450861/2-A	Lab Control Sample	Total/NA	Water	7470A	450861

Analysis Batch: 451223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-5	MW307D-GW-0425	Total/NA	Water	7470A	451002
MB 310-451002/1-A	Method Blank	Total/NA	Water	7470A	451002
LCS 310-451002/2-A	Lab Control Sample	Total/NA	Water	7470A	451002
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	7470A	451002
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	7470A	451002

General Chemistry

Analysis Batch: 450433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303159-2	TW2-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303159-3	MW34-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303159-4	MW307-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303159-5	MW307D-GW-0425	Total/NA	Water	SM 4500 H+ B	
LCS 310-450433/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-450433/17	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-303159-5 DU	MW307D-GW-0425	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 450622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	SM 2540C	
310-303159-2	TW2-GW-0425	Total/NA	Water	SM 2540C	
310-303159-3	MW34-GW-0425	Total/NA	Water	SM 2540C	
310-303159-4	MW307-GW-0425	Total/NA	Water	SM 2540C	
310-303159-5	MW307D-GW-0425	Total/NA	Water	SM 2540C	
MB 310-450622/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-450622/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Rad

Prep Batch: 710991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	PrecSep-21	
310-303159-2	TW2-GW-0425	Total/NA	Water	PrecSep-21	
310-303159-3	MW34-GW-0425	Total/NA	Water	PrecSep-21	
310-303159-4	MW307-GW-0425	Total/NA	Water	PrecSep-21	
310-303159-5	MW307D-GW-0425	Total/NA	Water	PrecSep-21	
MB 160-710991/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-710991/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	PrecSep-21	
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	PrecSep-21	

Prep Batch: 710992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303159-1	TW1-GW-0425	Total/NA	Water	PrecSep_0	
310-303159-2	TW2-GW-0425	Total/NA	Water	PrecSep_0	
310-303159-3	MW34-GW-0425	Total/NA	Water	PrecSep_0	
310-303159-4	MW307-GW-0425	Total/NA	Water	PrecSep_0	
310-303159-5	MW307D-GW-0425	Total/NA	Water	PrecSep_0	
MB 160-710992/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-710992/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-303159-5 MS	MW307D-GW-0425	Total/NA	Water	PrecSep_0	
310-303159-5 MSD	MW307D-GW-0425	Total/NA	Water	PrecSep_0	

Client Sample ID: TW1-GW-0425
Lab Sample ID: 310-303159-1
Date Collected: 04/01/25 08:15
Matrix: Water
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451137	WZC8	EET CF	04/09/25 09:20
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 17:46
Total/NA	Prep	7470A			450861	F5MW	EET CF	04/08/25 10:00
Total/NA	Analysis	7470A		1	451014	F5MW	EET CF	04/08/25 14:46
Total/NA	Analysis	SM 2540C		1	450622	XJ7V	EET CF	04/03/25 14:37
Total/NA	Analysis	SM 4500 H+ B		1	450433	W9YR	EET CF	04/02/25 12:01
Total/NA	Prep	PrecSep-21			710991	OGC	EET SL	04/07/25 07:32
Total/NA	Analysis	9315		1	715713	SWS	EET SL	05/02/25 13:19
Total/NA	Prep	PrecSep_0			710992	OGC	EET SL	04/07/25 07:40
Total/NA	Analysis	9320		1	715713	SWS	EET SL	05/02/25 10:09
Total/NA	Analysis	Ra226_Ra228		1	715740	SCB	EET SL	05/02/25 16:47

Client Sample ID: TW2-GW-0425
Lab Sample ID: 310-303159-2
Date Collected: 03/31/25 19:00
Matrix: Water
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451137	WZC8	EET CF	04/09/25 09:35
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 17:58
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451009	NFT2	EET CF	04/08/25 13:19
Total/NA	Prep	7470A			450861	F5MW	EET CF	04/08/25 10:00
Total/NA	Analysis	7470A		1	451014	F5MW	EET CF	04/08/25 14:48
Total/NA	Analysis	SM 2540C		1	450622	XJ7V	EET CF	04/03/25 14:37
Total/NA	Analysis	SM 4500 H+ B		1	450433	W9YR	EET CF	04/02/25 12:02
Total/NA	Prep	PrecSep-21			710991	OGC	EET SL	04/07/25 07:32
Total/NA	Analysis	9315		1	715713	SWS	EET SL	05/02/25 13:19
Total/NA	Prep	PrecSep_0			710992	OGC	EET SL	04/07/25 07:40
Total/NA	Analysis	9320		1	715713	SWS	EET SL	05/02/25 10:09
Total/NA	Analysis	Ra226_Ra228		1	715740	SCB	EET SL	05/02/25 16:47

Client Sample ID: MW34-GW-0425
Lab Sample ID: 310-303159-3
Date Collected: 04/01/25 10:55
Matrix: Water
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451137	WZC8	EET CF	04/09/25 09:51
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 18:00
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451009	NFT2	EET CF	04/08/25 13:30

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW34-GW-0425 Lab Sample ID: 310-303159-3

Date Collected: 04/01/25 10:55 **Matrix: Water**
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			450861	F5MW	EET CF	04/08/25 10:00
Total/NA	Analysis	7470A		1	451014	F5MW	EET CF	04/08/25 14:55
Total/NA	Analysis	SM 2540C		1	450622	XJ7V	EET CF	04/03/25 14:37
Total/NA	Analysis	SM 4500 H+ B		1	450433	W9YR	EET CF	04/02/25 12:04
Total/NA	Prep	PrecSep-21			710991	OGC	EET SL	04/07/25 07:32
Total/NA	Analysis	9315		1	715713	SWS	EET SL	05/02/25 13:19
Total/NA	Prep	PrecSep_0			710992	OGC	EET SL	04/07/25 07:40
Total/NA	Analysis	9320		1	715713	SWS	EET SL	05/02/25 10:09
Total/NA	Analysis	Ra226_Ra228		1	715740	SCB	EET SL	05/02/25 16:47

Client Sample ID: MW307-GW-0425 Lab Sample ID: 310-303159-4

Date Collected: 03/31/25 16:30 **Matrix: Water**
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451137	WZC8	EET CF	04/09/25 10:06
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 18:03
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451009	NFT2	EET CF	04/08/25 13:33
Total/NA	Prep	7470A			450861	F5MW	EET CF	04/08/25 10:00
Total/NA	Analysis	7470A		1	451014	F5MW	EET CF	04/08/25 14:57
Total/NA	Analysis	SM 2540C		1	450622	XJ7V	EET CF	04/03/25 14:37
Total/NA	Analysis	SM 4500 H+ B		1	450433	W9YR	EET CF	04/02/25 12:03
Total/NA	Prep	PrecSep-21			710991	OGC	EET SL	04/07/25 07:32
Total/NA	Analysis	9315		1	715713	SWS	EET SL	05/02/25 13:19
Total/NA	Prep	PrecSep_0			710992	OGC	EET SL	04/07/25 07:40
Total/NA	Analysis	9320		1	715713	SWS	EET SL	05/02/25 10:10
Total/NA	Analysis	Ra226_Ra228		1	715740	SCB	EET SL	05/02/25 16:47

Client Sample ID: MW307D-GW-0425 Lab Sample ID: 310-303159-5

Date Collected: 03/31/25 15:40 **Matrix: Water**
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451137	WZC8	EET CF	04/09/25 10:22
Total/NA	Prep	3005A			450741	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 17:08
Total/NA	Prep	7470A			451002	F5MW	EET CF	04/09/25 09:40
Total/NA	Analysis	7470A		1	451223	F5MW	EET CF	04/10/25 10:08
Total/NA	Analysis	SM 2540C		1	450622	XJ7V	EET CF	04/03/25 14:37
Total/NA	Analysis	SM 4500 H+ B		1	450433	W9YR	EET CF	04/02/25 11:58
Total/NA	Prep	PrecSep-21			710991	OGC	EET SL	04/07/25 07:32
Total/NA	Analysis	9315		1	715713	SWS	EET SL	05/02/25 13:20

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307D-GW-0425
Lab Sample ID: 310-303159-5

Date Collected: 03/31/25 15:40
Matrix: Water
Date Received: 04/02/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			710992	OGC	EET SL	04/07/25 07:40
Total/NA	Analysis	9320		1	715713	SWS	EET SL	05/02/25 10:10
Total/NA	Analysis	Ra226_Ra228		1	715740	SCB	EET SL	05/02/25 16:47

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-303159 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD Services Inc.			
City/State CITY: Des Moines	STATE: IA	Project:	
Receipt Information			
Date/Time Received. DATE: 4.2.25	TIME: 0915	Received By: CGC	
Delivery Type. ☐ UPS ☑ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☑ Yes ☐ No	*If yes:* Cooler ID		
Multiple Coolers? ☑ Yes ☐ No	*If yes:* Cooler # 1 of 2		
Cooler Custody Seals Present? ☐ Yes ☑ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No		
Sample Custody Seals Present? ☐ Yes ☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No		
Trip Blank Present? ☐ Yes ☑ No	*If yes.* Which VOA samples are in cooler? ↓		
Temperature Record			
Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other ☐ NONE			
Thermometer ID. P	Correction Factor (°C): 0		
• **Temp Blank Temperature** – *If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature*			
Uncorrected Temp (°C) 1.5	Corrected Temp (°C) 1.5		
• **Sample Container Temperature**			
Container(s) used.	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C).			
Corrected Temp (°C)			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GeoHD Services Inc.

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 4.2.25 | TIME 0915 | Received By: CGC

Delivery Type: ☐ UPS ☑ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 4.0 | Corrected Temp (°C): 4.0

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Des Moines SC

Client Information	Sampler: Brooke Wasson / Paige Richards	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@Eurofinsus.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd.com	WO #:			
Project Name: MidAmerican WSEC CCR Background	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Rad226/Rad228/Rad228/228 combined	6020A CCR Metals List, 7470A Mercury	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N		
TW1-GW-0425	4/1/25	0815	G	W	N	N	X	X	X	X	X	5	
TW2-GW-0425	3/31/25	1900	G	W	N	N	X	X	X	X	X	5	
MW34-GW-0425	4/1/25	1055	G	W	N	N	X	X	X	X	X	5	
MW307-GW-0425	3/31/25	1630	G	W	N	N	X	X	X	X	X	5	
MW307D-GW-0425	3/31/25	1540	G	W	N	Y	X	X	X	X	X	15	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements. Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Brooke Wasson	4/1/25 1350	GHD	CGCC	4.2.25 0915	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-303159-1

Login Number: 303159
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Job ID: 310-303159-1
Project/Site: MidAmerican WSEC CCR Background

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-303159-1	TW1-GW-0425	88.1
310-303159-2	TW2-GW-0425	87.6
310-303159-3	MW34-GW-0425	90.9
310-303159-4	MW307-GW-0425	84.6
310-303159-5	MW307D-GW-0425	94.2
310-303159-5 MS	MW307D-GW-0425	91.4
310-303159-5 MSD	MW307D-GW-0425	94.9
LCS 160-710991/2-A	Lab Control Sample	88.4
MB 160-710991/1-A	Method Blank	90.2

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-303159-1	TW1-GW-0425	88.1	76.3
310-303159-2	TW2-GW-0425	87.6	80.7
310-303159-3	MW34-GW-0425	90.9	81.5
310-303159-4	MW307-GW-0425	84.6	79.3
310-303159-5	MW307D-GW-0425	94.2	81.9
310-303159-5 MS	MW307D-GW-0425	91.4	82.2
310-303159-5 MSD	MW307D-GW-0425	94.9	81.9
LCS 160-710992/2-A	Lab Control Sample	88.4	81.1
MB 160-710992/1-A	Method Blank	90.2	79.3

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 5/2/2025 3:51:03 PM

JOB DESCRIPTION

MEC Walter Scott - Monofill
Monofill

JOB NUMBER

310-303421-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
5/2/2025 3:51:03 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 11
Definitions 32
QC Sample Results 33
QC Association 39
Chronicle 44
Certification Summary 50
Method Summary 51
Chain of Custody 52
Receipt Checklists 59
Tracer Carrier Summary 60

Job ID: 310-303421-1 Eurofins Cedar Falls

Job Narrative
310-303421-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/3/2025 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3°C, 3.4°C, 3.9°C and 10.4°C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: MW156D-GW-0425 (310-303421-1), MW227D-GW-0425 (310-303421-2), MW105-GW-0425 (310-303421-3), MW108-GW-0425 (310-303421-4), MW133-GW-0425 (310-303421-5), MW157-GW-0425 (310-303421-6), MW158-GW-0425 (310-303421-7), MW159-GW-0425 (310-303421-8), MW190-GW-0425 (310-303421-9), MW191-GW-0425 (310-303421-10), MW240R-GW-0425 (310-303421-11), MW244-GW-0425 (310-303421-12), MW245-GW-0425 (310-303421-13), MW245-GW-0425 (310-303421-13[MS]), MW245-GW-0425 (310-303421-13[MSD]), MW246-GW-0425 (310-303421-14), MW247-GW-0425 (310-303421-15), MW248-GW-0425 (310-303421-16), MW250-GW-0425 (310-303421-17), DP03-GW-0425 (310-303421-18) and DP04-GW-0425 (310-303421-19). This does not meet regulatory requirements.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW156D-GW-0425 (310-303421-1), MW227D-GW-0425 (310-303421-2), MW105-GW-0425 (310-303421-3), MW108-GW-0425 (310-303421-4), MW133-GW-0425 (310-303421-5), MW157-GW-0425 (310-303421-6), MW158-GW-0425 (310-303421-7), MW159-GW-0425 (310-303421-8), MW190-GW-0425 (310-303421-9), MW191-GW-0425 (310-303421-10), MW240R-GW-0425 (310-303421-11), MW244-GW-0425 (310-303421-12), MW245-GW-0425 (310-303421-13), MW246-GW-0425 (310-303421-14) and MW247-GW-0425 (310-303421-15). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW248-GW-0425 (310-303421-16), MW250-GW-0425 (310-303421-17), DP03-GW-0425 (310-303421-18) and DP04-GW-0425 (310-303421-19). Elevated reporting limits (RLs) are provided.

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

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

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

Job ID: 310-303421-2 Eurofins Cedar Falls

Job Narrative
310-303421-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/3/2025 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3°C, 3.4°C, 3.9°C and 10.4°C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: MW156D-GW-0425 (310-303421-1), MW227D-GW-0425 (310-303421-2), MW105-GW-0425 (310-303421-3), MW108-GW-0425 (310-303421-4), MW133-GW-0425 (310-303421-5), MW157-GW-0425 (310-303421-6), MW158-GW-0425 (310-303421-7), MW159-GW-0425 (310-303421-8), MW190-GW-0425 (310-303421-9), MW191-GW-0425 (310-303421-10), MW240R-GW-0425 (310-303421-11), MW244-GW-0425 (310-303421-12), MW245-GW-0425 (310-303421-13), MW245-GW-0425 (310-303421-13[MS]), MW245-GW-0425 (310-303421-13[MSD]), MW246-GW-0425 (310-303421-14), MW247-GW-0425 (310-303421-15), MW248-GW-0425 (310-303421-16), MW250-GW-0425 (310-303421-17), DP03-GW-0425 (310-303421-18) and DP04-GW-0425 (310-303421-19). This does not meet regulatory requirements.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-303421-1	MW156D-GW-0425	Water	04/03/25 10:40	04/03/25 16:50
310-303421-2	MW227D-GW-0425	Water	04/02/25 16:20	04/03/25 16:50
310-303421-3	MW105-GW-0425	Water	04/02/25 14:25	04/03/25 16:50
310-303421-4	MW108-GW-0425	Water	04/02/25 14:50	04/03/25 16:50
310-303421-5	MW133-GW-0425	Water	04/02/25 17:20	04/03/25 16:50
310-303421-6	MW157-GW-0425	Water	04/02/25 16:55	04/03/25 16:50
310-303421-7	MW158-GW-0425	Water	04/02/25 17:20	04/03/25 16:50
310-303421-8	MW159-GW-0425	Water	04/02/25 17:55	04/03/25 16:50
310-303421-9	MW190-GW-0425	Water	04/02/25 18:15	04/03/25 16:50
310-303421-10	MW191-GW-0425	Water	04/02/25 18:35	04/03/25 16:50
310-303421-11	MW240R-GW-0425	Water	04/02/25 09:08	04/03/25 16:50
310-303421-12	MW244-GW-0425	Water	04/02/25 18:00	04/03/25 16:50
310-303421-13	MW245-GW-0425	Water	04/02/25 19:15	04/03/25 16:50
310-303421-14	MW246-GW-0425	Water	04/02/25 18:45	04/03/25 16:50
310-303421-15	MW247-GW-0425	Water	04/02/25 19:15	04/03/25 16:50
310-303421-16	MW248-GW-0425	Water	04/02/25 20:10	04/03/25 16:50
310-303421-17	MW250-GW-0425	Water	04/02/25 15:30	04/03/25 16:50
310-303421-18	DP03-GW-0425	Water	04/02/25 00:00	04/03/25 16:50
310-303421-19	DP04-GW-0425	Water	04/03/25 00:00	04/03/25 16:50

Detection Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW156D-GW-0425 — Lab Sample ID: 310-303421-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	30.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	494		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0101		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0894		0.00200		mg/L	1		6020B	Total/NA
Boron	0.217		0.100		mg/L	1		6020B	Total/NA
Calcium	325		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00293		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0992		0.0100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1330		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW227D-GW-0425 — Lab Sample ID: 310-303421-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.76		5.00		mg/L	5		9056A	Total/NA
Sulfate	251		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0137		0.00200		mg/L	1		6020B	Total/NA
Barium	0.367		0.00200		mg/L	1		6020B	Total/NA
Boron	0.142		0.100		mg/L	1		6020B	Total/NA
Calcium	166		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0658		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00211		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	810		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW105-GW-0425 — Lab Sample ID: 310-303421-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22.4		5.00		mg/L	5		9056A	Total/NA
Sulfate	154		5.00		mg/L	5		9056A	Total/NA
Boron	0.191		0.100		mg/L	1		6020B	Total/NA
Calcium	162		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	762		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW108-GW-0425 — Lab Sample ID: 310-303421-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27.4		5.00		mg/L	5		9056A	Total/NA
Fluoride	1.12		1.00		mg/L	5		9056A	Total/NA
Boron	0.221		0.100		mg/L	1		6020B	Total/NA
Calcium	127		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	682		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW133-GW-0425 — Lab Sample ID: 310-303421-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	101		5.00		mg/L	5		9056A	Total/NA
Sulfate	272		5.00		mg/L	5		9056A	Total/NA
Boron	0.376		0.100		mg/L	1		6020B	Total/NA
Calcium	190		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1020		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW133-GW-0425 (Continued) — Lab Sample ID: 310-303421-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW157-GW-0425 — Lab Sample ID: 310-303421-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	56.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	197		5.00		mg/L	5		9056A	Total/NA
Boron	0.344		0.100		mg/L	1		6020B	Total/NA
Calcium	222		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	984		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW158-GW-0425 — Lab Sample ID: 310-303421-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	524		20.0		mg/L	20		9056A	Total/NA
Boron	0.475		0.100		mg/L	1		6020B	Total/NA
Calcium	363		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1560		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW159-GW-0425 — Lab Sample ID: 310-303421-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	213		5.00		mg/L	5		9056A	Total/NA
Boron	0.308		0.100		mg/L	1		6020B	Total/NA
Calcium	198		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	866		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW190-GW-0425 — Lab Sample ID: 310-303421-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.4		5.00		mg/L	5		9056A	Total/NA
Sulfate	212		5.00		mg/L	5		9056A	Total/NA
Boron	0.139		0.100		mg/L	1		6020B	Total/NA
Calcium	169		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	810		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW191-GW-0425 — Lab Sample ID: 310-303421-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	187		5.00		mg/L	5		9056A	Total/NA
Boron	0.149		0.100		mg/L	1		6020B	Total/NA
Calcium	165		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	784		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW240R-GW-0425 — Lab Sample ID: 310-303421-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	24.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	212		5.00		mg/L	5		9056A	Total/NA
Boron	0.305		0.100		mg/L	1		6020B	Total/NA
Calcium	156		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	842		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.8	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW244-GW-0425 — Lab Sample ID: 310-303421-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	66.3		5.00		mg/L	5		9056A	Total/NA
Boron	0.140		0.100		mg/L	1		6020B	Total/NA
Calcium	136		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	676		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW245-GW-0425 — Lab Sample ID: 310-303421-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.37		5.00		mg/L	5		9056A	Total/NA
Sulfate	207		5.00		mg/L	5		9056A	Total/NA
Boron	0.349		0.100		mg/L	1		6020B	Total/NA
Calcium	195		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1030		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW246-GW-0425 — Lab Sample ID: 310-303421-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	45.8		5.00		mg/L	5		9056A	Total/NA
Boron	0.149		0.100		mg/L	1		6020B	Total/NA
Calcium	167		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	778		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW247-GW-0425 — Lab Sample ID: 310-303421-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.8		5.00		mg/L	5		9056A	Total/NA
Sulfate	120		5.00		mg/L	5		9056A	Total/NA
Boron	0.182		0.100		mg/L	1		6020B	Total/NA
Calcium	145		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	708		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW248-GW-0425 — Lab Sample ID: 310-303421-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	157		5.00		mg/L	5		9056A	Total/NA
Boron	0.176		0.100		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW248-GW-0425 (Continued) — Lab Sample ID: 310-303421-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	153		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	740		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW250-GW-0425 — Lab Sample ID: 310-303421-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	207		5.00		mg/L	5		9056A	Total/NA
Boron	0.240		0.100		mg/L	1		6020B	Total/NA
Calcium	199		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	926		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP03-GW-0425 — Lab Sample ID: 310-303421-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	151		5.00		mg/L	5		9056A	Total/NA
Boron	0.188		0.100		mg/L	1		6020B	Total/NA
Calcium	162		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	758		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP04-GW-0425 — Lab Sample ID: 310-303421-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	209		5.00		mg/L	5		9056A	Total/NA
Boron	0.303		0.100		mg/L	1		6020B	Total/NA
Calcium	157		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	806		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW156D-GW-0425
Lab Sample ID: 310-303421-1

Date Collected: 04/03/25 10:40
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.5**		5.00		mg/L			04/09/25 14:31	5
Fluoride	<1.00		1.00		mg/L			04/09/25 14:31	5
Sulfate	**494**		5.00		mg/L			04/09/25 14:31	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 19:44	1
Arsenic	**0.0101**		0.00200		mg/L		04/07/25 09:30	04/08/25 19:44	1
Barium	**0.0894**		0.00200		mg/L		04/07/25 09:30	04/08/25 19:44	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 19:44	1
Boron	**0.217**		0.100		mg/L		04/07/25 09:30	04/09/25 16:37	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/08/25 19:44	1
Calcium	**325**		0.500		mg/L		04/07/25 09:30	04/08/25 19:44	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 19:44	1
Cobalt	**0.00293**		0.000500		mg/L		04/07/25 09:30	04/08/25 19:44	1
Lithium	**0.0992**		0.0100		mg/L		04/07/25 09:30	04/08/25 19:44	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/08/25 19:44	1
Molybdenum	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 19:44	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 19:44	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 19:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/09/25 09:40	04/10/25 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1330**		50.0		mg/L			04/08/25 15:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			04/04/25 00:41	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.318	U	0.191	0.192	1.00	0.318	pCi/L	04/08/25 07:42	05/01/25 16:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*92.7*		*30 - 110*	*04/08/25 07:42*	*05/01/25 16:35*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.539	U	0.350	0.353	1.00	0.539	pCi/L	04/08/25 07:48	05/01/25 09:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*92.7*		*30 - 110*	*04/08/25 07:48*	*05/01/25 09:51*	*1*
Y Carrier	*79.6*		*30 - 110*	*04/08/25 07:48*	*05/01/25 09:51*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW156D-GW-0425

Date Collected: 04/03/25 10:40
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-1

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.602		0.399	0.402	5.00	0.539	pCi/L		05/02/25 11:35	1

Client Sample ID: MW227D-GW-0425
Lab Sample ID: 310-303421-2

Date Collected: 04/02/25 16:20
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.76**		5.00		mg/L			04/09/25 14:44	5
Fluoride	<1.00		1.00		mg/L			04/09/25 14:44	5
Sulfate	**251**		5.00		mg/L			04/09/25 14:44	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 19:46	1
Arsenic	**0.0137**		0.00200		mg/L		04/07/25 09:30	04/08/25 19:46	1
Barium	**0.367**		0.00200		mg/L		04/07/25 09:30	04/08/25 19:46	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 19:46	1
Boron	**0.142**		0.100		mg/L		04/07/25 09:30	04/09/25 16:39	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/08/25 19:46	1
Calcium	**166**		0.500		mg/L		04/07/25 09:30	04/08/25 19:46	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 19:46	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/08/25 19:46	1
Lithium	**0.0658**		0.0100		mg/L		04/07/25 09:30	04/08/25 19:46	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/08/25 19:46	1
Molybdenum	**0.00211**		0.00200		mg/L		04/07/25 09:30	04/08/25 19:46	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 19:46	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 19:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/09/25 09:40	04/10/25 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**810**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:18	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.342	U	0.222	0.223	1.00	0.342	pCi/L	04/08/25 07:42	05/01/25 16:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.3*		*30 - 110*	*04/08/25 07:42*	*05/01/25 16:36*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.852**		0.449	0.456	1.00	0.643	pCi/L	04/08/25 07:48	05/01/25 09:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.3*		*30 - 110*	*04/08/25 07:48*	*05/01/25 09:46*	*1*
Y Carrier	*79.6*		*30 - 110*	*04/08/25 07:48*	*05/01/25 09:46*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW227D-GW-0425

Date Collected: 04/02/25 16:20
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-2

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.09		0.501	0.508	5.00	0.643	pCi/L		05/02/25 11:35	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW105-GW-0425
Lab Sample ID: 310-303421-3
Date Collected: 04/02/25 14:25
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.4**		5.00		mg/L			04/09/25 14:57	5
Fluoride	<1.00		1.00		mg/L			04/09/25 14:57	5
Sulfate	**154**		5.00		mg/L			04/09/25 14:57	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.191**		0.100		mg/L		04/07/25 09:30	04/09/25 16:41	1
Calcium	**162**		0.500		mg/L		04/07/25 09:30	04/08/25 19:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**762**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:22	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW108-GW-0425
Lab Sample ID: 310-303421-4
Date Collected: 04/02/25 14:50
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.4**		5.00		mg/L			04/09/25 15:10	5
Fluoride	**1.12**		1.00		mg/L			04/09/25 15:10	5
Sulfate	<5.00		5.00		mg/L			04/09/25 15:10	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.221**		0.100		mg/L		04/07/25 09:30	04/09/25 16:44	1
Calcium	**127**		0.500		mg/L		04/07/25 09:30	04/08/25 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**682**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			04/03/25 23:09	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW133-GW-0425

Date Collected: 04/02/25 17:20
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	101		5.00		mg/L			04/09/25 15:23	5
Fluoride	<1.00		1.00		mg/L			04/09/25 15:23	5
Sulfate	272		5.00		mg/L			04/09/25 15:23	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.376		0.100		mg/L		04/07/25 09:30	04/09/25 16:46	1
Calcium	190		0.500		mg/L		04/07/25 09:30	04/08/25 19:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1020		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			04/04/25 00:00	1

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW157-GW-0425
Lab Sample ID: 310-303421-6
Date Collected: 04/02/25 16:55
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.1**		5.00		mg/L			04/09/25 15:36	5
Fluoride	<1.00		1.00		mg/L			04/09/25 15:36	5
Sulfate	**197**		5.00		mg/L			04/09/25 15:36	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.344**		0.100		mg/L		04/07/25 09:30	04/09/25 16:56	1
Calcium	**222**		0.500		mg/L		04/07/25 09:30	04/08/25 19:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**984**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			04/03/25 23:05	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW158-GW-0425
Lab Sample ID: 310-303421-7
Date Collected: 04/02/25 17:20
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.9**		5.00		mg/L			04/09/25 15:49	5
Fluoride	<1.00		1.00		mg/L			04/09/25 15:49	5
Sulfate	**524**		20.0		mg/L			04/10/25 09:32	20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.475**		0.100		mg/L		04/07/25 09:30	04/09/25 16:58	1
Calcium	**363**		0.500		mg/L		04/07/25 09:30	04/08/25 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1560**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			04/04/25 00:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW159-GW-0425

Date Collected: 04/02/25 17:55
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.6**		5.00		mg/L			04/09/25 16:02	5
Fluoride	<1.00		1.00		mg/L			04/09/25 16:02	5
Sulfate	**213**		5.00		mg/L			04/09/25 16:02	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.308**		0.100		mg/L		04/07/25 09:30	04/09/25 17:00	1
Calcium	**198**		0.500		mg/L		04/07/25 09:30	04/08/25 20:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**866**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			04/04/25 00:17	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW190-GW-0425

Date Collected: 04/02/25 18:15
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.4**		5.00		mg/L			04/09/25 16:15	5
Fluoride	<1.00		1.00		mg/L			04/09/25 16:15	5
Sulfate	**212**		5.00		mg/L			04/09/25 16:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.139**		0.100		mg/L		04/07/25 09:30	04/11/25 13:57	1
Calcium	**169**		0.500		mg/L		04/07/25 09:30	04/11/25 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**810**		50.0		mg/L			04/08/25 00:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/04/25 00:21	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW191-GW-0425
Lab Sample ID: 310-303421-10
Date Collected: 04/02/25 18:35
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.5**		5.00		mg/L			04/09/25 16:55	5
Fluoride	<1.00		1.00		mg/L			04/09/25 16:55	5
Sulfate	**187**		5.00		mg/L			04/09/25 16:55	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.149**		0.100		mg/L		04/07/25 09:30	04/11/25 13:36	1
Calcium	**165**		0.500		mg/L		04/07/25 09:30	04/11/25 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**784**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/04/25 00:08	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW240R-GW-0425
Lab Sample ID: 310-303421-11
Date Collected: 04/02/25 09:08
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.9**		5.00		mg/L			04/09/25 17:08	5
Fluoride	<1.00		1.00		mg/L			04/09/25 17:08	5
Sulfate	**212**		5.00		mg/L			04/09/25 17:08	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.305**		0.100		mg/L		04/07/25 09:30	04/11/25 13:55	1
Calcium	**156**		0.500		mg/L		04/07/25 09:30	04/11/25 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**842**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.8**	**HF**	1.0		SU			04/04/25 00:04	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW244-GW-0425
Lab Sample ID: 310-303421-12
Date Collected: 04/02/25 18:00
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.1**		5.00		mg/L			04/09/25 17:21	5
Fluoride	<1.00		1.00		mg/L			04/09/25 17:21	5
Sulfate	**66.3**		5.00		mg/L			04/09/25 17:21	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.140**		0.100		mg/L		04/07/25 09:30	04/11/25 13:45	1
Calcium	**136**		0.500		mg/L		04/07/25 09:30	04/11/25 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**676**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:31	1

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW245-GW-0425
Lab Sample ID: 310-303421-13
Date Collected: 04/02/25 19:15
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.37**		5.00		mg/L			04/09/25 17:34	5
Fluoride	<1.00		1.00		mg/L			04/09/25 17:34	5
Sulfate	**207**		5.00		mg/L			04/09/25 17:34	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.349**		0.100		mg/L		04/07/25 09:30	04/11/25 13:14	1
Calcium	**195**		0.500		mg/L		04/07/25 09:30	04/11/25 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1030**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			04/04/25 00:26	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW246-GW-0425
Lab Sample ID: 310-303421-14

Date Collected: 04/02/25 18:45
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.2**		5.00		mg/L			04/09/25 18:13	5
Fluoride	<1.00		1.00		mg/L			04/09/25 18:13	5
Sulfate	**45.8**		5.00		mg/L			04/09/25 18:13	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.149**		0.100		mg/L		04/07/25 09:30	04/11/25 13:31	1
Calcium	**167**		0.500		mg/L		04/07/25 09:30	04/11/25 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**778**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:47	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW247-GW-0425
Lab Sample ID: 310-303421-15
Date Collected: 04/02/25 19:15
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.8**		5.00		mg/L			04/09/25 18:26	5
Fluoride	<1.00		1.00		mg/L			04/09/25 18:26	5
Sulfate	**120**		5.00		mg/L			04/09/25 18:26	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.182**		0.100		mg/L		04/07/25 09:30	04/11/25 13:43	1
Calcium	**145**		0.500		mg/L		04/07/25 09:30	04/11/25 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**708**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:51	1

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW248-GW-0425
Lab Sample ID: 310-303421-16
Date Collected: 04/02/25 20:10
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.1**		5.00		mg/L			04/10/25 12:35	5
Fluoride	<1.00		1.00		mg/L			04/10/25 12:35	5
Sulfate	**157**		5.00		mg/L			04/10/25 12:35	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.176**		0.100		mg/L		04/07/25 09:30	04/11/25 13:33	1
Calcium	**153**		0.500		mg/L		04/07/25 09:30	04/11/25 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**740**		50.0		mg/L			04/08/25 00:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:35	1

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW250-GW-0425
Lab Sample ID: 310-303421-17
Date Collected: 04/02/25 15:30
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.2		5.00		mg/L			04/10/25 12:48	5
Fluoride	<1.00		1.00		mg/L			04/10/25 12:48	5
Sulfate	207		5.00		mg/L			04/10/25 12:48	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.240		0.100		mg/L		04/07/25 09:30	04/11/25 13:28	1
Calcium	199		0.500		mg/L		04/07/25 09:30	04/11/25 13:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	926		50.0		mg/L			04/08/25 16:50	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			04/03/25 23:27	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: DP03-GW-0425

Lab Sample ID: 310-303421-18

Date Collected: 04/02/25 00:00

Matrix: Water

Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.5**		5.00		mg/L			04/10/25 13:01	5
Fluoride	<1.00		1.00		mg/L			04/10/25 13:01	5
Sulfate	**151**		5.00		mg/L			04/10/25 13:01	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.188**		0.100		mg/L		04/07/25 09:30	04/11/25 13:38	1
Calcium	**162**		0.500		mg/L		04/07/25 09:30	04/11/25 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**758**		50.0		mg/L			04/08/25 16:50	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			04/03/25 23:13	1

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: DP04-GW-0425
Lab Sample ID: 310-303421-19

Date Collected: 04/03/25 00:00
Matrix: Water
Date Received: 04/03/25 16:50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.1**		5.00		mg/L			04/10/25 13:14	5
Fluoride	<1.00		1.00		mg/L			04/10/25 13:14	5
Sulfate	**209**		5.00		mg/L			04/10/25 13:14	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.303**		0.100		mg/L		04/07/25 09:30	04/11/25 13:40	1
Calcium	**157**		0.500		mg/L		04/07/25 09:30	04/11/25 13:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**806**		50.0		mg/L			04/08/25 15:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			04/04/25 01:03	1

Definitions/Glossary

Client: GHD Services Inc. Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-451219/3
Matrix: Water
Analysis Batch: 451219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			04/09/25 12:33	1
Fluoride	<0.200		0.200		mg/L			04/09/25 12:33	1
Sulfate	<1.00		1.00		mg/L			04/09/25 12:33	1

Lab Sample ID: LCS 310-451219/4
Matrix: Water
Analysis Batch: 451219

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.803		mg/L		98	90 - 110
Fluoride	2.00	2.047		mg/L		102	90 - 110
Sulfate	10.0	9.936		mg/L		99	90 - 110

Lab Sample ID: 310-303421-13 MS
Matrix: Water
Analysis Batch: 451219

Client Sample ID: MW245-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.37		25.0	30.75		mg/L		90	80 - 120
Fluoride	<1.00		5.00	5.246		mg/L		105	80 - 120
Sulfate	207		25.0	231.3	4	mg/L		97	80 - 120

Lab Sample ID: 310-303421-13 MSD
Matrix: Water
Analysis Batch: 451219

Client Sample ID: MW245-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.37		25.0	30.86		mg/L		90	80 - 120	0	15
Fluoride	<1.00		5.00	5.272		mg/L		105	80 - 120	0	15
Sulfate	207		25.0	230.1	4	mg/L		92	80 - 120	0	15

Lab Sample ID: MB 310-451618/3
Matrix: Water
Analysis Batch: 451618

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			04/10/25 11:17	1
Fluoride	<0.200		0.200		mg/L			04/10/25 11:17	1
Sulfate	<1.00		1.00		mg/L			04/10/25 11:17	1

Lab Sample ID: LCS 310-451618/4
Matrix: Water
Analysis Batch: 451618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.899		mg/L		99	90 - 110
Fluoride	2.00	2.068		mg/L		103	90 - 110
Sulfate	10.0	9.819		mg/L		98	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-450743/1-A
Matrix: Water
Analysis Batch: 451045

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 18:38	1
Arsenic	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 18:38	1
Barium	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 18:38	1
Beryllium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 18:38	1
Cadmium	<0.000200		0.000200		mg/L		04/07/25 09:30	04/08/25 18:38	1
Calcium	<0.500		0.500		mg/L		04/07/25 09:30	04/08/25 18:38	1
Chromium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 18:38	1
Cobalt	<0.000500		0.000500		mg/L		04/07/25 09:30	04/08/25 18:38	1
Lithium	<0.0100		0.0100		mg/L		04/07/25 09:30	04/08/25 18:38	1
Lead	<0.000500		0.000500		mg/L		04/07/25 09:30	04/08/25 18:38	1
Molybdenum	<0.00200		0.00200		mg/L		04/07/25 09:30	04/08/25 18:38	1
Selenium	<0.00500		0.00500		mg/L		04/07/25 09:30	04/08/25 18:38	1
Thallium	<0.00100		0.00100		mg/L		04/07/25 09:30	04/08/25 18:38	1

Lab Sample ID: MB 310-450743/1-A
Matrix: Water
Analysis Batch: 451166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		04/07/25 09:30	04/09/25 15:44	1

Lab Sample ID: LCS 310-450743/2-A
Matrix: Water
Analysis Batch: 451045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2102		mg/L		105	80 - 120
Arsenic	0.200	0.1981		mg/L		99	80 - 120
Barium	0.100	0.1060		mg/L		106	80 - 120
Beryllium	0.100	0.1014		mg/L		101	80 - 120
Cadmium	0.100	0.1004		mg/L		100	80 - 120
Calcium	2.00	1.798		mg/L		90	80 - 120
Chromium	0.100	0.1060		mg/L		106	80 - 120
Cobalt	0.100	0.1095		mg/L		110	80 - 120
Lithium	0.200	0.2149		mg/L		107	80 - 120
Lead	0.200	0.2254		mg/L		113	80 - 120
Molybdenum	0.200	0.2020		mg/L		101	80 - 120
Selenium	0.400	0.4024		mg/L		101	80 - 120
Thallium	0.100	0.09765		mg/L		98	80 - 120

Lab Sample ID: LCS 310-450743/2-A
Matrix: Water
Analysis Batch: 451166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2295		mg/L		115	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-450744/1-A
Matrix: Water
Analysis Batch: 451403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		04/07/25 09:30	04/11/25 13:09	1
Calcium	<0.500		0.500		mg/L		04/07/25 09:30	04/11/25 13:09	1

Lab Sample ID: LCS 310-450744/2-A
Matrix: Water
Analysis Batch: 451403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2038		mg/L		102	80 - 120
Calcium	2.00	1.925		mg/L		96	80 - 120

Lab Sample ID: 310-303421-13 MS
Matrix: Water
Analysis Batch: 451403

Client Sample ID: MW245-GW-0425
Prep Type: Total/NA
Prep Batch: 450744

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.349		0.200	0.5506		mg/L		101	75 - 125
Calcium	195		2.00	189.1	4	mg/L		-307	75 - 125

Lab Sample ID: 310-303421-13 MSD
Matrix: Water
Analysis Batch: 451403

Client Sample ID: MW245-GW-0425
Prep Type: Total/NA
Prep Batch: 450744

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.349		0.200	0.5628		mg/L		107	75 - 125	2	20
Calcium	195		2.00	193.7	4	mg/L		-77	75 - 125	2	20

Lab Sample ID: 310-303421-9 DU
Matrix: Water
Analysis Batch: 451403

Client Sample ID: MW190-GW-0425
Prep Type: Total/NA
Prep Batch: 450744

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	0.139		0.1328		mg/L		4	20
Calcium	169		165.0		mg/L		2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-451002/1-A
Matrix: Water
Analysis Batch: 451223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		04/09/25 09:40	04/10/25 10:00	1

Lab Sample ID: LCS 310-451002/2-A
Matrix: Water
Analysis Batch: 451223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001761		mg/L		106	80 - 120

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

Lab Sample ID: MB 310-450904/1
Matrix: Water
Analysis Batch: 450904

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			04/08/25 00:30	1

Lab Sample ID: LCS 310-450904/2
Matrix: Water
Analysis Batch: 450904

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1044		mg/L		104	88 - 110

Lab Sample ID: 310-303421-2 DU
Matrix: Water
Analysis Batch: 450904

Client Sample ID: MW227D-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	810		816.0		mg/L		0.7	16

Lab Sample ID: MB 310-450905/1
Matrix: Water
Analysis Batch: 450905

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			04/08/25 00:37	1

Lab Sample ID: LCS 310-450905/2
Matrix: Water
Analysis Batch: 450905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1012		mg/L		101	88 - 110

Lab Sample ID: 310-303421-10 DU
Matrix: Water
Analysis Batch: 450905

Client Sample ID: MW191-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	784		758.0		mg/L		3	16

Lab Sample ID: MB 310-451008/1
Matrix: Water
Analysis Batch: 451008

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			04/08/25 15:30	1

Lab Sample ID: LCS 310-451008/2
Matrix: Water
Analysis Batch: 451008

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	980.0		mg/L		98	88 - 110

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

Lab Sample ID: 310-303421-1 DU
Matrix: Water
Analysis Batch: 451008

Client Sample ID: MW156D-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1330			1330		mg/L				0	16

Lab Sample ID: MB 310-451017/1
Matrix: Water
Analysis Batch: 451017

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			04/08/25 16:50	1

Lab Sample ID: LCS 310-451017/2
Matrix: Water
Analysis Batch: 451017

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	950.0		mg/L		95	88 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-450649/1
Matrix: Water
Analysis Batch: 450649

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101	98 - 102		

Lab Sample ID: LCS 310-450649/29
Matrix: Water
Analysis Batch: 450649

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		101	98 - 102		

Lab Sample ID: 310-303421-15 DU
Matrix: Water
Analysis Batch: 450649

Client Sample ID: MW247-GW-0425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	HF		7.7		SU				0.7	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-711346/1-A
Matrix: Water
Analysis Batch: 715645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 711346

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.355	U	0.204	0.204	1.00	0.355	pCi/L	04/08/25 07:42	05/01/25 14:21	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-711346/1-A
Matrix: Water
Analysis Batch: 715645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 711346

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	86.1		30 - 110	04/08/25 07:42	05/01/25 14:21	1

Lab Sample ID: LCS 160-711346/2-A
Matrix: Water
Analysis Batch: 715645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 711346

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.108		1.22	1.00	0.311	pCi/L	95	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	89.4		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-711347/1-A
Matrix: Water
Analysis Batch: 715644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 711347

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.589	U	0.290	0.290	1.00	0.589	pCi/L	04/08/25 07:48	05/01/25 09:50	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	86.1		30 - 110	04/08/25 07:48	05/01/25 09:50	1
Y Carrier	79.3		30 - 110	04/08/25 07:48	05/01/25 09:50	1

Lab Sample ID: LCS 160-711347/2-A
Matrix: Water
Analysis Batch: 715644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 711347

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.49	11.15		1.47	1.00	0.573	pCi/L	117	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	89.4		30 - 110
Y Carrier	80.7		30 - 110

HPLC/IC

Analysis Batch: 451219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	9056A	
310-303421-2	MW227D-GW-0425	Total/NA	Water	9056A	
310-303421-3	MW105-GW-0425	Total/NA	Water	9056A	
310-303421-4	MW108-GW-0425	Total/NA	Water	9056A	
310-303421-5	MW133-GW-0425	Total/NA	Water	9056A	
310-303421-6	MW157-GW-0425	Total/NA	Water	9056A	
310-303421-7	MW158-GW-0425	Total/NA	Water	9056A	
310-303421-7	MW158-GW-0425	Total/NA	Water	9056A	
310-303421-8	MW159-GW-0425	Total/NA	Water	9056A	
310-303421-9	MW190-GW-0425	Total/NA	Water	9056A	
310-303421-10	MW191-GW-0425	Total/NA	Water	9056A	
310-303421-11	MW240R-GW-0425	Total/NA	Water	9056A	
310-303421-12	MW244-GW-0425	Total/NA	Water	9056A	
310-303421-13	MW245-GW-0425	Total/NA	Water	9056A	
310-303421-14	MW246-GW-0425	Total/NA	Water	9056A	
310-303421-15	MW247-GW-0425	Total/NA	Water	9056A	
MB 310-451219/3	Method Blank	Total/NA	Water	9056A	
LCS 310-451219/4	Lab Control Sample	Total/NA	Water	9056A	
310-303421-13 MS	MW245-GW-0425	Total/NA	Water	9056A	
310-303421-13 MSD	MW245-GW-0425	Total/NA	Water	9056A	

Analysis Batch: 451618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-16	MW248-GW-0425	Total/NA	Water	9056A	
310-303421-17	MW250-GW-0425	Total/NA	Water	9056A	
310-303421-18	DP03-GW-0425	Total/NA	Water	9056A	
310-303421-19	DP04-GW-0425	Total/NA	Water	9056A	
MB 310-451618/3	Method Blank	Total/NA	Water	9056A	
LCS 310-451618/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 450743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	3005A	
310-303421-2	MW227D-GW-0425	Total/NA	Water	3005A	
310-303421-3	MW105-GW-0425	Total/NA	Water	3005A	
310-303421-4	MW108-GW-0425	Total/NA	Water	3005A	
310-303421-5	MW133-GW-0425	Total/NA	Water	3005A	
310-303421-6	MW157-GW-0425	Total/NA	Water	3005A	
310-303421-7	MW158-GW-0425	Total/NA	Water	3005A	
310-303421-8	MW159-GW-0425	Total/NA	Water	3005A	
MB 310-450743/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-450743/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 450744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-9	MW190-GW-0425	Total/NA	Water	3005A	
310-303421-10	MW191-GW-0425	Total/NA	Water	3005A	
310-303421-11	MW240R-GW-0425	Total/NA	Water	3005A	
310-303421-12	MW244-GW-0425	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 450744 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-13	MW245-GW-0425	Total/NA	Water	3005A	
310-303421-14	MW246-GW-0425	Total/NA	Water	3005A	
310-303421-15	MW247-GW-0425	Total/NA	Water	3005A	
310-303421-16	MW248-GW-0425	Total/NA	Water	3005A	
310-303421-17	MW250-GW-0425	Total/NA	Water	3005A	
310-303421-18	DP03-GW-0425	Total/NA	Water	3005A	
310-303421-19	DP04-GW-0425	Total/NA	Water	3005A	
MB 310-450744/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-450744/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-303421-13 MS	MW245-GW-0425	Total/NA	Water	3005A	
310-303421-13 MSD	MW245-GW-0425	Total/NA	Water	3005A	
310-303421-9 DU	MW190-GW-0425	Total/NA	Water	3005A	

Prep Batch: 451002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	7470A	
310-303421-2	MW227D-GW-0425	Total/NA	Water	7470A	
MB 310-451002/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-451002/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 451045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	6020B	450743
310-303421-2	MW227D-GW-0425	Total/NA	Water	6020B	450743
310-303421-3	MW105-GW-0425	Total/NA	Water	6020B	450743
310-303421-4	MW108-GW-0425	Total/NA	Water	6020B	450743
310-303421-5	MW133-GW-0425	Total/NA	Water	6020B	450743
310-303421-6	MW157-GW-0425	Total/NA	Water	6020B	450743
310-303421-7	MW158-GW-0425	Total/NA	Water	6020B	450743
310-303421-8	MW159-GW-0425	Total/NA	Water	6020B	450743
MB 310-450743/1-A	Method Blank	Total/NA	Water	6020B	450743
LCS 310-450743/2-A	Lab Control Sample	Total/NA	Water	6020B	450743

Analysis Batch: 451166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	6020B	450743
310-303421-2	MW227D-GW-0425	Total/NA	Water	6020B	450743
310-303421-3	MW105-GW-0425	Total/NA	Water	6020B	450743
310-303421-4	MW108-GW-0425	Total/NA	Water	6020B	450743
310-303421-5	MW133-GW-0425	Total/NA	Water	6020B	450743
310-303421-6	MW157-GW-0425	Total/NA	Water	6020B	450743
310-303421-7	MW158-GW-0425	Total/NA	Water	6020B	450743
310-303421-8	MW159-GW-0425	Total/NA	Water	6020B	450743
MB 310-450743/1-A	Method Blank	Total/NA	Water	6020B	450743
LCS 310-450743/2-A	Lab Control Sample	Total/NA	Water	6020B	450743

Analysis Batch: 451223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	7470A	451002
310-303421-2	MW227D-GW-0425	Total/NA	Water	7470A	451002
MB 310-451002/1-A	Method Blank	Total/NA	Water	7470A	451002

Metals (Continued)

Analysis Batch: 451223 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-451002/2-A	Lab Control Sample	Total/NA	Water	7470A	451002

Analysis Batch: 451403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-9	MW190-GW-0425	Total/NA	Water	6020B	450744
310-303421-10	MW191-GW-0425	Total/NA	Water	6020B	450744
310-303421-11	MW240R-GW-0425	Total/NA	Water	6020B	450744
310-303421-12	MW244-GW-0425	Total/NA	Water	6020B	450744
310-303421-13	MW245-GW-0425	Total/NA	Water	6020B	450744
310-303421-14	MW246-GW-0425	Total/NA	Water	6020B	450744
310-303421-15	MW247-GW-0425	Total/NA	Water	6020B	450744
310-303421-16	MW248-GW-0425	Total/NA	Water	6020B	450744
310-303421-17	MW250-GW-0425	Total/NA	Water	6020B	450744
310-303421-18	DP03-GW-0425	Total/NA	Water	6020B	450744
310-303421-19	DP04-GW-0425	Total/NA	Water	6020B	450744
MB 310-450744/1-A	Method Blank	Total/NA	Water	6020B	450744
LCS 310-450744/2-A	Lab Control Sample	Total/NA	Water	6020B	450744
310-303421-13 MS	MW245-GW-0425	Total/NA	Water	6020B	450744
310-303421-13 MSD	MW245-GW-0425	Total/NA	Water	6020B	450744
310-303421-9 DU	MW190-GW-0425	Total/NA	Water	6020B	450744

General Chemistry

Analysis Batch: 450649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-2	MW227D-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-3	MW105-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-4	MW108-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-5	MW133-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-6	MW157-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-7	MW158-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-8	MW159-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-9	MW190-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-10	MW191-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-11	MW240R-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-12	MW244-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-13	MW245-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-14	MW246-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-15	MW247-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-16	MW248-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-17	MW250-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-18	DP03-GW-0425	Total/NA	Water	SM 4500 H+ B	
310-303421-19	DP04-GW-0425	Total/NA	Water	SM 4500 H+ B	
LCS 310-450649/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-450649/29	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-303421-C-13 MS	310-303421-C-13 MS	Total/NA	Water	SM 4500 H+ B	
310-303421-15 DU	MW247-GW-0425	Total/NA	Water	SM 4500 H+ B	

QC Association Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

General Chemistry

Analysis Batch: 450904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-2	MW227D-GW-0425	Total/NA	Water	SM 2540C	
310-303421-3	MW105-GW-0425	Total/NA	Water	SM 2540C	
310-303421-4	MW108-GW-0425	Total/NA	Water	SM 2540C	
310-303421-5	MW133-GW-0425	Total/NA	Water	SM 2540C	
310-303421-6	MW157-GW-0425	Total/NA	Water	SM 2540C	
310-303421-7	MW158-GW-0425	Total/NA	Water	SM 2540C	
310-303421-8	MW159-GW-0425	Total/NA	Water	SM 2540C	
310-303421-9	MW190-GW-0425	Total/NA	Water	SM 2540C	
MB 310-450904/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-450904/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-303421-2 DU	MW227D-GW-0425	Total/NA	Water	SM 2540C	

Analysis Batch: 450905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-10	MW191-GW-0425	Total/NA	Water	SM 2540C	
310-303421-11	MW240R-GW-0425	Total/NA	Water	SM 2540C	
310-303421-12	MW244-GW-0425	Total/NA	Water	SM 2540C	
310-303421-13	MW245-GW-0425	Total/NA	Water	SM 2540C	
310-303421-14	MW246-GW-0425	Total/NA	Water	SM 2540C	
310-303421-15	MW247-GW-0425	Total/NA	Water	SM 2540C	
310-303421-16	MW248-GW-0425	Total/NA	Water	SM 2540C	
MB 310-450905/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-450905/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-303421-10 DU	MW191-GW-0425	Total/NA	Water	SM 2540C	

Analysis Batch: 451008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	SM 2540C	
310-303421-19	DP04-GW-0425	Total/NA	Water	SM 2540C	
MB 310-451008/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-451008/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-303421-1 DU	MW156D-GW-0425	Total/NA	Water	SM 2540C	

Analysis Batch: 451017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-17	MW250-GW-0425	Total/NA	Water	SM 2540C	
310-303421-18	DP03-GW-0425	Total/NA	Water	SM 2540C	
MB 310-451017/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-451017/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 711346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	PrecSep-21	
310-303421-2	MW227D-GW-0425	Total/NA	Water	PrecSep-21	
MB 160-711346/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-711346/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Rad

Prep Batch: 711347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303421-1	MW156D-GW-0425	Total/NA	Water	PrecSep_0	
310-303421-2	MW227D-GW-0425	Total/NA	Water	PrecSep_0	
MB 160-711347/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-711347/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW156D-GW-0425
Lab Sample ID: 310-303421-1
Date Collected: 04/03/25 10:40
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 14:31
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:37
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:44
Total/NA	Prep	7470A			451002	F5MW	EET CF	04/09/25 09:40
Total/NA	Analysis	7470A		1	451223	F5MW	EET CF	04/10/25 10:15
Total/NA	Analysis	SM 2540C		1	451008	XJ7V	EET CF	04/08/25 15:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:41
Total/NA	Prep	PrecSep-21			711346	OGC	EET SL	04/08/25 07:42
Total/NA	Analysis	9315		1	715645	SWS	EET SL	05/01/25 16:35
Total/NA	Prep	PrecSep_0			711347	OGC	EET SL	04/08/25 07:48
Total/NA	Analysis	9320		1	715644	SWS	EET SL	05/01/25 09:51
Total/NA	Analysis	Ra226_Ra228		1	715708	CAH	EET SL	05/02/25 11:35

Client Sample ID: MW227D-GW-0425
Lab Sample ID: 310-303421-2
Date Collected: 04/02/25 16:20
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 14:44
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:39
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:46
Total/NA	Prep	7470A			451002	F5MW	EET CF	04/09/25 09:40
Total/NA	Analysis	7470A		1	451223	F5MW	EET CF	04/10/25 10:17
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:18
Total/NA	Prep	PrecSep-21			711346	OGC	EET SL	04/08/25 07:42
Total/NA	Analysis	9315		1	715645	SWS	EET SL	05/01/25 16:36
Total/NA	Prep	PrecSep_0			711347	OGC	EET SL	04/08/25 07:48
Total/NA	Analysis	9320		1	715645	SWS	EET SL	05/01/25 09:46
Total/NA	Analysis	Ra226_Ra228		1	715708	CAH	EET SL	05/02/25 11:35

Client Sample ID: MW105-GW-0425
Lab Sample ID: 310-303421-3
Date Collected: 04/02/25 14:25
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 14:57
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:41

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW105-GW-0425
Lab Sample ID: 310-303421-3
Date Collected: 04/02/25 14:25
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:49
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:22

Client Sample ID: MW108-GW-0425
Lab Sample ID: 310-303421-4
Date Collected: 04/02/25 14:50
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 15:10
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:44
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:52
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:09

Client Sample ID: MW133-GW-0425
Lab Sample ID: 310-303421-5
Date Collected: 04/02/25 17:20
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 15:23
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:46
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:55
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:00

Client Sample ID: MW157-GW-0425
Lab Sample ID: 310-303421-6
Date Collected: 04/02/25 16:55
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 15:36
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:56
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 19:58
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:05

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW158-GW-0425
Lab Sample ID: 310-303421-7
Date Collected: 04/02/25 17:20
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 15:49
Total/NA	Analysis	9056A		20	451219	WZC8	EET CF	04/10/25 09:32
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 16:58
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 20:00
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:37

Client Sample ID: MW159-GW-0425
Lab Sample ID: 310-303421-8
Date Collected: 04/02/25 17:55
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 16:02
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451166	NFT2	EET CF	04/09/25 17:00
Total/NA	Prep	3005A			450743	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451045	NFT2	EET CF	04/08/25 20:12
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:17

Client Sample ID: MW190-GW-0425
Lab Sample ID: 310-303421-9
Date Collected: 04/02/25 18:15
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 16:15
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:57
Total/NA	Analysis	SM 2540C		1	450904	MDU9	EET CF	04/08/25 00:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:21

Client Sample ID: MW191-GW-0425
Lab Sample ID: 310-303421-10
Date Collected: 04/02/25 18:35
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 16:55
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:36
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:08

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: MW240R-GW-0425
Lab Sample ID: 310-303421-11
Date Collected: 04/02/25 09:08
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 17:08
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:55
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:04

Client Sample ID: MW244-GW-0425
Lab Sample ID: 310-303421-12
Date Collected: 04/02/25 18:00
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 17:21
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:45
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:31

Client Sample ID: MW245-GW-0425
Lab Sample ID: 310-303421-13
Date Collected: 04/02/25 19:15
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 17:34
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:14
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 00:26

Client Sample ID: MW246-GW-0425
Lab Sample ID: 310-303421-14
Date Collected: 04/02/25 18:45
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 18:13
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:31
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:47

Lab Chronicle

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Client Sample ID: MW247-GW-0425
Date Collected: 04/02/25 19:15
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451219	WZC8	EET CF	04/09/25 18:26
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:43
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:51

Client Sample ID: MW248-GW-0425
Date Collected: 04/02/25 20:10
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451618	WZC8	EET CF	04/10/25 12:35
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:33
Total/NA	Analysis	SM 2540C		1	450905	MDU9	EET CF	04/08/25 00:37
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:35

Client Sample ID: MW250-GW-0425
Date Collected: 04/02/25 15:30
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451618	WZC8	EET CF	04/10/25 12:48
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:28
Total/NA	Analysis	SM 2540C		1	451017	XJ7V	EET CF	04/08/25 16:50
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:27

Client Sample ID: DP03-GW-0425
Date Collected: 04/02/25 00:00
Date Received: 04/03/25 16:50

Lab Sample ID: 310-303421-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451618	WZC8	EET CF	04/10/25 13:01
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:38
Total/NA	Analysis	SM 2540C		1	451017	XJ7V	EET CF	04/08/25 16:50
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/03/25 23:13

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Client Sample ID: DP04-GW-0425
Lab Sample ID: 310-303421-19

Date Collected: 04/03/25 00:00
Matrix: Water
Date Received: 04/03/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	451618	WZC8	EET CF	04/10/25 13:14
Total/NA	Prep	3005A			450744	Y3EC	EET CF	04/07/25 09:30
Total/NA	Analysis	6020B		1	451403	NFT2	EET CF	04/11/25 13:40
Total/NA	Analysis	SM 2540C		1	451008	XJ7V	EET CF	04/08/25 15:30
Total/NA	Analysis	SM 4500 H+ B		1	450649	W9YR	EET CF	04/04/25 01:03

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 310-303421-1
Project/Site: MEC Walter Scott - Monofill

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-303421 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines STATE IA Project.

Receipt Information

Date/Time Received: DATE 4.3.25 TIME 1650 Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 1 of 34
Cooler Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.3 Corrected Temp (°C): 1.3

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines STATE IA Project:

Receipt Information

Date/Time Received: DATE 4.3.25 TIME 1650 Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 2 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.9 | Corrected Temp (°C): 3.9

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines STATE IA | Project:

Receipt Information

Date/Time Received: DATE 4.3.25 TIME 1650 | Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID.
Multiple Coolers?	☑ Yes	☐ No	*If yes:* Cooler # 3 of 14
Cooler Custody Seals Present?	☐ Yes	☑ No	*If yes.* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.4 | Corrected Temp (°C): 3.4

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHP

City/State: CITY Des Moines | STATE IA | Project.

Receipt Information

Date/Time Received: DATE 4-3-25 | TIME 1650 | Received By. PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

LS2, LS1, LS3, MW156D

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 10.1 | Corrected Temp (°C): 10.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:	PL 1L	PL 250N
Uncorrected Temp (°C):	10.4	11.2
Corrected Temp (°C):	10.4	11.2

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☒ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone. 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

Tes America Des Moines Sc eurofins

Client Information	Sampler: B Wasson P Richards	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-104768-25189 1
Client Contact: Kevin Armstrong	Phone: 563-599-7524	E-Mail: Zach Bindert@et.eurofinsus.com	State of Origin:	Page: Page 1 of 3
Company: GHD Services Inc.	PWSID:			Job #:
Address: 11228 Aurora Avenue	Due Date Requested.			
City: Des Moines	TAT Requested (days):			
State Zip: IA, 50322-7905	Compliance Project: Δ Yes Δ No			
Phone: 515-414-3935(Tel)	PO #: 340-016858			
Email: Kevin.Armstrong@ghd com	WO #: 12592594			
Project Name: MEC Walter Scott - Monofill	Project #: 31017236			
Site: Iowa	SSOW#:			

Analysis Requested

Preservation Codes:
D - HNO3
N - None
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	9066A_ORGFM_28D - Chloride, Fluoride & Sulfate	6020B, 7470A	2540C_Calcd, SM4500_H+	6020B - Boron and Calcium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	D	N	D		
MW156D-GW-0425	4/3/25	1040	G	Water	N	N	X	X	X	X	X	X		
MW227D-GW-0425	4/2/25	1620	G	Water			X	X	X	X	X	X		
MW-105-GW-0425	4/2/25	1425	G	Water			X	X	X	X	X	X		
MW-108-GW-0425	4/2/25	1450	G	Water			X	X	X	X	X	X		
MW-133-GW-0425	4/2/25	1720	G	Water			X	X	X	X	X	X		
~~MW-156-GW-0425~~	~~4/3/25~~		G	~~Water~~			X	X	X	X	X	X		
MW-157-GW-0425	4/2/25	1655	G	Water			X	X	X	X	X	X		
MW-158-GW-0425	4/2/25	1720	G	Water			X	X	X	X	X	X		
MW-159-GW-0425	4/2/25	1755	G	Water			X	X	X	X	X	X		
MW-190-GW-0425	4/2/25	1815	G	Water			X	X	X	X	X	X		
MW-191-GW-0425	4/2/25	1835	G	Water			X	X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time.	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Brooke Wasson	4/3/25	GHD		4/3/25 1324	
2					4.3.25 1600	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

TestAmerica Des Moines

eurofins

Client Information	Sampler	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-104768-25189.2
Client Contact: Kevin Armstrong	Phone	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin:	Page: Page 2 of 3
Company: GHD Services Inc.	PWSID:			Job #:
Address: 11228 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days):			
State, Zip: IA, 50322-7905	Compliance Project: Δ Yes Δ No			
Phone: 515-414-3935(Tel)	PO #: 340-016858			
Email: Kevin.Armstrong@ghd.com	WO #: 12592594			
Project Name: MEC Walter Scott - Monofill	Project #: 31017236			
Site: Iowa	SSOW#:			

Analysis Requested

Preservation Codes: D - HNO3; N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	9056A_ORGFM_28D - Chloride, Fluoride & Sulfate	6020B, 7470A	2540C_Calcd, SM4500_H+	6020B - Boron and Calcium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	D	N	D		
~~MW-227-GW-0425~~				~~Water~~										
MW-240R-GW-0425	4/3/25	0905	G	Water	N	N	X	X	X	X	X	X		
MW-244-GW-0425	4/2/25	1800	G	Water	N	N	X	X	X	X	X	X		
MW-245-GW-0425	4/2/25	1915	G	Water	N	Y	X	X	X	X	X	X		
MW-246-GW-0425	4/2/25	1845	G	Water	N	N	X	X	X	X	X	X		
MW-247-GW-0425	4/2/25	1915	G	Water	N	N	X	X	X	X	X	X		
MW-248-GW-0425	4/2/25	2010	G	Water	N	N	X	X	X	X	X	X		
MW-250-GW-0425	4/2/25	1530	G	Water	N	N	X	X	X	X	X	X		
DP03-GW-0425	4/2/25	—	G	Water	N	N	X	X	X	X	X	X		
DP04-GW-0425	4/3/25	—	G	Water	N	N	X	X	X	X	X	X		
MW-245-GW-0425-MS2	4/2/25	1915	G	Water	N	N	X	X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Brooke Wagson	4/3/25	GHD		4/3/25 1334	TA
2					4-3-25 1650	
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 10/10/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone. 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

TestAmerica Des Moines SC

eurofins

Client Information	Sampler: B Wasson P. Richards	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-104768-25189 3
Client Contact: Kevin Armstrong	Phone: 563 569-7524	E-Mail: Zach Bindert@et.eurofinsus.com	State of Origin:	Page: Page 3 of 3
Company: GHD Services Inc.	PWSID:	Analysis Requested		Job #:
Address: 11228 Aurora Avenue	Due Date Requested:			Preservation Codes: D - HNO3 N - None
City: Des Moines	TAT Requested (days):			
State, Zip: IA, 50322-7905	Compliance Project: Δ Yes Δ No			
Phone: 515-414-3935(Tel)	PO #: 340-016858			
Email: Kevin.Armstrong@ghd com	WO #: 12592594			Other:
Project Name: MEC Walter Scott - Monofill	Project #: 31017236			
Site: Iowa	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226 - Standard Target List	9320_Ra228 - Standard Target List	9056A_ORGFM_28D - Chloride, Fluoride & Sulfate	6020B, 7470A	2540C_Calcd, SM4500_H+	6020B - Boron and Calcium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	D	N	D		
MW2MS-GW-0425-MSD2	4/2/25	1915	C	Water	N	N	X	X	X	X	X	X		

Page 58 of 60

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Brooke Wasson	4/3/25	GHD		4/3/25 1324	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4-3-25 1600	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

5/2/2025

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-303421-1

Login Number: 303421
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Project/Site: MEC Walter Scott - Monofill

Job ID: 310-303421-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-303421-1	MW156D-GW-0425	92.7
310-303421-2	MW227D-GW-0425	84.3
LCS 160-711346/2-A	Lab Control Sample	89.4
MB 160-711346/1-A	Method Blank	86.1

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-303421-1	MW156D-GW-0425	92.7	79.6
310-303421-2	MW227D-GW-0425	84.3	79.6
LCS 160-711347/2-A	Lab Control Sample	89.4	80.7
MB 160-711347/1-A	Method Blank	86.1	79.3

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 6/26/2025 4:43:26 PM

JOB DESCRIPTION

MEC Walter Scott CCR (WSEC)
WSEC MAY 2025

JOB NUMBER

310-308638-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
6/26/2025 4:43:26 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Definitions 17
QC Sample Results 18
QC Association 20
Chronicle 21
Certification Summary 23
Method Summary 24
Chain of Custody 25
Receipt Checklists 27

Job ID: 310-308638-1 Eurofins Cedar Falls

Job Narrative
310-308638-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/12/2025 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.1°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW108-GW-0625 (310-308638-2). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-308638-1	MW105-GW-0625	Water	06/11/25 11:50	06/12/25 16:15
310-308638-2	MW108-GW-0625	Water	06/11/25 12:10	06/12/25 16:15
310-308638-3	MW133-GW-0625	Water	06/11/25 12:55	06/12/25 16:15
310-308638-4	MW159-GW-0625	Water	06/11/25 09:10	06/12/25 16:15
310-308638-5	MW240R-GW-0625	Water	06/11/25 13:50	06/12/25 16:15
310-308638-6	MW245-GW-0625	Water	06/11/25 09:50	06/12/25 16:15
310-308638-7	MW247-GW-0625	Water	06/11/25 10:25	06/12/25 16:15
310-308638-8	MW248-GW-0625	Water	06/11/25 10:45	06/12/25 16:15
310-308638-9	MW250-GW-0625	Water	06/11/25 13:20	06/12/25 16:15
310-308638-10	DP01-GW-0625	Water	06/11/25 00:00	06/12/25 16:15

Detection Summary

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW105-GW-0625 — Lab Sample ID: 310-308638-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW108-GW-0625 — Lab Sample ID: 310-308638-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW133-GW-0625 — Lab Sample ID: 310-308638-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW159-GW-0625 — Lab Sample ID: 310-308638-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW240R-GW-0625 — Lab Sample ID: 310-308638-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW245-GW-0625 — Lab Sample ID: 310-308638-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW247-GW-0625 — Lab Sample ID: 310-308638-7

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW248-GW-0625 — Lab Sample ID: 310-308638-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	108		5.00		mg/L	5		9056A	Total/NA
Calcium	137		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	602		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW250-GW-0625 — Lab Sample ID: 310-308638-9

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP01-GW-0625 — Lab Sample ID: 310-308638-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	107		5.00		mg/L	5		9056A	Total/NA
Calcium	130		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	596		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW105-GW-0625
Lab Sample ID: 310-308638-1
Date Collected: 06/11/25 11:50
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.1	HF	1.0		SU			06/12/25 18:54	1

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW108-GW-0625
Lab Sample ID: 310-308638-2
Date Collected: 06/11/25 12:10
Matrix: Water
Date Received: 06/12/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<1.00		1.00		mg/L			06/18/25 14:33	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**6.9**	**HF**	1.0		SU			06/12/25 18:52	1

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW133-GW-0625
Lab Sample ID: 310-308638-3
Date Collected: 06/11/25 12:55
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			06/12/25 18:55	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW159-GW-0625
Lab Sample ID: 310-308638-4
Date Collected: 06/11/25 09:10
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	6.9	HF	1.0		SU			06/12/25 18:59	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW240R-GW-0625
Lab Sample ID: 310-308638-5
Date Collected: 06/11/25 13:50
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.1	HF	1.0		SU			06/12/25 18:57	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW245-GW-0625
Lab Sample ID: 310-308638-6
Date Collected: 06/11/25 09:50
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	6.9	HF	1.0		SU			06/12/25 18:56	1

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW247-GW-0625
Lab Sample ID: 310-308638-7
Date Collected: 06/11/25 10:25
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			06/12/25 18:58	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW248-GW-0625
Lab Sample ID: 310-308638-8
Date Collected: 06/11/25 10:45
Matrix: Water
Date Received: 06/12/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.6		5.00		mg/L			06/18/25 14:45	5
Sulfate	108		5.00		mg/L			06/18/25 14:45	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	137		0.500		mg/L		06/17/25 09:10	06/26/25 15:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	602		50.0		mg/L			06/13/25 19:40	1

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW250-GW-0625
Lab Sample ID: 310-308638-9
Date Collected: 06/11/25 13:20
Matrix: Water
Date Received: 06/12/25 16:15

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	6.9	HF	1.0		SU			06/12/25 19:00	1

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: DP01-GW-0625
Lab Sample ID: 310-308638-10
Date Collected: 06/11/25 00:00
Matrix: Water
Date Received: 06/12/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.5		5.00		mg/L			06/18/25 14:57	5
Sulfate	107		5.00		mg/L			06/18/25 14:57	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130		0.500		mg/L		06/17/25 09:10	06/26/25 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	596		50.0		mg/L			06/13/25 19:40	1

Definitions/Glossary

Client: GHD Services Inc. Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-458080/3
Matrix: Water
Analysis Batch: 458080

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			06/18/25 13:33	1
Fluoride	<0.200		0.200		mg/L			06/18/25 13:33	1
Sulfate	<1.00		1.00		mg/L			06/18/25 13:33	1

Lab Sample ID: LCS 310-458080/4
Matrix: Water
Analysis Batch: 458080

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.885		mg/L		99	90 - 110
Fluoride	2.00	2.063		mg/L		103	90 - 110
Sulfate	10.0	10.05		mg/L		100	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-457632/1-A
Matrix: Water
Analysis Batch: 458911

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 457632

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.500		0.500		mg/L		06/17/25 09:10	06/26/25 15:04	1

Lab Sample ID: LCS 310-457632/2-A
Matrix: Water
Analysis Batch: 458911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 457632

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	2.00	1.988		mg/L		99	80 - 120

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

Lab Sample ID: MB 310-457610/1
Matrix: Water
Analysis Batch: 457610

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			06/13/25 19:40	1

Lab Sample ID: LCS 310-457610/2
Matrix: Water
Analysis Batch: 457610

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	964.0		mg/L		96	89 - 110

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

Lab Sample ID: 310-308638-8 DU
Client Sample ID: MW248-GW-0625
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 457610

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	602			584.0		mg/L				3	13

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-457399/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 457399

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		100	98 - 102		

Lab Sample ID: 310-308638-2 DU
Client Sample ID: MW108-GW-0625
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 457399

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.9	HF		6.9		SU				0	20

QC Association Summary

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

HPLC/IC

Analysis Batch: 458080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-308638-2	MW108-GW-0625	Total/NA	Water	9056A	
310-308638-8	MW248-GW-0625	Total/NA	Water	9056A	
310-308638-10	DP01-GW-0625	Total/NA	Water	9056A	
MB 310-458080/3	Method Blank	Total/NA	Water	9056A	
LCS 310-458080/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 457632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-308638-8	MW248-GW-0625	Total/NA	Water	3005A	
310-308638-10	DP01-GW-0625	Total/NA	Water	3005A	
MB 310-457632/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-457632/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 458911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-308638-8	MW248-GW-0625	Total/NA	Water	6020B	457632
310-308638-10	DP01-GW-0625	Total/NA	Water	6020B	457632
MB 310-457632/1-A	Method Blank	Total/NA	Water	6020B	457632
LCS 310-457632/2-A	Lab Control Sample	Total/NA	Water	6020B	457632

General Chemistry

Analysis Batch: 457399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-308638-1	MW105-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-2	MW108-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-3	MW133-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-4	MW159-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-5	MW240R-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-6	MW245-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-7	MW247-GW-0625	Total/NA	Water	SM 4500 H+ B	
310-308638-9	MW250-GW-0625	Total/NA	Water	SM 4500 H+ B	
LCS 310-457399/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-308638-2 DU	MW108-GW-0625	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 457610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-308638-8	MW248-GW-0625	Total/NA	Water	SM 2540C	
310-308638-10	DP01-GW-0625	Total/NA	Water	SM 2540C	
MB 310-457610/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-457610/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-308638-8 DU	MW248-GW-0625	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW105-GW-0625
Lab Sample ID: 310-308638-1
Date Collected: 06/11/25 11:50
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:54

Client Sample ID: MW108-GW-0625
Lab Sample ID: 310-308638-2
Date Collected: 06/11/25 12:10
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	458080	QTZ5	EET CF	06/18/25 14:33
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:52

Client Sample ID: MW133-GW-0625
Lab Sample ID: 310-308638-3
Date Collected: 06/11/25 12:55
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:55

Client Sample ID: MW159-GW-0625
Lab Sample ID: 310-308638-4
Date Collected: 06/11/25 09:10
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:59

Client Sample ID: MW240R-GW-0625
Lab Sample ID: 310-308638-5
Date Collected: 06/11/25 13:50
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:57

Client Sample ID: MW245-GW-0625
Lab Sample ID: 310-308638-6
Date Collected: 06/11/25 09:50
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:56

Client Sample ID: MW247-GW-0625
Lab Sample ID: 310-308638-7
Date Collected: 06/11/25 10:25
Matrix: Water
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 18:58

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Client Sample ID: MW248-GW-0625 Lab Sample ID: 310-308638-8

Date Collected: 06/11/25 10:45 **Matrix: Water**
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	458080	QTZ5	EET CF	06/18/25 14:45
Total/NA	Prep	3005A			457632	WK2X	EET CF	06/17/25 09:10
Total/NA	Analysis	6020B		1	458911	NFT2	EET CF	06/26/25 15:19
Total/NA	Analysis	SM 2540C		1	457610	MDU9	EET CF	06/13/25 19:40

Client Sample ID: MW250-GW-0625 Lab Sample ID: 310-308638-9

Date Collected: 06/11/25 13:20 **Matrix: Water**
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	457399	W9YR	EET CF	06/12/25 19:00

Client Sample ID: DP01-GW-0625 Lab Sample ID: 310-308638-10

Date Collected: 06/11/25 00:00 **Matrix: Water**
Date Received: 06/12/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	458080	QTZ5	EET CF	06/18/25 14:57
Total/NA	Prep	3005A			457632	WK2X	EET CF	06/17/25 09:10
Total/NA	Analysis	6020B		1	458911	NFT2	EET CF	06/26/25 15:22
Total/NA	Analysis	SM 2540C		1	457610	MDU9	EET CF	06/13/25 19:40

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Method Summary

Client: GHD Services Inc.
Job ID: 310-308638-1
Project/Site: MEC Walter Scott CCR (WSEC)

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

eurofins | Environment Testing America

310-308638 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: HD

City/State: CITY Des Moines STATE IA Project:

Receipt Information

Date/Time Received: DATE 8.12.25 TIME 1615 Received By: PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☑ No *If yes:* Cooler # _____ of _____

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes.* Which VOA samples are in cooler? ↓

Temperature Record

Coolant. ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID: AA Correction Factor (°C): C

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.1 Corrected Temp (°C): -0.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☑ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

EUROFINS
DES MOINES SERVICE CENTER
214

Client Information	Sampler: Brooke Wasson	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@ET.EurofinsUS.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested:	Analysis Requested		
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd.com	WO #:			
Project Name: MidAmerican WSEC CCR Monofill	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Preservation Codes

A HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I Ice	U - Acetone
J - DI Water	V - MCAA
K EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Calcium	2540C TDS	9056A Chloride	9056A Sulfate	pH	Fluoride	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	N	N	N	N	N		
MW105-GW-0625	6/11/25	1150	G	W	N	N					X			
MW108-GW-0625		1210	G	W	N	N					X	X		
MW133-GW-0625		1255	G	W	N	N					X			
MW159-GW-0625		0910	G	W	N	N					X			
MW240R-GW-0625		1350	G	W	N	N					X			
MW245-GW-0625		0950	G	W	N	N					X			
MW247-GW-0625		1025	G	W	N	N					X			
MW248-GW-0625		1045	G	W	N	N	X	X	X	X				
MW250-GW-0625		1320	G	W	N	N					X			
DP01-GW-0625	↓	—	G	W	N	N	X	X	X	X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements: Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Brooke Wasson	6/12/25	GHD	[signature]	6/12/25 10:30	
				[signature]	6-12-25 1615	

Custody Seals Intact: △ Yes △ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks:

Page 26 of 27

6/26/2025

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-308638-1

Login Number: 308638

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 8/22/2025 1:39:48 PM

JOB DESCRIPTION

MidAmerican WSEC CCR
MEC WSEC Deep Well Baseline

JOB NUMBER

310-311926-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
8/22/2025 1:39:48 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 21
QC Sample Results 22
QC Association 28
Chronicle 31
Certification Summary 34
Method Summary 35
Chain of Custody 36
Receipt Checklists 40
Tracer Carrier Summary 41

Job ID: 310-311926-1 Eurofins Cedar Falls

Job Narrative
310-311926-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/25/2025 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8°C, 1.9°C and 3.0°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW05D-GW-0725 (310-311926-1), MW22D-GW-0725 (310-311926-2), MW156D-GW-0725 (310-311926-3), MW227D-GW-0725 (310-311926-4) and MW307D-GW-0725 (310-311926-5). Elevated reporting limits (RLs) are provided.

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

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

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

Job Narrative
310-311926-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 7/25/2025 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8°C, 1.9°C and 3.0°C.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-311926-1	MW05D-GW-0725	Water	07/24/25 12:30	07/25/25 15:30	Iowa
310-311926-2	MW22D-GW-0725	Water	07/24/25 15:00	07/25/25 15:30	Iowa
310-311926-3	MW156D-GW-0725	Water	07/24/25 16:30	07/25/25 15:30	Iowa
310-311926-4	MW227D-GW-0725	Water	07/24/25 18:00	07/25/25 15:30	Iowa
310-311926-5	MW307D-GW-0725	Water	07/24/25 10:20	07/25/25 15:30	Iowa
310-311926-6	DP01-GW-0725	Water	07/24/25 00:00	07/25/25 15:30	Iowa

Detection Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: MW05D-GW-0725 — Lab Sample ID: 310-311926-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	196		5.00		mg/L	5		9056A	Total/NA
Sulfate	237		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0103		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0684		0.00200		mg/L	1		6020B	Total/NA
Boron	2.05		0.100		mg/L	1		6020B	Total/NA
Calcium	198		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000871		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0170		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0210		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	980		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW22D-GW-0725 — Lab Sample ID: 310-311926-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.8		5.00		mg/L	5		9056A	Total/NA
Sulfate	33.1		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.125		0.00200		mg/L	1		6020B	Total/NA
Barium	0.247		0.00200		mg/L	1		6020B	Total/NA
Boron	0.226		0.100		mg/L	1		6020B	Total/NA
Calcium	70.3		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000861		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0283		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00991		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	398		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW156D-GW-0725 — Lab Sample ID: 310-311926-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	345		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0108		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0634		0.00200		mg/L	1		6020B	Total/NA
Boron	0.148		0.100		mg/L	1		6020B	Total/NA
Calcium	227		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00260		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0779		0.0100		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1060		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW227D-GW-0725 — Lab Sample ID: 310-311926-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.12		5.00		mg/L	5		9056A	Total/NA
Sulfate	155		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0200		0.00200		mg/L	1		6020B	Total/NA
Barium	0.323		0.00200		mg/L	1		6020B	Total/NA
Boron	0.116		0.100		mg/L	1		6020B	Total/NA
Calcium	127		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0543		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00253		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: MW227D-GW-0725 (Continued) — Lab Sample ID: 310-311926-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	638		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW307D-GW-0725 — Lab Sample ID: 310-311926-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	36.6	F1	5.00		mg/L	5		9056A	Total/NA
Barium	0.226		0.00200		mg/L	1		6020B	Total/NA
Boron	0.193		0.100		mg/L	1		6020B	Total/NA
Calcium	119		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0675		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00295		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	514		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP01-GW-0725 — Lab Sample ID: 310-311926-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	31.3		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.122		0.00200		mg/L	1		6020B	Total/NA
Barium	0.246		0.00200		mg/L	1		6020B	Total/NA
Boron	0.217		0.100		mg/L	1		6020B	Total/NA
Calcium	68.2		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000806		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0278		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0100		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	378		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW05D-GW-0725

Date Collected: 07/24/25 12:30
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**196**		5.00		mg/L			07/30/25 11:34	5
Fluoride	<1.00		1.00		mg/L			07/30/25 11:34	5
Sulfate	**237**		5.00		mg/L			07/30/25 11:34	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:04	1
Arsenic	**0.0103**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:04	1
Barium	**0.0684**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:04	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:04	1
Boron	**2.05**		0.100		mg/L		07/30/25 09:00	07/31/25 13:04	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:04	1
Calcium	**198**		0.500		mg/L		07/30/25 09:00	07/31/25 13:04	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:04	1
Cobalt	**0.000871**		0.000500		mg/L		07/30/25 09:00	07/31/25 13:04	1
Lithium	**0.0170**		0.0100		mg/L		07/30/25 09:00	07/31/25 13:04	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:04	1
Molybdenum	**0.0210**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:04	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:04	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**980**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.4**	**HF**	1.0		SU			07/25/25 18:16	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.434**		0.257	0.260	1.00	0.329	pCi/L	07/30/25 08:03	08/21/25 17:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*83.9*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.650	U	0.340	0.340	1.00	0.650	pCi/L	07/30/25 09:16	08/21/25 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*83.9*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*
Y Carrier	*78.1*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: MW05D-GW-0725
Date Collected: 07/24/25 12:30
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.650	U	0.426	0.428	5.00	0.650	pCi/L		08/22/25 13:14	1

Client Sample ID: MW22D-GW-0725

Date Collected: 07/24/25 15:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.8**		5.00		mg/L			07/30/25 11:46	5
Fluoride	<1.00		1.00		mg/L			07/30/25 11:46	5
Sulfate	**33.1**		5.00		mg/L			07/30/25 11:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:07	1
Arsenic	**0.125**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:07	1
Barium	**0.247**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:07	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:07	1
Boron	**0.226**		0.100		mg/L		07/30/25 09:00	07/31/25 13:07	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:07	1
Calcium	**70.3**		0.500		mg/L		07/30/25 09:00	07/31/25 13:07	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:07	1
Cobalt	**0.000861**		0.000500		mg/L		07/30/25 09:00	07/31/25 13:07	1
Lithium	**0.0283**		0.0100		mg/L		07/30/25 09:00	07/31/25 13:07	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:07	1
Molybdenum	**0.00991**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:07	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:07	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**398**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.1**	**HF**	1.0		SU			07/25/25 18:11	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.327	U	0.209	0.210	1.00	0.327	pCi/L	07/30/25 08:03	08/21/25 17:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.9*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.602	U	0.364	0.365	1.00	0.602	pCi/L	07/30/25 09:16	08/21/25 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.9*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*
Y Carrier	*76.6*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: MW22D-GW-0725
Date Collected: 07/24/25 15:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.602	U	0.420	0.421	5.00	0.602	pCi/L		08/22/25 13:14	1

Client Sample ID: MW156D-GW-0725

Date Collected: 07/24/25 16:30
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.9**		5.00		mg/L			07/30/25 11:58	5
Fluoride	<1.00		1.00		mg/L			07/30/25 11:58	5
Sulfate	**345**		5.00		mg/L			07/30/25 11:58	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:10	1
Arsenic	**0.0108**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:10	1
Barium	**0.0634**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:10	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:10	1
Boron	**0.148**		0.100		mg/L		07/30/25 09:00	07/31/25 13:10	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:10	1
Calcium	**227**		0.500		mg/L		07/30/25 09:00	07/31/25 13:10	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:10	1
Cobalt	**0.00260**		0.000500		mg/L		07/30/25 09:00	07/31/25 13:10	1
Lithium	**0.0779**		0.0100		mg/L		07/30/25 09:00	07/31/25 13:10	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:10	1
Molybdenum	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:10	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:10	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1060**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			07/25/25 18:12	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.380	U	0.239	0.239	1.00	0.380	pCi/L	07/30/25 08:03	08/21/25 17:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*91.8*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.652**		0.381	0.386	1.00	0.556	pCi/L	07/30/25 09:16	08/21/25 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*91.8*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*
Y Carrier	*83.4*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:52*	*1*

Client: GHD Services Inc.
Job ID: 310-311926-1
Project/Site: MidAmerican WSEC CCR

Client Sample ID: MW156D-GW-0725
Lab Sample ID: 310-311926-3
Date Collected: 07/24/25 16:30
Matrix: Water
Date Received: 07/25/25 15:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.884		0.450	0.454	5.00	0.556	pCi/L		08/22/25 13:14	1

Client Sample ID: MW227D-GW-0725

Date Collected: 07/24/25 18:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.12**		5.00		mg/L			07/30/25 12:34	5
Fluoride	<1.00		1.00		mg/L			07/30/25 12:34	5
Sulfate	**155**		5.00		mg/L			07/30/25 12:34	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:18	1
Arsenic	**0.0200**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:18	1
Barium	**0.323**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:18	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:18	1
Boron	**0.116**		0.100		mg/L		07/30/25 09:00	07/31/25 13:18	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:18	1
Calcium	**127**		0.500		mg/L		07/30/25 09:00	07/31/25 13:18	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:18	1
Cobalt	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:18	1
Lithium	**0.0543**		0.0100		mg/L		07/30/25 09:00	07/31/25 13:18	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:18	1
Molybdenum	**0.00253**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:18	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:18	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**638**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.1**	**HF**	1.0		SU			07/25/25 18:19	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.389	U	0.252	0.253	1.00	0.389	pCi/L	07/30/25 08:03	08/21/25 17:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.6*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.634	U	0.420	0.424	1.00	0.634	pCi/L	07/30/25 09:16	08/21/25 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88.6*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*
Y Carrier	*79.6*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: MW227D-GW-0725

Date Collected: 07/24/25 18:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-4

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.899		0.490	0.494	5.00	0.634	pCi/L		08/22/25 13:14	1

Client Sample ID: MW307D-GW-0725

Date Collected: 07/24/25 10:20
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	F1	5.00		mg/L			07/30/25 12:46	5
Fluoride	<1.00	F1	1.00		mg/L			07/30/25 12:46	5
Sulfate	**36.6**	**F1**	5.00		mg/L			07/30/25 12:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:22	1
Arsenic	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:22	1
Barium	**0.226**		0.00200		mg/L		07/30/25 09:00	07/31/25 12:22	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 12:22	1
Boron	**0.193**		0.100		mg/L		07/30/25 09:00	07/31/25 12:22	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 12:22	1
Calcium	**119**		0.500		mg/L		07/30/25 09:00	07/31/25 12:22	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 12:22	1
Cobalt	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 12:22	1
Lithium	**0.0675**		0.0100		mg/L		07/30/25 09:00	07/31/25 12:22	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 12:22	1
Molybdenum	**0.00295**		0.00200		mg/L		07/30/25 09:00	07/31/25 12:22	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 12:22	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 12:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**514**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			07/25/25 18:14	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.396	U	0.238	0.238	1.00	0.396	pCi/L	07/30/25 08:03	08/21/25 17:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.6*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.746	U	0.463	0.465	1.00	0.746	pCi/L	07/30/25 09:16	08/21/25 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.6*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*
Y Carrier	*81.1*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*

Client: GHD Services Inc.
Job ID: 310-311926-1
Project/Site: MidAmerican WSEC CCR

Client Sample ID: MW307D-GW-0725
Lab Sample ID: 310-311926-5
Date Collected: 07/24/25 10:20
Matrix: Water
Date Received: 07/25/25 15:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.746	U	0.521	0.522	5.00	0.746	pCi/L		08/22/25 13:14	1

Client Sample ID: DP01-GW-0725

Date Collected: 07/24/25 00:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.6**		5.00		mg/L			07/30/25 13:22	5
Fluoride	<1.00		1.00		mg/L			07/30/25 13:22	5
Sulfate	**31.3**		5.00		mg/L			07/30/25 13:22	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 13:21	1
Arsenic	**0.122**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:21	1
Barium	**0.246**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:21	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:21	1
Boron	**0.217**		0.100		mg/L		07/30/25 09:00	07/31/25 13:21	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:21	1
Calcium	**68.2**		0.500		mg/L		07/30/25 09:00	07/31/25 13:21	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:21	1
Cobalt	**0.000806**		0.000500		mg/L		07/30/25 09:00	07/31/25 13:21	1
Lithium	**0.0278**		0.0100		mg/L		07/30/25 09:00	07/31/25 13:21	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 13:21	1
Molybdenum	**0.0100**		0.00200		mg/L		07/30/25 09:00	07/31/25 13:21	1
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 13:21	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 13:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**378**		50.0		mg/L			07/29/25 20:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.1**	**HF**	1.0		SU			07/25/25 18:13	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.329	U	0.206	0.207	1.00	0.329	pCi/L	07/30/25 08:03	08/21/25 17:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*82.9*		*30 - 110*	*07/30/25 08:03*	*08/21/25 17:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.774	U	0.432	0.432	1.00	0.774	pCi/L	07/30/25 09:16	08/21/25 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*82.9*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*
Y Carrier	*80.0*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:53*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: DP01-GW-0725

Date Collected: 07/24/25 00:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-6

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.774	U	0.479	0.479	5.00	0.774	pCi/L		08/22/25 13:14	1

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 310-311926-1
Project/Site: MidAmerican WSEC CCR

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-462295/3
Matrix: Water
Analysis Batch: 462295

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			07/30/25 10:09	1
Fluoride	<0.200		0.200		mg/L			07/30/25 10:09	1
Sulfate	<1.00		1.00		mg/L			07/30/25 10:09	1

Lab Sample ID: LCS 310-462295/4
Matrix: Water
Analysis Batch: 462295

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.639		mg/L		96	90 - 110
Fluoride	2.00	1.923		mg/L		96	90 - 110
Sulfate	10.0	9.984		mg/L		100	90 - 110

Lab Sample ID: 310-311926-5 MS
Matrix: Water
Analysis Batch: 462295

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00	F1	25.0	26.77		mg/L		91	80 - 120
Fluoride	<1.00	F1	5.00	5.301		mg/L		106	80 - 120
Sulfate	36.6	F1	25.0	60.50		mg/L		95	80 - 120

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 462295

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<5.00	F1	25.0	26.94		mg/L		92	80 - 120	1	15
Fluoride	<1.00	F1	5.00	5.307		mg/L		106	80 - 120	0	15
Sulfate	36.6	F1	25.0	61.17		mg/L		98	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-462035/1-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Arsenic	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Barium	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Beryllium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 12:16	1
Boron	<0.100		0.100		mg/L		07/30/25 09:00	07/31/25 12:16	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Calcium	<0.500		0.500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Chromium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Cobalt	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Lithium	<0.0100		0.0100		mg/L		07/30/25 09:00	07/31/25 12:16	1
Lead	<0.000500		0.000500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Molybdenum	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:16	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-462035/1-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00500		0.00500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Thallium	<0.00100		0.00100		mg/L		07/30/25 09:00	07/31/25 12:16	1

Lab Sample ID: LCS 310-462035/2-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1886		mg/L		94	80 - 120
Arsenic	0.200	0.1816		mg/L		91	80 - 120
Barium	0.100	0.09051		mg/L		91	80 - 120
Beryllium	0.100	0.09426		mg/L		94	80 - 120
Boron	0.200	0.1894		mg/L		95	80 - 120
Cadmium	0.100	0.09278		mg/L		93	80 - 120
Calcium	2.00	1.665		mg/L		83	80 - 120
Chromium	0.100	0.09766		mg/L		98	80 - 120
Cobalt	0.100	0.09346		mg/L		93	80 - 120
Lithium	0.200	0.1893		mg/L		95	80 - 120
Lead	0.200	0.1890		mg/L		95	80 - 120
Molybdenum	0.200	0.1858		mg/L		93	80 - 120
Selenium	0.400	0.3660		mg/L		92	80 - 120
Thallium	0.100	0.08950		mg/L		90	80 - 120

Lab Sample ID: 310-311926-5 MS
Matrix: Water
Analysis Batch: 462287

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 462035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2021		mg/L		101	75 - 125
Arsenic	<0.00200		0.200	0.1969		mg/L		98	75 - 125
Barium	0.226		0.100	0.3190		mg/L		93	75 - 125
Beryllium	<0.00100		0.100	0.09822		mg/L		98	75 - 125
Boron	0.193		0.200	0.3821		mg/L		95	75 - 125
Cadmium	<0.000200		0.100	0.09716		mg/L		97	75 - 125
Calcium	119		2.00	120.5	4	mg/L		57	75 - 125
Chromium	<0.00500		0.100	0.09859		mg/L		99	75 - 125
Cobalt	<0.000500		0.100	0.09155		mg/L		91	75 - 125
Lithium	0.0675		0.200	0.2604		mg/L		96	75 - 125
Lead	<0.000500		0.200	0.1885		mg/L		94	75 - 125
Molybdenum	0.00295		0.200	0.1995		mg/L		98	75 - 125
Selenium	<0.00500		0.400	0.3802		mg/L		95	75 - 125
Thallium	<0.00100		0.100	0.08963		mg/L		90	75 - 125

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 462287

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 462035

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2041		mg/L		102	75 - 125	1	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 462287

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 462035

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.00200		0.200	0.1987		mg/L		99	75 - 125	1	20
Barium	0.226		0.100	0.3254		mg/L		99	75 - 125	2	20
Beryllium	<0.00100		0.100	0.09868		mg/L		99	75 - 125	0	20
Boron	0.193		0.200	0.3915		mg/L		99	75 - 125	2	20
Cadmium	<0.000200		0.100	0.09832		mg/L		98	75 - 125	1	20
Calcium	119		2.00	122.6	4	mg/L		164	75 - 125	2	20
Chromium	<0.00500		0.100	0.09889		mg/L		99	75 - 125	0	20
Cobalt	<0.000500		0.100	0.09115		mg/L		91	75 - 125	0	20
Lithium	0.0675		0.200	0.2630		mg/L		98	75 - 125	1	20
Lead	<0.000500		0.200	0.1894		mg/L		95	75 - 125	0	20
Molybdenum	0.00295		0.200	0.2026		mg/L		100	75 - 125	2	20
Selenium	<0.00500		0.400	0.3853		mg/L		96	75 - 125	1	20
Thallium	<0.00100		0.100	0.08975		mg/L		90	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-462501/1-A
Matrix: Water
Analysis Batch: 462673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		08/04/25 12:48	08/05/25 11:13	1

Lab Sample ID: LCS 310-462501/2-A
Matrix: Water
Analysis Batch: 462673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462501

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001796		mg/L		108	80 - 120		

Lab Sample ID: 310-311926-5 MS
Matrix: Water
Analysis Batch: 462673

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 462501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	<0.000200		0.00167	0.001791		mg/L		107	80 - 120		

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 462673

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 462501

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001791		mg/L		107	80 - 120	0	20

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

Lab Sample ID: MB 310-462038/1
Matrix: Water
Analysis Batch: 462038

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			07/29/25 20:44	1

Lab Sample ID: LCS 310-462038/2
Matrix: Water
Analysis Batch: 462038

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1046		mg/L		105	89 - 110

Lab Sample ID: 310-311926-6 DU
Matrix: Water
Analysis Batch: 462038

Client Sample ID: DP01-GW-0725
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	378		380.0		mg/L		0.5	13

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-461714/20
Matrix: Water
Analysis Batch: 461714

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	98 - 102

Lab Sample ID: 310-311926-1 DU
Matrix: Water
Analysis Batch: 461714

Client Sample ID: MW05D-GW-0725
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.4	HF	7.4		SU		0	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-729738/1-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729738

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.333	U	0.214	0.215	1.00	0.333	pCi/L	07/30/25 08:03	08/21/25 15:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*07/30/25 08:03*	*08/21/25 15:39*	*1*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-729738/2-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729738

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	8.399		1.16	1.00	0.352	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*92.8*		*30 - 110*

Lab Sample ID: 310-311926-5 MS
Matrix: Water
Analysis Batch: 732941

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 729738

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	<0.396	U	9.52	9.143		1.26	1.00	0.388	pCi/L	94	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*83.9*		*30 - 110*

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 732941

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 729738

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	<0.396	U	9.55	8.418		1.19	1.00	0.359	pCi/L	86	60 - 140	0.30	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*81.4*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-729754/1-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729754

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.588	U	0.321	0.321	1.00	0.588	pCi/L	07/30/25 09:16	08/21/25 11:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:51*	*1*
Y Carrier	*81.5*		*30 - 110*	*07/30/25 09:16*	*08/21/25 11:51*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-729754/2-A
Matrix: Water
Analysis Batch: 732942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729754

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.14	10.32		1.37	1.00	0.538	pCi/L	113	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*92.8*		*30 - 110*
Y Carrier	*80.4*		*30 - 110*

Lab Sample ID: 310-311926-5 MS
Matrix: Water
Analysis Batch: 732928

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 729754

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	<0.746	U	9.09	10.69		1.50	1.00	0.669	pCi/L	112	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*83.9*		*30 - 110*
Y Carrier	*79.3*		*30 - 110*

Lab Sample ID: 310-311926-5 MSD
Matrix: Water
Analysis Batch: 732928

Client Sample ID: MW307D-GW-0725
Prep Type: Total/NA
Prep Batch: 729754

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	<0.746	U	9.12	10.39		1.48	1.00	0.752	pCi/L	109	60 - 140	0.10	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*81.4*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

HPLC/IC

Analysis Batch: 462295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	9056A	
310-311926-2	MW22D-GW-0725	Total/NA	Water	9056A	
310-311926-3	MW156D-GW-0725	Total/NA	Water	9056A	
310-311926-4	MW227D-GW-0725	Total/NA	Water	9056A	
310-311926-5	MW307D-GW-0725	Total/NA	Water	9056A	
310-311926-6	DP01-GW-0725	Total/NA	Water	9056A	
MB 310-462295/3	Method Blank	Total/NA	Water	9056A	
LCS 310-462295/4	Lab Control Sample	Total/NA	Water	9056A	
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	9056A	
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	9056A	

Metals

Prep Batch: 462035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	3005A	
310-311926-2	MW22D-GW-0725	Total/NA	Water	3005A	
310-311926-3	MW156D-GW-0725	Total/NA	Water	3005A	
310-311926-4	MW227D-GW-0725	Total/NA	Water	3005A	
310-311926-5	MW307D-GW-0725	Total/NA	Water	3005A	
310-311926-6	DP01-GW-0725	Total/NA	Water	3005A	
MB 310-462035/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-462035/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	3005A	
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	3005A	

Analysis Batch: 462287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	6020B	462035
310-311926-2	MW22D-GW-0725	Total/NA	Water	6020B	462035
310-311926-3	MW156D-GW-0725	Total/NA	Water	6020B	462035
310-311926-4	MW227D-GW-0725	Total/NA	Water	6020B	462035
310-311926-5	MW307D-GW-0725	Total/NA	Water	6020B	462035
310-311926-6	DP01-GW-0725	Total/NA	Water	6020B	462035
MB 310-462035/1-A	Method Blank	Total/NA	Water	6020B	462035
LCS 310-462035/2-A	Lab Control Sample	Total/NA	Water	6020B	462035
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	6020B	462035
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	6020B	462035

Prep Batch: 462501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	7470A	
310-311926-2	MW22D-GW-0725	Total/NA	Water	7470A	
310-311926-3	MW156D-GW-0725	Total/NA	Water	7470A	
310-311926-4	MW227D-GW-0725	Total/NA	Water	7470A	
310-311926-5	MW307D-GW-0725	Total/NA	Water	7470A	
310-311926-6	DP01-GW-0725	Total/NA	Water	7470A	
MB 310-462501/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-462501/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	7470A	
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	7470A	

Metals

Analysis Batch: 462673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	7470A	462501
310-311926-2	MW22D-GW-0725	Total/NA	Water	7470A	462501
310-311926-3	MW156D-GW-0725	Total/NA	Water	7470A	462501
310-311926-4	MW227D-GW-0725	Total/NA	Water	7470A	462501
310-311926-5	MW307D-GW-0725	Total/NA	Water	7470A	462501
310-311926-6	DP01-GW-0725	Total/NA	Water	7470A	462501
MB 310-462501/1-A	Method Blank	Total/NA	Water	7470A	462501
LCS 310-462501/2-A	Lab Control Sample	Total/NA	Water	7470A	462501
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	7470A	462501
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	7470A	462501

General Chemistry

Analysis Batch: 461714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	SM 4500 H+ B	
310-311926-2	MW22D-GW-0725	Total/NA	Water	SM 4500 H+ B	
310-311926-3	MW156D-GW-0725	Total/NA	Water	SM 4500 H+ B	
310-311926-4	MW227D-GW-0725	Total/NA	Water	SM 4500 H+ B	
310-311926-5	MW307D-GW-0725	Total/NA	Water	SM 4500 H+ B	
310-311926-6	DP01-GW-0725	Total/NA	Water	SM 4500 H+ B	
LCS 310-461714/20	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-311926-1 DU	MW05D-GW-0725	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 462038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	SM 2540C	
310-311926-2	MW22D-GW-0725	Total/NA	Water	SM 2540C	
310-311926-3	MW156D-GW-0725	Total/NA	Water	SM 2540C	
310-311926-4	MW227D-GW-0725	Total/NA	Water	SM 2540C	
310-311926-5	MW307D-GW-0725	Total/NA	Water	SM 2540C	
310-311926-6	DP01-GW-0725	Total/NA	Water	SM 2540C	
MB 310-462038/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-462038/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-311926-6 DU	DP01-GW-0725	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 729738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-2	MW22D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-3	MW156D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-4	MW227D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-5	MW307D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-6	DP01-GW-0725	Total/NA	Water	PrecSep-21	
MB 160-729738/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-729738/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	PrecSep-21	
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	PrecSep-21	

Rad

Prep Batch: 729754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311926-1	MW05D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-2	MW22D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-3	MW156D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-4	MW227D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-5	MW307D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-6	DP01-GW-0725	Total/NA	Water	PrecSep_0	
MB 160-729754/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-729754/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-311926-5 MS	MW307D-GW-0725	Total/NA	Water	PrecSep_0	
310-311926-5 MSD	MW307D-GW-0725	Total/NA	Water	PrecSep_0	

Client Sample ID: MW05D-GW-0725

Lab Sample ID: 310-311926-1

Date Collected: 07/24/25 12:30

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 11:34
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:04
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:18
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:16
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:42
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732942	CMM	EET SL	08/21/25 11:52
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Client Sample ID: MW22D-GW-0725

Lab Sample ID: 310-311926-2

Date Collected: 07/24/25 15:00

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 11:46
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:07
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:20
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:11
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:43
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732942	CMM	EET SL	08/21/25 11:52
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Client Sample ID: MW156D-GW-0725

Lab Sample ID: 310-311926-3

Date Collected: 07/24/25 16:30

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 11:58
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:10
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:22
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:12

Lab Chronicle

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: MW156D-GW-0725

Lab Sample ID: 310-311926-3

Date Collected: 07/24/25 16:30

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:43
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732942	CMM	EET SL	08/21/25 11:52
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Client Sample ID: MW227D-GW-0725

Lab Sample ID: 310-311926-4

Date Collected: 07/24/25 18:00

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 12:34
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:18
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:24
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:19
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:43
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732942	CMM	EET SL	08/21/25 11:53
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Client Sample ID: MW307D-GW-0725

Lab Sample ID: 310-311926-5

Date Collected: 07/24/25 10:20

Matrix: Water

Date Received: 07/25/25 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 12:46
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 12:22
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:26
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:14
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:43
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732928	CMM	EET SL	08/21/25 11:53
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Lab Chronicle

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Client Sample ID: DP01-GW-0725

Date Collected: 07/24/25 00:00
Date Received: 07/25/25 15:30

Lab Sample ID: 310-311926-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 13:22
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:21
Total/NA	Prep	7470A			462501	F5MW	EET CF	08/04/25 12:48
Total/NA	Analysis	7470A		1	462673	QTZ5	EET CF	08/05/25 11:37
Total/NA	Analysis	SM 2540C		1	462038	MDU9	EET CF	07/29/25 20:44
Total/NA	Analysis	SM 4500 H+ B		1	461714	W9YR	EET CF	07/25/25 18:13
Total/NA	Prep	PrecSep-21			729738	JTR	EET SL	07/30/25 08:03
Total/NA	Analysis	9315		1	732941	CMM	EET SL	08/21/25 17:43
Total/NA	Prep	PrecSep_0			729754	JTR	EET SL	07/30/25 09:16
Total/NA	Analysis	9320		1	732928	CMM	EET SL	08/21/25 11:53
Total/NA	Analysis	Ra226_Ra228		1	733263	SCB	EET SL	08/22/25 13:14

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 310-311926-1
Project/Site: MidAmerican WSEC CCR

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25 *
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25 *
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-311926 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 7/25/25 | TIME 1530 | Received By BP

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ~~☐ No~~ BP *If yes:* Cooler # 1 of 3

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes.* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID: AA | Correction Factor (°C): ±0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.9 | Corrected Temp (°C): 1.9

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 7/25/25 | TIME 1530 | Received By: BP

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 2 of 3

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID: AA | Correction Factor (°C): +0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.8 | Corrected Temp (°C): 1.8

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C)		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 7/25/25 | TIME 1530 | Received By: BP

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID.

Multiple Coolers? ☒ Yes ☐ No *If yes.* Cooler # 3 of 3

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes.* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID. AA | Correction Factor (°C): +0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C). 3.0 | Corrected Temp (°C). 3.0

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

EUROFINS
DES MOINES SERVICE CENTER
214

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

Client Information	Sampler: Layne Lunsford	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No: 072525
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@EurofinsUS.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:

Address: 11228 Aurora Avenue	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Des Moines	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State Zip: IA, 50322-7905			
Phone: 515-414-3935	PO #: 340-016858		Other:
Email: Kevin.Armstrong@ghd com	WO #:		
Project Name: MidAmencan WSEC CCR	Eurofins Project #: 31017236		
Project Number: 12592594 DEL.001	SSOW#: 12592594-002		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Rad226/Rad228/Rad228/228 combined	6020A CCR Metals List, 7470A Mercury	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N		
MW05D-GW-0725	7/24/25	12:30	G	W	N	N	X	X	X	X	X	5	
MW22D-GW-0725	7/24/25	15:00	G	W	N	N	X	X	X	X	X	5	
MW156D-GW-0725	7/24/25	16:30	G	W	N	N	X	X	X	X	X	5	
MW227D-GW-0725	7/24/25	14:00	G	W	N	N	X	X	X	X	X	5	
MW307D-GW-0725	7/24/25	10:20	G	W	N	Y	X	X	X	X	X	15	
DP01-GW-0725	7/24/25	—	G	W	N	N	X	X	X	X	X	5	

KCA 7-25-25

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements. **Database Facility Code: GD-MidAmerican-01723**

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Layne Lunsford	Date/Time: 7/24/25 8:30	Company: GHD	Received by: Ken Henzl	Date/Time: 7/25/25 1310	Company: Eurofins
Relinquished by:	Date/Time:	Company:	Received by: SC	Date/Time: 7/25/25 1530	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-311926-1

Login Number: 311926
List Number: 1
Creator: Cappi, Sage

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR

Job ID: 310-311926-1

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
310-311926-1	MW05D-GW-0725	83.9
310-311926-2	MW22D-GW-0725	85.9
310-311926-3	MW156D-GW-0725	91.8
310-311926-4	MW227D-GW-0725	88.6
310-311926-5	MW307D-GW-0725	85.6
310-311926-5 MS	MW307D-GW-0725	83.9
310-311926-5 MSD	MW307D-GW-0725	81.4
310-311926-6	DP01-GW-0725	82.9
LCS 160-729738/2-A	Lab Control Sample	92.8
MB 160-729738/1-A	Method Blank	90.3

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-311926-1	MW05D-GW-0725	83.9	78.1
310-311926-2	MW22D-GW-0725	85.9	76.6
310-311926-3	MW156D-GW-0725	91.8	83.4
310-311926-4	MW227D-GW-0725	88.6	79.6
310-311926-5	MW307D-GW-0725	85.6	81.1
310-311926-5 MS	MW307D-GW-0725	83.9	79.3
310-311926-5 MSD	MW307D-GW-0725	81.4	83.0
310-311926-6	DP01-GW-0725	82.9	80.0
LCS 160-729754/2-A	Lab Control Sample	92.8	80.4
MB 160-729754/1-A	Method Blank	90.3	81.5

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 10/31/2025 11:41:40 AM

JOB DESCRIPTION

MidAmerican WSEC CCR Background
Background

JOB NUMBER

310-316877-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
10/31/2025 11:41:40 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 19
QC Sample Results 20
QC Association 29
Chronicle 33
Certification Summary 36
Method Summary 37
Chain of Custody 38
Receipt Checklists 42
Tracer Carrier Summary 43

Job ID: 310-316877-1 Eurofins Cedar Falls

Job Narrative
310-316877-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/1/2025 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.3°C, 0.9°C and 2.3°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: TW1-GW-1025 (310-316877-1), TW2-GW-1025 (310-316877-2), MW34-GW-1025 (310-316877-3), MW307-GW-1025 (310-316877-4) and MW307D-GW-1025 (310-316877-5). Elevated reporting limits (RLs) are provided.

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

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

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

Job ID: 310-316877-2 Eurofins Cedar Falls

Job Narrative
310-316877-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/1/2025 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.3°C, 0.9°C and 2.3°C.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-316877-1	TW1-GW-1025	Water	09/29/25 18:00	10/01/25 09:30	Iowa
310-316877-2	TW2-GW-1025	Water	09/29/25 16:30	10/01/25 09:30	Iowa
310-316877-3	MW34-GW-1025	Water	09/29/25 19:05	10/01/25 09:30	Iowa
310-316877-4	MW307-GW-1025	Water	09/30/25 09:40	10/01/25 09:30	Iowa
310-316877-5	MW307D-GW-1025	Water	09/30/25 09:00	10/01/25 09:30	Iowa

Detection Summary

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR Background

Job ID: 310-316877-1

Client Sample ID: TW1-GW-1025 — Lab Sample ID: 310-316877-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.8		5.00		mg/L	5		9056A	Total/NA
Sulfate	204		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0428		0.00200		mg/L	1		6020B	Total/NA
Barium	0.466		0.00200		mg/L	1		6020B	Total/NA
Boron	0.373		0.100		mg/L	1		6020B	Total/NA
Calcium	178		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000554		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0438		0.0100		mg/L	1		6020B	Total/NA
Lead	0.000928		0.000500		mg/L	1		6020B	Total/NA
Molybdenum	0.00337		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	832		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TW2-GW-1025 — Lab Sample ID: 310-316877-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15.8		5.00		mg/L	5		9056A	Total/NA
Sulfate	11.1		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0913		0.00200		mg/L	1		6020B	Total/NA
Barium	0.175		0.00200		mg/L	1		6020B	Total/NA
Boron	0.432		0.100		mg/L	1		6020B	Total/NA
Calcium	148		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0598		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00287		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	730		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW34-GW-1025 — Lab Sample ID: 310-316877-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.23		5.00		mg/L	5		9056A	Total/NA
Sulfate	29.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0922		0.00200		mg/L	1		6020B	Total/NA
Barium	0.449		0.00200		mg/L	1		6020B	Total/NA
Boron	0.134		0.100		mg/L	1		6020B	Total/NA
Calcium	85.1		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000643		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0341		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00420		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	428		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW307-GW-1025 — Lab Sample ID: 310-316877-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	84.3		5.00		mg/L	5		9056A	Total/NA
Barium	0.202		0.00200		mg/L	1		6020B	Total/NA
Boron	0.202		0.100		mg/L	1		6020B	Total/NA
Calcium	124		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0861		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00687		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	512		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW307-GW-1025 (Continued)
Lab Sample ID: 310-316877-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW307D-GW-1025
Lab Sample ID: 310-316877-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.14		5.00		mg/L	5		9056A	Total/NA
Sulfate	43.3		5.00		mg/L	5		9056A	Total/NA
Barium	0.244		0.00200		mg/L	1		6020B	Total/NA
Boron	0.204		0.100		mg/L	1		6020B	Total/NA
Calcium	121		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0764		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00330		0.00200		mg/L	1		6020B	Total/NA
Total Dissolved Solids	512		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TW1-GW-1025 Lab Sample ID: 310-316877-1

Date Collected: 09/29/25 18:00 **Matrix: Water**
Date Received: 10/01/25 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.8**		5.00		mg/L			10/02/25 12:06	5
Fluoride	<1.00		1.00		mg/L			10/02/25 12:06	5
Sulfate	**204**		5.00		mg/L			10/02/25 12:06	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 19:51	1
Arsenic	**0.0428**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:51	1
Barium	**0.466**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:51	1
Beryllium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:51	1
Boron	**0.373**		0.100		mg/L		10/03/25 10:00	10/09/25 13:47	1
Cadmium	<0.000200		0.000200		mg/L		10/03/25 10:00	10/08/25 19:51	1
Calcium	**178**		0.500		mg/L		10/03/25 10:00	10/08/25 19:51	1
Chromium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:51	1
Cobalt	**0.000554**		0.000500		mg/L		10/03/25 10:00	10/08/25 19:51	1
Lithium	**0.0438**		0.0100		mg/L		10/03/25 10:00	10/08/25 19:51	1
Lead	**0.000928**		0.000500		mg/L		10/03/25 10:00	10/08/25 19:51	1
Molybdenum	**0.00337**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:51	1
Selenium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:51	1
Thallium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**832**		50.0		mg/L			10/01/25 14:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.0**	**HF**	1.0		SU			10/01/25 11:34	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.585**		0.291	0.296	1.00	0.351	pCi/L	10/06/25 08:00	10/30/25 16:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.6*		*30 - 110*	*10/06/25 08:00*	*10/30/25 16:55*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.91**		0.581	0.640	1.00	0.522	pCi/L	10/06/25 08:04	10/30/25 11:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.6*		*30 - 110*	*10/06/25 08:04*	*10/30/25 11:42*	*1*
Y Carrier	*84.5*		*30 - 110*	*10/06/25 08:04*	*10/30/25 11:42*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: TW1-GW-1025
Lab Sample ID: 310-316877-1
Date Collected: 09/29/25 18:00
Matrix: Water
Date Received: 10/01/25 09:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.50		0.650	0.705	5.00	0.522	pCi/L		10/31/25 09:30	1

Client Sample ID: TW2-GW-1025 — Lab Sample ID: 310-316877-2

Date Collected: 09/29/25 16:30 — **Matrix: Water**
Date Received: 10/01/25 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.8**		5.00		mg/L			10/02/25 12:53	5
Fluoride	<1.00		1.00		mg/L			10/02/25 12:53	5
Sulfate	**11.1**		5.00		mg/L			10/02/25 12:53	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 19:54	1
Arsenic	**0.0913**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:54	1
Barium	**0.175**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:54	1
Beryllium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:54	1
Boron	**0.432**		0.100		mg/L		10/03/25 10:00	10/09/25 13:50	1
Cadmium	<0.000200		0.000200		mg/L		10/03/25 10:00	10/08/25 19:54	1
Calcium	**148**		0.500		mg/L		10/03/25 10:00	10/08/25 19:54	1
Chromium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:54	1
Cobalt	<0.000500		0.000500		mg/L		10/03/25 10:00	10/08/25 19:54	1
Lithium	**0.0598**		0.0100		mg/L		10/03/25 10:00	10/08/25 19:54	1
Lead	<0.000500		0.000500		mg/L		10/03/25 10:00	10/08/25 19:54	1
Molybdenum	**0.00287**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:54	1
Selenium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:54	1
Thallium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**730**		50.0		mg/L			10/01/25 14:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			10/01/25 11:32	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.494	U	0.355	0.358	1.00	0.499	pCi/L	10/06/25 08:00	10/30/25 16:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*75.4*		*30 - 110*	*10/06/25 08:00*	*10/30/25 16:55*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.77**		0.715	0.733	1.00	0.911	pCi/L	10/06/25 08:04	10/30/25 11:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*75.4*		*30 - 110*	*10/06/25 08:04*	*10/30/25 11:49*	*1*
Y Carrier	*72.1*		*30 - 110*	*10/06/25 08:04*	*10/30/25 11:49*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: MidAmerican WSEC CCR Background

Job ID: 310-316877-1

Client Sample ID: TW2-GW-1025

Date Collected: 09/29/25 16:30
Date Received: 10/01/25 09:30

Lab Sample ID: 310-316877-2

Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.26		0.798	0.816	5.00	0.911	pCi/L		10/31/25 09:30	1

Client Sample ID: MW34-GW-1025 — Lab Sample ID: 310-316877-3

Date Collected: 09/29/25 19:05 — **Matrix: Water**
Date Received: 10/01/25 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.23**		5.00		mg/L			10/02/25 13:07	5
Fluoride	<1.00		1.00		mg/L			10/02/25 13:07	5
Sulfate	**29.6**		5.00		mg/L			10/02/25 13:07	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 19:57	1
Arsenic	**0.0922**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:57	1
Barium	**0.449**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:57	1
Beryllium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:57	1
Boron	**0.134**		0.100		mg/L		10/03/25 10:00	10/09/25 13:53	1
Cadmium	<0.000200		0.000200		mg/L		10/03/25 10:00	10/08/25 19:57	1
Calcium	**85.1**		0.500		mg/L		10/03/25 10:00	10/08/25 19:57	1
Chromium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:57	1
Cobalt	**0.000643**		0.000500		mg/L		10/03/25 10:00	10/08/25 19:57	1
Lithium	**0.0341**		0.0100		mg/L		10/03/25 10:00	10/08/25 19:57	1
Lead	<0.000500		0.000500		mg/L		10/03/25 10:00	10/08/25 19:57	1
Molybdenum	**0.00420**		0.00200		mg/L		10/03/25 10:00	10/08/25 19:57	1
Selenium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 19:57	1
Thallium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 19:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**428**		50.0		mg/L			10/01/25 14:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.1**	**HF**	1.0		SU			10/01/25 11:35	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0324	U	0.279	0.279	1.00	0.544	pCi/L	10/07/25 07:59	10/30/25 16:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*10/07/25 07:59*	*10/30/25 16:57*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.984**		0.529	0.536	1.00	0.748	pCi/L	10/07/25 08:03	10/30/25 11:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*90.3*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*
Y Carrier	*79.6*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW34-GW-1025
Lab Sample ID: 310-316877-3
Date Collected: 09/29/25 19:05
Matrix: Water
Date Received: 10/01/25 09:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.02		0.598	0.604	5.00	0.748	pCi/L		10/31/25 09:30	1

Client Sample ID: MW307-GW-1025 — Lab Sample ID: 310-316877-4

Date Collected: 09/30/25 09:40 — **Matrix: Water**
Date Received: 10/01/25 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			10/02/25 13:20	5
Fluoride	<1.00		1.00		mg/L			10/02/25 13:20	5
Sulfate	**84.3**		5.00		mg/L			10/02/25 13:20	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:34	1
Arsenic	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:34	1
Barium	**0.202**		0.00200		mg/L		10/08/25 08:30	10/10/25 18:34	1
Beryllium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:34	1
Boron	**0.202**		0.100		mg/L		10/08/25 08:30	10/10/25 18:34	1
Cadmium	<0.000200		0.000200		mg/L		10/08/25 08:30	10/10/25 18:34	1
Calcium	**124**		0.500		mg/L		10/08/25 08:30	10/10/25 18:34	1
Chromium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:34	1
Cobalt	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:34	1
Lithium	**0.0861**		0.0100		mg/L		10/08/25 08:30	10/10/25 18:34	1
Lead	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:34	1
Molybdenum	**0.00687**		0.00200		mg/L		10/08/25 08:30	10/10/25 18:34	1
Selenium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:34	1
Thallium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**512**		50.0		mg/L			10/01/25 14:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.0**	**HF**	1.0		SU			10/01/25 11:36	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146	U	0.210	0.210	1.00	0.357	pCi/L	10/07/25 07:59	10/30/25 16:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*83.3*		*30 - 110*	*10/07/25 07:59*	*10/30/25 16:57*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.359	U	0.377	0.379	1.00	0.612	pCi/L	10/07/25 08:03	10/30/25 11:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*83.3*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*
Y Carrier	*80.4*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307-GW-1025
Lab Sample ID: 310-316877-4

Date Collected: 09/30/25 09:40
Matrix: Water

Date Received: 10/01/25 09:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.505	U	0.432	0.433	5.00	0.612	pCi/L		10/31/25 09:30	1

Client Sample ID: MW307D-GW-1025
Lab Sample ID: 310-316877-5

Date Collected: 09/30/25 09:00
Matrix: Water
Date Received: 10/01/25 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.14**		5.00		mg/L			10/02/25 13:34	5
Fluoride	<1.00		1.00		mg/L			10/02/25 13:34	5
Sulfate	**43.3**		5.00		mg/L			10/02/25 13:34	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:37	1
Arsenic	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:37	1
Barium	**0.244**		0.00200		mg/L		10/08/25 08:30	10/10/25 18:37	1
Beryllium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:37	1
Boron	**0.204**		0.100		mg/L		10/08/25 08:30	10/10/25 18:37	1
Cadmium	<0.000200		0.000200		mg/L		10/08/25 08:30	10/10/25 18:37	1
Calcium	**121**		0.500		mg/L		10/08/25 08:30	10/10/25 18:37	1
Chromium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:37	1
Cobalt	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:37	1
Lithium	**0.0764**		0.0100		mg/L		10/08/25 08:30	10/10/25 18:37	1
Lead	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:37	1
Molybdenum	**0.00330**		0.00200		mg/L		10/08/25 08:30	10/10/25 18:37	1
Selenium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:37	1
Thallium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**512**		50.0		mg/L			10/01/25 14:29	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.2**	**HF**	1.0		SU			10/01/25 11:38	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.276	U	0.268	0.269	1.00	0.421	pCi/L	10/06/25 08:10	10/30/25 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.6*		*30 - 110*	*10/06/25 08:10*	*10/30/25 14:16*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.366	U	0.419	0.420	1.00	0.688	pCi/L	10/06/25 08:14	10/30/25 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.6*		*30 - 110*	*10/06/25 08:14*	*10/30/25 09:42*	*1*
Y Carrier	*77.8*		*30 - 110*	*10/06/25 08:14*	*10/30/25 09:42*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307D-GW-1025
Lab Sample ID: 310-316877-5

Date Collected: 09/30/25 09:00
Matrix: Water

Date Received: 10/01/25 09:30

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.641	U	0.497	0.499	5.00	0.688	pCi/L		10/31/25 11:19	1

Definitions/Glossary

Client: GHD Services Inc. Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-468800/3
Matrix: Water
Analysis Batch: 468800

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			10/02/25 10:04	1
Fluoride	<0.200		0.200		mg/L			10/02/25 10:04	1
Sulfate	<1.00		1.00		mg/L			10/02/25 10:04	1

Lab Sample ID: LCS 310-468800/4
Matrix: Water
Analysis Batch: 468800

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.992		mg/L		100	90 - 110
Fluoride	2.00	2.018		mg/L		101	90 - 110
Sulfate	10.0	10.08		mg/L		101	90 - 110

Lab Sample ID: 310-316877-5 MS
Matrix: Water
Analysis Batch: 468800

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.14		25.0	26.30		mg/L		85	80 - 120
Fluoride	<1.00		5.00	5.118		mg/L		102	80 - 120
Sulfate	43.3		25.0	68.67		mg/L		102	80 - 120

Lab Sample ID: 310-316877-5 MSD
Matrix: Water
Analysis Batch: 468800

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.14		25.0	26.44		mg/L		85	80 - 120	1	15
Fluoride	<1.00		5.00	5.221		mg/L		104	80 - 120	2	15
Sulfate	43.3		25.0	67.40		mg/L		97	80 - 120	2	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-468716/1-A
Matrix: Water
Analysis Batch: 469410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 18:37	1
Arsenic	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 18:37	1
Barium	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 18:37	1
Beryllium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 18:37	1
Cadmium	<0.000200		0.000200		mg/L		10/03/25 10:00	10/08/25 18:37	1
Calcium	<0.500		0.500		mg/L		10/03/25 10:00	10/08/25 18:37	1
Chromium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 18:37	1
Cobalt	<0.000500		0.000500		mg/L		10/03/25 10:00	10/08/25 18:37	1
Lithium	<0.0100		0.0100		mg/L		10/03/25 10:00	10/08/25 18:37	1
Lead	<0.000500		0.000500		mg/L		10/03/25 10:00	10/08/25 18:37	1
Molybdenum	<0.00200		0.00200		mg/L		10/03/25 10:00	10/08/25 18:37	1
Selenium	<0.00500		0.00500		mg/L		10/03/25 10:00	10/08/25 18:37	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-468716/1-A
Matrix: Water
Analysis Batch: 469410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00100		0.00100		mg/L		10/03/25 10:00	10/08/25 18:37	1

Lab Sample ID: MB 310-468716/1-A
Matrix: Water
Analysis Batch: 469592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		10/03/25 10:00	10/09/25 13:17	1

Lab Sample ID: LCS 310-468716/2-A
Matrix: Water
Analysis Batch: 469410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2132		mg/L		107	80 - 120
Arsenic	0.200	0.2010		mg/L		101	80 - 120
Barium	0.100	0.09726		mg/L		97	80 - 120
Beryllium	0.100	0.1004		mg/L		100	80 - 120
Cadmium	0.100	0.09967		mg/L		100	80 - 120
Calcium	2.00	2.113		mg/L		106	80 - 120
Chromium	0.100	0.09891		mg/L		99	80 - 120
Cobalt	0.100	0.09495		mg/L		95	80 - 120
Lithium	0.200	0.2073		mg/L		104	80 - 120
Lead	0.200	0.2110		mg/L		106	80 - 120
Molybdenum	0.200	0.1949		mg/L		97	80 - 120
Selenium	0.400	0.3831		mg/L		96	80 - 120
Thallium	0.100	0.1012		mg/L		101	80 - 120

Lab Sample ID: LCS 310-468716/2-A
Matrix: Water
Analysis Batch: 469592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2133		mg/L		107	80 - 120

Lab Sample ID: MB 310-469201/1-A
Matrix: Water
Analysis Batch: 469788

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:11	1
Arsenic	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:11	1
Barium	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:11	1
Beryllium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:11	1
Boron	<0.100		0.100		mg/L		10/08/25 08:30	10/10/25 18:11	1
Cadmium	<0.000200		0.000200		mg/L		10/08/25 08:30	10/10/25 18:11	1
Calcium	<0.500		0.500		mg/L		10/08/25 08:30	10/10/25 18:11	1
Chromium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:11	1
Cobalt	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:11	1
Lithium	<0.0100		0.0100		mg/L		10/08/25 08:30	10/10/25 18:11	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-469201/1-A
Matrix: Water
Analysis Batch: 469788

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.000500		0.000500		mg/L		10/08/25 08:30	10/10/25 18:11	1
Molybdenum	<0.00200		0.00200		mg/L		10/08/25 08:30	10/10/25 18:11	1
Selenium	<0.00500		0.00500		mg/L		10/08/25 08:30	10/10/25 18:11	1
Thallium	<0.00100		0.00100		mg/L		10/08/25 08:30	10/10/25 18:11	1

Lab Sample ID: LCS 310-469201/2-A
Matrix: Water
Analysis Batch: 469788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2107		mg/L		105	80 - 120
Arsenic	0.200	0.1929		mg/L		96	80 - 120
Barium	0.100	0.09439		mg/L		94	80 - 120
Beryllium	0.100	0.09785		mg/L		98	80 - 120
Boron	0.200	0.1917		mg/L		96	80 - 120
Cadmium	0.100	0.09417		mg/L		94	80 - 120
Calcium	2.00	1.701		mg/L		85	80 - 120
Chromium	0.100	0.09764		mg/L		98	80 - 120
Cobalt	0.100	0.09571		mg/L		96	80 - 120
Lithium	0.200	0.1992		mg/L		100	80 - 120
Lead	0.200	0.1901		mg/L		95	80 - 120
Molybdenum	0.200	0.2085		mg/L		104	80 - 120
Selenium	0.400	0.3804		mg/L		95	80 - 120
Thallium	0.100	0.1107		mg/L		111	80 - 120

Lab Sample ID: 310-316877-5 MS
Matrix: Water
Analysis Batch: 469788

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 469201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2310		mg/L		116	75 - 125
Arsenic	<0.00200		0.200	0.2093		mg/L		104	75 - 125
Barium	0.244		0.100	0.3573		mg/L		113	75 - 125
Beryllium	<0.00100		0.100	0.1023		mg/L		102	75 - 125
Boron	0.204		0.200	0.4048		mg/L		100	75 - 125
Cadmium	<0.000200		0.100	0.1008		mg/L		101	75 - 125
Calcium	121		2.00	127.0	4	mg/L		315	75 - 125
Chromium	<0.00500		0.100	0.1006		mg/L		101	75 - 125
Cobalt	<0.000500		0.100	0.09580		mg/L		96	75 - 125
Lithium	0.0764		0.200	0.2757		mg/L		100	75 - 125
Lead	<0.000500		0.200	0.2026		mg/L		101	75 - 125
Molybdenum	0.00330		0.200	0.2207		mg/L		109	75 - 125
Selenium	<0.00500		0.400	0.4208		mg/L		105	75 - 125
Thallium	<0.00100		0.100	0.1072		mg/L		107	75 - 125

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-316877-5 MSD
Matrix: Water
Analysis Batch: 469788

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 469201

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2321		mg/L		116	75 - 125	0	20
Arsenic	<0.00200		0.200	0.2098		mg/L		105	75 - 125	0	20
Barium	0.244		0.100	0.3585		mg/L		115	75 - 125	0	20
Beryllium	<0.00100		0.100	0.1024		mg/L		102	75 - 125	0	20
Boron	0.204		0.200	0.4132		mg/L		104	75 - 125	2	20
Cadmium	<0.000200		0.100	0.1017		mg/L		102	75 - 125	1	20
Calcium	121		2.00	127.2	4	mg/L		326	75 - 125	0	20
Chromium	<0.00500		0.100	0.1054		mg/L		105	75 - 125	5	20
Cobalt	<0.000500		0.100	0.09592		mg/L		96	75 - 125	0	20
Lithium	0.0764		0.200	0.2757		mg/L		100	75 - 125	0	20
Lead	<0.000500		0.200	0.2023		mg/L		101	75 - 125	0	20
Molybdenum	0.00330		0.200	0.2214		mg/L		109	75 - 125	0	20
Selenium	<0.00500		0.400	0.4168		mg/L		104	75 - 125	1	20
Thallium	<0.00100		0.100	0.1056		mg/L		106	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-469470/1-A
Matrix: Water
Analysis Batch: 469704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 10:48	1

Lab Sample ID: LCS 310-469470/2-A
Matrix: Water
Analysis Batch: 469704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001739		mg/L		104	80 - 120

Lab Sample ID: MB 310-469478/1-A
Matrix: Water
Analysis Batch: 469704

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/09/25 15:00	10/10/25 11:43	1

Lab Sample ID: LCS 310-469478/2-A
Matrix: Water
Analysis Batch: 469704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001702		mg/L		102	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 310-316877-5 MS
Matrix: Water
Analysis Batch: 469704

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 469478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001716		mg/L		103	80 - 120

Lab Sample ID: 310-316877-5 MSD
Matrix: Water
Analysis Batch: 469704

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 469478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001722		mg/L		103	80 - 120	0	20

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

Lab Sample ID: MB 310-468573/1
Matrix: Water
Analysis Batch: 468573

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			10/01/25 14:29	1

Lab Sample ID: LCS 310-468573/2
Matrix: Water
Analysis Batch: 468573

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	934.0		mg/L		93	89 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-468537/1
Matrix: Water
Analysis Batch: 468537

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	98 - 102

Lab Sample ID: 310-316877-5 DU
Matrix: Water
Analysis Batch: 468537

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.2	HF	7.2		SU		0	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-739223/1-A
Matrix: Water
Analysis Batch: 742990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739223

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04016	U	0.170	0.170	1.00	0.363	pCi/L	10/06/25 08:00	10/30/25 16:44	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-739223/1-A
Matrix: Water
Analysis Batch: 742990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739223

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110	10/06/25 08:00	10/30/25 16:44	1

Lab Sample ID: LCS 160-739223/2-A
Matrix: Water
Analysis Batch: 742990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739223

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	7.953		1.13	1.00	0.337	pCi/L	83	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	82.6		30 - 110

Lab Sample ID: 310-316877-1 DU
Matrix: Water
Analysis Batch: 743002

Client Sample ID: TW1-GW-1025
Prep Type: Total/NA
Prep Batch: 739223

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.585			0.8112		0.339	1.00	0.346	pCi/L			0.36	1

Carrier	DU %Yield	DU Qualifier	Limits
Barium	76.6		30 - 110

Lab Sample ID: MB 160-739240/1-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739240

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04206	U	0.237	0.237	1.00	0.449	pCi/L	10/06/25 08:10	10/30/25 14:16	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	91.5		30 - 110	10/06/25 08:10	10/30/25 14:16	1

Lab Sample ID: LCS 160-739240/2-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739240

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	7.778		1.09	1.00	0.324	pCi/L	81	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	92.5		30 - 110

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 310-316877-5 MS
Matrix: Water
Analysis Batch: 743002

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 739240

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.276	U	9.54	8.908		1.23	1.00	0.352	pCi/L	90	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*87.1*		*30 - 110*

Lab Sample ID: 310-316877-5 MSD
Matrix: Water
Analysis Batch: 743002

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 739240

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.276	U	9.57	8.183		1.18	1.00	0.406	pCi/L	83	60 - 140	0.30	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*82.6*		*30 - 110*

Lab Sample ID: MB 160-739523/1-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739523

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04354	U	0.245	0.245	1.00	0.465	pCi/L	10/07/25 07:59	10/30/25 16:56	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.1*		*30 - 110*	*10/07/25 07:59*	*10/30/25 16:56*	*1*

Lab Sample ID: LCS 160-739523/2-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739523

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	8.822		1.20	1.00	0.327	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*88.6*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-739239/1-A
Matrix: Water
Analysis Batch: 742990

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739239

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1083	U	0.370	0.370	1.00	0.655	pCi/L	10/06/25 08:04	10/30/25 11:39	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	89.1		30 - 110	10/06/25 08:04	10/30/25 11:39	1
Y Carrier	77.4		30 - 110	10/06/25 08:04	10/30/25 11:39	1

Lab Sample ID: LCS 160-739239/2-A
Matrix: Water
Analysis Batch: 742990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739239

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.97	8.440		1.22	1.00	0.553	pCi/L	106	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	82.6		30 - 110
Y Carrier	83.0		30 - 110

Lab Sample ID: 310-316877-1 DU
Matrix: Water
Analysis Batch: 743002

Client Sample ID: TW1-GW-1025
Prep Type: Total/NA
Prep Batch: 739239

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	2.91			3.232		0.756	1.00	0.700	pCi/L			0.23	1

Carrier	DU %Yield	DU Qualifier	Limits
Barium	76.6		30 - 110
Y Carrier	78.9		30 - 110

Lab Sample ID: MB 160-739241/1-A
Matrix: Water
Analysis Batch: 743016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739241

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1526	U	0.384	0.385	1.00	0.673	pCi/L	10/06/25 08:14	10/30/25 09:42	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Barium	91.5		30 - 110	10/06/25 08:14	10/30/25 09:42	1
Y Carrier	78.9		30 - 110	10/06/25 08:14	10/30/25 09:42	1

Lab Sample ID: LCS 160-739241/2-A
Matrix: Water
Analysis Batch: 743016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739241

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.97	9.859		1.37	1.00	0.621	pCi/L	124	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Barium	92.5		30 - 110
Y Carrier	78.9		30 - 110

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 310-316877-5 MS
Matrix: Water
Analysis Batch: 742990

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 739241

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	0.366	U	7.95	9.998		1.42	1.00	0.722	pCi/L	121	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Barium	*87.1*		*30 - 110*
Y Carrier	*72.5*		*30 - 110*

Lab Sample ID: 310-316877-5 MSD
Matrix: Water
Analysis Batch: 742990

Client Sample ID: MW307D-GW-1025
Prep Type: Total/NA
Prep Batch: 739241

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.366	U	7.97	9.296		1.33	1.00	0.597	pCi/L	112	60 - 140	0.25	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Barium	*82.6*		*30 - 110*
Y Carrier	*77.8*		*30 - 110*

Lab Sample ID: MB 160-739524/1-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739524

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1945	U	0.370	0.370	1.00	0.637	pCi/L	10/07/25 08:03	10/30/25 11:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*85.1*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*
Y Carrier	*80.0*		*30 - 110*	*10/07/25 08:03*	*10/30/25 11:54*	*1*

Lab Sample ID: LCS 160-739524/2-A
Matrix: Water
Analysis Batch: 743002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739524

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			7.97	9.417		1.32	1.00	0.593	pCi/L	118	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*88.6*		*30 - 110*
Y Carrier	*76.3*		*30 - 110*

HPLC/IC

Analysis Batch: 468800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	9056A	
310-316877-2	TW2-GW-1025	Total/NA	Water	9056A	
310-316877-3	MW34-GW-1025	Total/NA	Water	9056A	
310-316877-4	MW307-GW-1025	Total/NA	Water	9056A	
310-316877-5	MW307D-GW-1025	Total/NA	Water	9056A	
MB 310-468800/3	Method Blank	Total/NA	Water	9056A	
LCS 310-468800/4	Lab Control Sample	Total/NA	Water	9056A	
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	9056A	
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	9056A	

Metals

Prep Batch: 468716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	3005A	
310-316877-2	TW2-GW-1025	Total/NA	Water	3005A	
310-316877-3	MW34-GW-1025	Total/NA	Water	3005A	
MB 310-468716/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-468716/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 469201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-4	MW307-GW-1025	Total/NA	Water	3005A	
310-316877-5	MW307D-GW-1025	Total/NA	Water	3005A	
MB 310-469201/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-469201/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	3005A	
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	3005A	

Analysis Batch: 469410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	6020B	468716
310-316877-2	TW2-GW-1025	Total/NA	Water	6020B	468716
310-316877-3	MW34-GW-1025	Total/NA	Water	6020B	468716
MB 310-468716/1-A	Method Blank	Total/NA	Water	6020B	468716
LCS 310-468716/2-A	Lab Control Sample	Total/NA	Water	6020B	468716

Prep Batch: 469470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	7470A	
310-316877-2	TW2-GW-1025	Total/NA	Water	7470A	
310-316877-3	MW34-GW-1025	Total/NA	Water	7470A	
310-316877-4	MW307-GW-1025	Total/NA	Water	7470A	
MB 310-469470/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-469470/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 469478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-5	MW307D-GW-1025	Total/NA	Water	7470A	
MB 310-469478/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-469478/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 469478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	7470A	
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	7470A	

Analysis Batch: 469592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	6020B	468716
310-316877-2	TW2-GW-1025	Total/NA	Water	6020B	468716
310-316877-3	MW34-GW-1025	Total/NA	Water	6020B	468716
MB 310-468716/1-A	Method Blank	Total/NA	Water	6020B	468716
LCS 310-468716/2-A	Lab Control Sample	Total/NA	Water	6020B	468716

Analysis Batch: 469704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	7470A	469470
310-316877-2	TW2-GW-1025	Total/NA	Water	7470A	469470
310-316877-3	MW34-GW-1025	Total/NA	Water	7470A	469470
310-316877-4	MW307-GW-1025	Total/NA	Water	7470A	469470
310-316877-5	MW307D-GW-1025	Total/NA	Water	7470A	469478
MB 310-469470/1-A	Method Blank	Total/NA	Water	7470A	469470
MB 310-469478/1-A	Method Blank	Total/NA	Water	7470A	469478
LCS 310-469470/2-A	Lab Control Sample	Total/NA	Water	7470A	469470
LCS 310-469478/2-A	Lab Control Sample	Total/NA	Water	7470A	469478
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	7470A	469478
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	7470A	469478

Analysis Batch: 469788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-4	MW307-GW-1025	Total/NA	Water	6020B	469201
310-316877-5	MW307D-GW-1025	Total/NA	Water	6020B	469201
MB 310-469201/1-A	Method Blank	Total/NA	Water	6020B	469201
LCS 310-469201/2-A	Lab Control Sample	Total/NA	Water	6020B	469201
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	6020B	469201
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	6020B	469201

General Chemistry

Analysis Batch: 468537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-316877-2	TW2-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-316877-3	MW34-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-316877-4	MW307-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-316877-5	MW307D-GW-1025	Total/NA	Water	SM 4500 H+ B	
LCS 310-468537/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-316877-5 DU	MW307D-GW-1025	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 468573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	SM 2540C	
310-316877-2	TW2-GW-1025	Total/NA	Water	SM 2540C	
310-316877-3	MW34-GW-1025	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 468573 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-4	MW307-GW-1025	Total/NA	Water	SM 2540C	
310-316877-5	MW307D-GW-1025	Total/NA	Water	SM 2540C	
MB 310-468573/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-468573/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 739223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	PrecSep-21	
310-316877-2	TW2-GW-1025	Total/NA	Water	PrecSep-21	
MB 160-739223/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-739223/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-316877-1 DU	TW1-GW-1025	Total/NA	Water	PrecSep-21	

Prep Batch: 739239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-1	TW1-GW-1025	Total/NA	Water	PrecSep_0	
310-316877-2	TW2-GW-1025	Total/NA	Water	PrecSep_0	
MB 160-739239/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-739239/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-316877-1 DU	TW1-GW-1025	Total/NA	Water	PrecSep_0	

Prep Batch: 739240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-5	MW307D-GW-1025	Total/NA	Water	PrecSep-21	
MB 160-739240/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-739240/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	PrecSep-21	
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	PrecSep-21	

Prep Batch: 739241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-5	MW307D-GW-1025	Total/NA	Water	PrecSep_0	
MB 160-739241/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-739241/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-316877-5 MS	MW307D-GW-1025	Total/NA	Water	PrecSep_0	
310-316877-5 MSD	MW307D-GW-1025	Total/NA	Water	PrecSep_0	

Prep Batch: 739523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-3	MW34-GW-1025	Total/NA	Water	PrecSep-21	
310-316877-4	MW307-GW-1025	Total/NA	Water	PrecSep-21	
MB 160-739523/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-739523/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 739524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-316877-3	MW34-GW-1025	Total/NA	Water	PrecSep_0	
310-316877-4	MW307-GW-1025	Total/NA	Water	PrecSep_0	
MB 160-739524/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 739524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-739524/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: TW1-GW-1025
Lab Sample ID: 310-316877-1
Date Collected: 09/29/25 18:00
Matrix: Water
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468800	QTZ5	EET CF	10/02/25 12:06
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469592	NFT2	EET CF	10/09/25 13:47
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469410	NFT2	EET CF	10/08/25 19:51
Total/NA	Prep	7470A			469470	RLT9	EET CF	10/09/25 15:00
Total/NA	Analysis	7470A		1	469704	RLT9	EET CF	10/10/25 11:13
Total/NA	Analysis	SM 2540C		1	468573	TGN5	EET CF	10/01/25 14:29
Total/NA	Analysis	SM 4500 H+ B		1	468537	W9YR	EET CF	10/01/25 11:34
Total/NA	Prep	PrecSep-21			739223	AMS	EET SL	10/06/25 08:00
Total/NA	Analysis	9315		1	743002	SWS	EET SL	10/30/25 16:55
Total/NA	Prep	PrecSep_0			739239	AMS	EET SL	10/06/25 08:04
Total/NA	Analysis	9320		1	742990	SWS	EET SL	10/30/25 11:42
Total/NA	Analysis	Ra226_Ra228		1	743094	SCB	EET SL	10/31/25 09:30

Client Sample ID: TW2-GW-1025
Lab Sample ID: 310-316877-2
Date Collected: 09/29/25 16:30
Matrix: Water
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468800	QTZ5	EET CF	10/02/25 12:53
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469592	NFT2	EET CF	10/09/25 13:50
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469410	NFT2	EET CF	10/08/25 19:54
Total/NA	Prep	7470A			469470	RLT9	EET CF	10/09/25 15:00
Total/NA	Analysis	7470A		1	469704	RLT9	EET CF	10/10/25 11:15
Total/NA	Analysis	SM 2540C		1	468573	TGN5	EET CF	10/01/25 14:29
Total/NA	Analysis	SM 4500 H+ B		1	468537	W9YR	EET CF	10/01/25 11:32
Total/NA	Prep	PrecSep-21			739223	AMS	EET SL	10/06/25 08:00
Total/NA	Analysis	9315		1	743002	SWS	EET SL	10/30/25 16:55
Total/NA	Prep	PrecSep_0			739239	AMS	EET SL	10/06/25 08:04
Total/NA	Analysis	9320		1	743002	SWS	EET SL	10/30/25 11:49
Total/NA	Analysis	Ra226_Ra228		1	743094	SCB	EET SL	10/31/25 09:30

Client Sample ID: MW34-GW-1025
Lab Sample ID: 310-316877-3
Date Collected: 09/29/25 19:05
Matrix: Water
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468800	QTZ5	EET CF	10/02/25 13:07
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469592	NFT2	EET CF	10/09/25 13:53

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW34-GW-1025 Lab Sample ID: 310-316877-3

Date Collected: 09/29/25 19:05 **Matrix: Water**
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			468716	F8JX	EET CF	10/03/25 10:00
Total/NA	Analysis	6020B		1	469410	NFT2	EET CF	10/08/25 19:57
Total/NA	Prep	7470A			469470	RLT9	EET CF	10/09/25 15:00
Total/NA	Analysis	7470A		1	469704	RLT9	EET CF	10/10/25 11:18
Total/NA	Analysis	SM 2540C		1	468573	TGN5	EET CF	10/01/25 14:29
Total/NA	Analysis	SM 4500 H+ B		1	468537	W9YR	EET CF	10/01/25 11:35
Total/NA	Prep	PrecSep-21			739523	AMS	EET SL	10/07/25 07:59
Total/NA	Analysis	9315		1	743002	SWS	EET SL	10/30/25 16:57
Total/NA	Prep	PrecSep_0			739524	AMS	EET SL	10/07/25 08:03
Total/NA	Analysis	9320		1	743002	SWS	EET SL	10/30/25 11:54
Total/NA	Analysis	Ra226_Ra228		1	743094	SCB	EET SL	10/31/25 09:30

Client Sample ID: MW307-GW-1025 Lab Sample ID: 310-316877-4

Date Collected: 09/30/25 09:40 **Matrix: Water**
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468800	QTZ5	EET CF	10/02/25 13:20
Total/NA	Prep	3005A			469201	QTZ5	EET CF	10/08/25 08:30
Total/NA	Analysis	6020B		1	469788	NFT2	EET CF	10/10/25 18:34
Total/NA	Prep	7470A			469470	RLT9	EET CF	10/09/25 15:00
Total/NA	Analysis	7470A		1	469704	RLT9	EET CF	10/10/25 11:20
Total/NA	Analysis	SM 2540C		1	468573	TGN5	EET CF	10/01/25 14:29
Total/NA	Analysis	SM 4500 H+ B		1	468537	W9YR	EET CF	10/01/25 11:36
Total/NA	Prep	PrecSep-21			739523	AMS	EET SL	10/07/25 07:59
Total/NA	Analysis	9315		1	743002	SWS	EET SL	10/30/25 16:57
Total/NA	Prep	PrecSep_0			739524	AMS	EET SL	10/07/25 08:03
Total/NA	Analysis	9320		1	743002	SWS	EET SL	10/30/25 11:54
Total/NA	Analysis	Ra226_Ra228		1	743094	SCB	EET SL	10/31/25 09:30

Client Sample ID: MW307D-GW-1025 Lab Sample ID: 310-316877-5

Date Collected: 09/30/25 09:00 **Matrix: Water**
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	468800	QTZ5	EET CF	10/02/25 13:34
Total/NA	Prep	3005A			469201	QTZ5	EET CF	10/08/25 08:30
Total/NA	Analysis	6020B		1	469788	NFT2	EET CF	10/10/25 18:37
Total/NA	Prep	7470A			469478	RLT9	EET CF	10/09/25 15:00
Total/NA	Analysis	7470A		1	469704	RLT9	EET CF	10/10/25 11:47
Total/NA	Analysis	SM 2540C		1	468573	TGN5	EET CF	10/01/25 14:29
Total/NA	Analysis	SM 4500 H+ B		1	468537	W9YR	EET CF	10/01/25 11:38
Total/NA	Prep	PrecSep-21			739240	AMS	EET SL	10/06/25 08:10
Total/NA	Analysis	9315		1	743002	SWS	EET SL	10/30/25 14:16

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Client Sample ID: MW307D-GW-1025
Lab Sample ID: 310-316877-5

Date Collected: 09/30/25 09:00
Matrix: Water
Date Received: 10/01/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			739241	AMS	EET SL	10/06/25 08:14
Total/NA	Analysis	9320		1	743016	SWS	EET SL	10/30/25 09:42
Total/NA	Analysis	Ra226_Ra228		1	743094	SCB	EET SL	10/31/25 11:19

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-26
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	10-31-25

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

Method Summary

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-316877 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHP

City/State: CITY Des Moines STATE IA Project

Receipt Information

Date/Time Received: DATE 10/1/25 TIME 0930 Received By JR

Delivery Type. ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☒ Yes ☐ No *If yes* Cooler # 1 of 3

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID. HH Correction Factor (°C) 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C) 0.9 Corrected Temp (°C): 0.9

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C):		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client	GHD		
City/State	CITY: Des Moines	STATE: IA	Project.
Receipt Information			
Date/Time Received	DATE: 10/1/25	TIME: 0930	Received By: JK

Delivery Type: ☐ UPS ☑ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes* Cooler ID:
Multiple Coolers?	☑ Yes ☐ No	*If yes.* Cooler # 2 of 3
Cooler Custody Seals Present?	☐ Yes ☑ No	*If yes* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: HH	Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C). 0.3	Corrected Temp (°C): 0.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C)		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD			
City/State: CITY: Des Moines	STATE: IA	Project:	
Receipt Information			
Date/Time Received: DATE: 10/1/25	TIME: 0930	Received By:	

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes.* Cooler ID.
Multiple Coolers?	☒ Yes ☐ No	*If yes.* Cooler # 3 of 3
Cooler Custody Seals Present?	☐ Yes ☒ No	*If yes* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID: HH	Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.3	Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C).		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes.* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

EUROFINS
DES MOINES SERVICE CENTER
214

Client Information	Sampler: ~~Brooke Wasson~~ / Paige Richards	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Binder@ET.EurofinsUS.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested:			
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd com	WO #:			
Project Name: MidAmerican WSEC CCR Background	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Rad226/Rad228/Rad228/228 combined	6020A CCR Metals List, 7470A Mercury	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N		
TW1-GW-1025	9/29/25	1800	G	W	N	N	X	X	X	X	X	5	
TW2-GW-1025	9/29/25	1630	G	W	N	N	X	X	X	X	X	5	
MW34-GW-1025	9/29/25	1905	G	W	N	N	X	X	X	X	X	5	
MW307-GW-1025	9/30/25	0940	G	W	N	N	X	X	X	X	X	5	
MW307D-GW-1025	9/30/25	0900	G	W	N	N	X	X	X	X	X	15	

PR PR

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:		Date:	Time		Method of Shipment:	
Relinquished by: Paige Richards	Date/Time: 9/30/25 1330	Company: GHD	Received by:	Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by: SR	Date/Time: 10/1/25 0930		Company

Custody Seals Intact: ^ Yes ^ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-316877-1

Login Number: 316877
List Number: 1
Creator: Robison, Jessie

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Job ID: 310-316877-1
Project/Site: MidAmerican WSEC CCR Background

Method: 9315 - Radium-226 (GFPC)

Matrix: Water
Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
310-316877-1	TW1-GW-1025	85.6
310-316877-1 DU	TW1-GW-1025	76.6
310-316877-2	TW2-GW-1025	75.4
310-316877-3	MW34-GW-1025	90.3
310-316877-4	MW307-GW-1025	83.3
310-316877-5	MW307D-GW-1025	89.6
310-316877-5 MS	MW307D-GW-1025	87.1
310-316877-5 MSD	MW307D-GW-1025	82.6
LCS 160-739223/2-A	Lab Control Sample	82.6
LCS 160-739240/2-A	Lab Control Sample	92.5
LCS 160-739523/2-A	Lab Control Sample	88.6
MB 160-739223/1-A	Method Blank	89.1
MB 160-739240/1-A	Method Blank	91.5
MB 160-739523/1-A	Method Blank	85.1

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water
Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
310-316877-1	TW1-GW-1025	85.6	84.5
310-316877-1 DU	TW1-GW-1025	76.6	78.9
310-316877-2	TW2-GW-1025	75.4	72.1
310-316877-3	MW34-GW-1025	90.3	79.6
310-316877-4	MW307-GW-1025	83.3	80.4
310-316877-5	MW307D-GW-1025	89.6	77.8
310-316877-5 MS	MW307D-GW-1025	87.1	72.5
310-316877-5 MSD	MW307D-GW-1025	82.6	77.8
LCS 160-739239/2-A	Lab Control Sample	82.6	83.0
LCS 160-739241/2-A	Lab Control Sample	92.5	78.9
LCS 160-739524/2-A	Lab Control Sample	88.6	76.3
MB 160-739239/1-A	Method Blank	89.1	77.4
MB 160-739241/1-A	Method Blank	91.5	78.9
MB 160-739524/1-A	Method Blank	85.1	80.0

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 11/5/2025 10:45:27 AM

JOB DESCRIPTION

MidAmerican WSEC CCR Monofill Monitoring
Monofill

JOB NUMBER

310-317210-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
11/5/2025 10:45:27 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 11
Definitions 34
QC Sample Results 35
QC Association 41
Chronicle 46
Certification Summary 52
Method Summary 53
Chain of Custody 54
Receipt Checklists 59
Tracer Carrier Summary 60

Job ID: 310-317210-1 Eurofins Cedar Falls

Job Narrative
310-317210-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/3/2025 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.3°C, 2.8°C and 4.6°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW105-GW-1025 (310-317210-1), MW108-GW-1025 (310-317210-2), MW133-GW-1025 (310-317210-3), MW156-GW-1025 (310-317210-4), MW157-GW-1025 (310-317210-5), MW158-GW-1025 (310-317210-6) and MW159-GW-1025 (310-317210-7). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW190-GW-1025 (310-317210-8), MW191-GW-1025 (310-317210-9), MW227-GW-1025 (310-317210-10), MW240R-GW-1025 (310-317210-11), MW244-GW-1025 (310-317210-12), MW245-GW-1025 (310-317210-13), MW246-GW-1025 (310-317210-14), MW247-GW-1025 (310-317210-15), MW248-GW-1025 (310-317210-16), MW250-GW-1025 (310-317210-17), DP03-GW-1025 (310-317210-18), DP04-GW-1025 (310-317210-19), MW156D-GW-1025 (310-317210-20) and MW227D-GW-1025 (310-317210-21). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The initial calibration verification (ICV) result for batch 310-470085 was above the upper control limit. The affected analytes are: antimony. Sample results were non-detects, and have been reported as qualified data.

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

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

Job ID: 310-317210-2 Eurofins Cedar Falls

Job Narrative
310-317210-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/3/2025 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.3°C, 2.8°C and 4.6°C.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-317210-1	MW105-GW-1025	Water	10/02/25 07:45	10/03/25 16:45	Iowa
310-317210-2	MW108-GW-1025	Water	10/01/25 14:50	10/03/25 16:45	Iowa
310-317210-3	MW133-GW-1025	Water	10/01/25 17:20	10/03/25 16:45	Iowa
310-317210-4	MW156-GW-1025	Water	10/02/25 11:00	10/03/25 16:45	Iowa
310-317210-5	MW157-GW-1025	Water	10/02/25 08:40	10/03/25 16:45	Iowa
310-317210-6	MW158-GW-1025	Water	10/02/25 09:30	10/03/25 16:45	Iowa
310-317210-7	MW159-GW-1025	Water	10/02/25 10:00	10/03/25 16:45	Iowa
310-317210-8	MW190-GW-1025	Water	10/02/25 10:55	10/03/25 16:45	Iowa
310-317210-9	MW191-GW-1025	Water	10/02/25 12:00	10/03/25 16:45	Iowa
310-317210-10	MW227-GW-1025	Water	10/01/25 19:30	10/03/25 16:45	Iowa
310-317210-11	MW240R-GW-1025	Water	10/01/25 17:30	10/03/25 16:45	Iowa
310-317210-12	MW244-GW-1025	Water	10/01/25 18:50	10/03/25 16:45	Iowa
310-317210-13	MW245-GW-1025	Water	10/02/25 12:00	10/03/25 16:45	Iowa
310-317210-14	MW246-GW-1025	Water	10/02/25 07:45	10/03/25 16:45	Iowa
310-317210-15	MW247-GW-1025	Water	10/02/25 08:15	10/03/25 16:45	Iowa
310-317210-16	MW248-GW-1025	Water	10/02/25 09:00	10/03/25 16:45	Iowa
310-317210-17	MW250-GW-1025	Water	10/01/25 15:50	10/03/25 16:45	Iowa
310-317210-18	DP03-GW-1025	Water	10/02/25 00:00	10/03/25 16:45	Iowa
310-317210-19	DP04-GW-1025	Water	10/01/25 00:00	10/03/25 16:45	Iowa
310-317210-20	MW156D-GW-1025	Water	10/02/25 10:05	10/03/25 16:45	Iowa
310-317210-21	MW227D-GW-1025	Water	10/01/25 19:00	10/03/25 16:45	Iowa

Detection Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW105-GW-1025 — Lab Sample ID: 310-317210-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	33.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	181		5.00		mg/L	5		9056A	Total/NA
Boron	0.213		0.100		mg/L	1		6020B	Total/NA
Calcium	187		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	898		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW108-GW-1025 — Lab Sample ID: 310-317210-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20.8		5.00		mg/L	5		9056A	Total/NA
Boron	0.190		0.100		mg/L	1		6020B	Total/NA
Calcium	139		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	688		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW133-GW-1025 — Lab Sample ID: 310-317210-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	81.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	185		5.00		mg/L	5		9056A	Total/NA
Boron	0.394		0.100		mg/L	1		6020B	Total/NA
Calcium	184		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	908		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW156-GW-1025 — Lab Sample ID: 310-317210-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	75.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	301		5.00		mg/L	5		9056A	Total/NA
Boron	0.237		0.100		mg/L	1		6020B	Total/NA
Calcium	242		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1130		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW157-GW-1025 — Lab Sample ID: 310-317210-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	55.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	186		5.00		mg/L	5		9056A	Total/NA
Boron	0.296		0.100		mg/L	1		6020B	Total/NA
Calcium	207		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	896		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW158-GW-1025 — Lab Sample ID: 310-317210-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	403		5.00		mg/L	5		9056A	Total/NA
Boron	0.651		0.100		mg/L	1		6020B	Total/NA
Calcium	306		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW158-GW-1025 (Continued) — Lab Sample ID: 310-317210-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1310		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.4	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW159-GW-1025 — Lab Sample ID: 310-317210-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	202		5.00		mg/L	5		9056A	Total/NA
Boron	0.308		0.100		mg/L	1		6020B	Total/NA
Calcium	188		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	850		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW190-GW-1025 — Lab Sample ID: 310-317210-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	246		5.00		mg/L	5		9056A	Total/NA
Boron	0.142		0.100		mg/L	1		6020B	Total/NA
Calcium	158		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	834		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW191-GW-1025 — Lab Sample ID: 310-317210-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	186		5.00		mg/L	5		9056A	Total/NA
Boron	0.150		0.100		mg/L	1		6020B	Total/NA
Calcium	153		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	766		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW227-GW-1025 — Lab Sample ID: 310-317210-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.72		5.00		mg/L	5		9056A	Total/NA
Sulfate	272		5.00		mg/L	5		9056A	Total/NA
Boron	0.140		0.100		mg/L	1		6020B	Total/NA
Calcium	164		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	852		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW240R-GW-1025 — Lab Sample ID: 310-317210-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	206		5.00		mg/L	5		9056A	Total/NA
Boron	0.306		0.100		mg/L	1		6020B	Total/NA
Calcium	143		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	748		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW244-GW-1025 — Lab Sample ID: 310-317210-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	130		5.00		mg/L	5		9056A	Total/NA
Calcium	158		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	812		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW245-GW-1025 — Lab Sample ID: 310-317210-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.59		5.00		mg/L	5		9056A	Total/NA
Sulfate	376		5.00		mg/L	5		9056A	Total/NA
Boron	0.359		0.100		mg/L	1		6020B	Total/NA
Calcium	232		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1280		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW246-GW-1025 — Lab Sample ID: 310-317210-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	71.0		5.00		mg/L	5		9056A	Total/NA
Boron	0.144		0.100		mg/L	1		6020B	Total/NA
Calcium	171		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	820		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW247-GW-1025 — Lab Sample ID: 310-317210-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	130		5.00		mg/L	5		9056A	Total/NA
Boron	0.190		0.100		mg/L	1		6020B	Total/NA
Calcium	157		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	762		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW248-GW-1025 — Lab Sample ID: 310-317210-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	134		5.00		mg/L	5		9056A	Total/NA
Boron	0.224		0.100		mg/L	1		6020B	Total/NA
Calcium	142		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	664		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW250-GW-1025 — Lab Sample ID: 310-317210-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	224		5.00		mg/L	5		9056A	Total/NA
Boron	0.226		0.100		mg/L	1		6020B	Total/NA
Calcium	220		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW250-GW-1025 (Continued)
Lab Sample ID: 310-317210-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	1000		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.5	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP03-GW-1025
Lab Sample ID: 310-317210-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36.0		5.00		mg/L	5		9056A	Total/NA
Sulfate	183		5.00		mg/L	5		9056A	Total/NA
Boron	0.212		0.100		mg/L	1		6020B	Total/NA
Calcium	176		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	888		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP04-GW-1025
Lab Sample ID: 310-317210-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	206		5.00		mg/L	5		9056A	Total/NA
Boron	0.305		0.100		mg/L	1		6020B	Total/NA
Calcium	139		0.500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	766		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW156D-GW-1025
Lab Sample ID: 310-317210-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18.0		5.00		mg/L	5		9056A	Total/NA
Sulfate	357		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.0122		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0685		0.00200		mg/L	1		6020B	Total/NA
Boron	0.244		0.100		mg/L	1		6020B	Total/NA
Calcium	221		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00197		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0855		0.0100		mg/L	1		6020B	Total/NA
Selenium	0.00749		0.00500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	1030		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.6	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW227D-GW-1025
Lab Sample ID: 310-317210-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	223		5.00		mg/L	5		9056A	Total/NA
Barium	0.107		0.00200		mg/L	1		6020B	Total/NA
Boron	0.223		0.100		mg/L	1		6020B	Total/NA
Calcium	181		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0870		0.0100		mg/L	1		6020B	Total/NA
Selenium	0.0417		0.00500		mg/L	1		6020B	Total/NA
Total Dissolved Solids	910		50.0		mg/L	1		SM 2540C	Total/NA
pH	7.7	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW105-GW-1025 Lab Sample ID: 310-317210-1

Date Collected: 10/02/25 07:45 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.7**		5.00		mg/L			10/08/25 14:17	5
Fluoride	<1.00		1.00		mg/L			10/08/25 14:17	5
Sulfate	**181**		5.00		mg/L			10/08/25 14:17	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.213**		0.100		mg/L		10/10/25 09:15	10/15/25 15:11	1
Calcium	**187**		0.500		mg/L		10/10/25 09:15	10/15/25 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**898**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			10/03/25 19:47	1

Client Sample Results

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW108-GW-1025 Lab Sample ID: 310-317210-2

Date Collected: 10/01/25 14:50 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.8**		5.00		mg/L			10/08/25 14:28	5
Fluoride	<1.00		1.00		mg/L			10/08/25 14:28	5
Sulfate	<5.00		5.00		mg/L			10/08/25 14:28	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.190**		0.100		mg/L		10/10/25 09:15	10/17/25 13:25	1
Calcium	**139**		0.500		mg/L		10/10/25 09:15	10/15/25 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**688**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.5**	**HF**	1.0		SU			10/03/25 19:56	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW133-GW-1025
Lab Sample ID: 310-317210-3
Date Collected: 10/01/25 17:20
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.2**		5.00		mg/L			10/08/25 14:39	5
Fluoride	<1.00		1.00		mg/L			10/08/25 14:39	5
Sulfate	**185**		5.00		mg/L			10/08/25 14:39	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.394**		0.100		mg/L		10/10/25 09:15	10/17/25 13:28	1
Calcium	**184**		0.500		mg/L		10/10/25 09:15	10/15/25 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**908**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			10/03/25 20:00	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW156-GW-1025
Lab Sample ID: 310-317210-4
Date Collected: 10/02/25 11:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.7		5.00		mg/L			10/08/25 14:50	5
Fluoride	<1.00		1.00		mg/L			10/08/25 14:50	5
Sulfate	301		5.00		mg/L			10/08/25 14:50	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.237		0.100		mg/L		10/10/25 09:15	10/17/25 13:34	1
Calcium	242		0.500		mg/L		10/10/25 09:15	10/15/25 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1130		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			10/03/25 20:05	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW157-GW-1025
Lab Sample ID: 310-317210-5
Date Collected: 10/02/25 08:40
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.2**		5.00		mg/L			10/08/25 15:01	5
Fluoride	<1.00		1.00		mg/L			10/08/25 15:01	5
Sulfate	**186**		5.00		mg/L			10/08/25 15:01	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.296**		0.100		mg/L		10/10/25 09:15	10/17/25 13:36	1
Calcium	**207**		0.500		mg/L		10/10/25 09:15	10/15/25 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**896**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.4**	**HF**	1.0		SU			10/03/25 20:09	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW158-GW-1025
Lab Sample ID: 310-317210-6
Date Collected: 10/02/25 09:30
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.3**		5.00		mg/L			10/08/25 15:13	5
Fluoride	<1.00		1.00		mg/L			10/08/25 15:13	5
Sulfate	**403**		5.00		mg/L			10/08/25 15:13	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.651**		0.100		mg/L		10/10/25 09:15	10/17/25 13:39	1
Calcium	**306**		0.500		mg/L		10/10/25 09:15	10/15/25 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1310**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.4**	**HF**	1.0		SU			10/03/25 20:13	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW159-GW-1025
Lab Sample ID: 310-317210-7
Date Collected: 10/02/25 10:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.5		5.00		mg/L			10/08/25 15:24	5
Fluoride	<1.00		1.00		mg/L			10/08/25 15:24	5
Sulfate	202		5.00		mg/L			10/08/25 15:24	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.308		0.100		mg/L		10/13/25 08:30	10/14/25 13:15	1
Calcium	188		0.500		mg/L		10/13/25 08:30	10/14/25 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	850		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			10/03/25 20:18	1

Client Sample Results

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW190-GW-1025 Lab Sample ID: 310-317210-8

Date Collected: 10/02/25 10:55 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9		5.00		mg/L			10/09/25 10:19	5
Fluoride	<1.00		1.00		mg/L			10/09/25 10:19	5
Sulfate	246		5.00		mg/L			10/09/25 10:19	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.142		0.100		mg/L		10/13/25 08:30	10/14/25 13:17	1
Calcium	158		0.500		mg/L		10/13/25 08:30	10/14/25 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	834		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			10/03/25 20:22	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW191-GW-1025
Lab Sample ID: 310-317210-9
Date Collected: 10/02/25 12:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2		5.00		mg/L			10/09/25 10:32	5
Fluoride	<1.00		1.00		mg/L			10/09/25 10:32	5
Sulfate	186		5.00		mg/L			10/09/25 10:32	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.150		0.100		mg/L		10/13/25 08:30	10/14/25 13:20	1
Calcium	153		0.500		mg/L		10/13/25 08:30	10/14/25 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	766		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			10/03/25 20:26	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW227-GW-1025
Lab Sample ID: 310-317210-10
Date Collected: 10/01/25 19:30
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.72		5.00		mg/L			10/09/25 10:46	5
Fluoride	<1.00		1.00		mg/L			10/09/25 10:46	5
Sulfate	272		5.00		mg/L			10/09/25 10:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.140		0.100		mg/L		10/13/25 08:30	10/14/25 13:22	1
Calcium	164		0.500		mg/L		10/13/25 08:30	10/14/25 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	852		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			10/03/25 20:38	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW240R-GW-1025
Lab Sample ID: 310-317210-11
Date Collected: 10/01/25 17:30
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.00		mg/L			10/09/25 10:59	5
Fluoride	<1.00		1.00		mg/L			10/09/25 10:59	5
Sulfate	206		5.00		mg/L			10/09/25 10:59	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.306		0.100		mg/L		10/13/25 08:30	10/14/25 13:25	1
Calcium	143		0.500		mg/L		10/13/25 08:30	10/14/25 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	748		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			10/03/25 20:43	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW244-GW-1025
Lab Sample ID: 310-317210-12
Date Collected: 10/01/25 18:50
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.7**		5.00		mg/L			10/09/25 11:13	5
Fluoride	<1.00		1.00		mg/L			10/09/25 11:13	5
Sulfate	**130**		5.00		mg/L			10/09/25 11:13	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		10/13/25 08:30	10/14/25 13:27	1
Calcium	**158**		0.500		mg/L		10/13/25 08:30	10/14/25 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**812**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			10/03/25 20:51	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW245-GW-1025
Lab Sample ID: 310-317210-13
Date Collected: 10/02/25 12:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.59		5.00		mg/L			10/09/25 11:27	5
Fluoride	<1.00		1.00		mg/L			10/09/25 11:27	5
Sulfate	376		5.00		mg/L			10/09/25 11:27	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.359		0.100		mg/L		10/13/25 08:30	10/14/25 13:30	1
Calcium	232		0.500		mg/L		10/13/25 08:30	10/14/25 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1280		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			10/03/25 20:56	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW246-GW-1025
Lab Sample ID: 310-317210-14
Date Collected: 10/02/25 07:45
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.7		5.00		mg/L			10/09/25 12:35	5
Fluoride	<1.00		1.00		mg/L			10/09/25 12:35	5
Sulfate	71.0		5.00		mg/L			10/09/25 12:35	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.144		0.100		mg/L		10/13/25 08:30	10/14/25 13:45	1
Calcium	171		0.500		mg/L		10/13/25 08:30	10/14/25 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	820		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			10/03/25 21:04	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW247-GW-1025
Lab Sample ID: 310-317210-15

Date Collected: 10/02/25 08:15
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.5**		5.00		mg/L			10/09/25 12:48	5
Fluoride	<1.00		1.00		mg/L			10/09/25 12:48	5
Sulfate	**130**		5.00		mg/L			10/09/25 12:48	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.190**		0.100		mg/L		10/13/25 08:30	10/14/25 13:48	1
Calcium	**157**		0.500		mg/L		10/13/25 08:30	10/14/25 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**762**		50.0		mg/L			10/07/25 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			10/03/25 21:08	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW248-GW-1025
Lab Sample ID: 310-317210-16
Date Collected: 10/02/25 09:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.6		5.00		mg/L			10/09/25 13:02	5
Fluoride	<1.00		1.00		mg/L			10/09/25 13:02	5
Sulfate	134		5.00		mg/L			10/09/25 13:02	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.224		0.100		mg/L		10/13/25 08:30	10/14/25 13:50	1
Calcium	142		0.500		mg/L		10/13/25 08:30	10/14/25 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	664		50.0		mg/L			10/07/25 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			10/03/25 21:13	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW250-GW-1025
Lab Sample ID: 310-317210-17
Date Collected: 10/01/25 15:50
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.9		5.00		mg/L			10/09/25 13:15	5
Fluoride	<1.00		1.00		mg/L			10/09/25 13:15	5
Sulfate	224		5.00		mg/L			10/09/25 13:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.226		0.100		mg/L		10/13/25 08:30	10/14/25 13:53	1
Calcium	220		0.500		mg/L		10/13/25 08:30	10/14/25 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.5	HF	1.0		SU			10/03/25 21:17	1

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: DP03-GW-1025 **Lab Sample ID: 310-317210-18**
Date Collected: 10/02/25 00:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.0		5.00		mg/L			10/09/25 13:29	5
Fluoride	<1.00		1.00		mg/L			10/09/25 13:29	5
Sulfate	183		5.00		mg/L			10/09/25 13:29	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.212		0.100		mg/L		10/13/25 08:30	10/14/25 13:58	1
Calcium	176		0.500		mg/L		10/13/25 08:30	10/14/25 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	888		50.0		mg/L			10/07/25 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.6	HF	1.0		SU			10/03/25 21:28	1

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: DP04-GW-1025
Lab Sample ID: 310-317210-19
Date Collected: 10/01/25 00:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.00		mg/L			10/09/25 13:43	5
Fluoride	<1.00		1.00		mg/L			10/09/25 13:43	5
Sulfate	206		5.00		mg/L			10/09/25 13:43	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.305		0.100		mg/L		10/13/25 08:30	10/14/25 14:01	1
Calcium	139		0.500		mg/L		10/13/25 08:30	10/14/25 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	766		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.7	HF	1.0		SU			10/03/25 21:33	1

Client Sample ID: MW156D-GW-1025 Lab Sample ID: 310-317210-20

Date Collected: 10/02/25 10:05 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.0**		5.00		mg/L			10/09/25 13:56	5
Fluoride	<1.00		1.00		mg/L			10/09/25 13:56	5
Sulfate	**357**		5.00		mg/L			10/09/25 13:56	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	^1+	0.00200		mg/L		10/13/25 08:30	10/14/25 14:03	1
Arsenic	**0.0122**		0.00200		mg/L		10/13/25 08:30	10/14/25 14:03	1
Barium	**0.0685**		0.00200		mg/L		10/13/25 08:30	10/14/25 14:03	1
Beryllium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 14:03	1
Boron	**0.244**		0.100		mg/L		10/13/25 08:30	10/14/25 14:03	1
Cadmium	<0.000200		0.000200		mg/L		10/13/25 08:30	10/14/25 14:03	1
Calcium	**221**		0.500		mg/L		10/13/25 08:30	10/14/25 14:03	1
Chromium	<0.00500		0.00500		mg/L		10/13/25 08:30	10/14/25 14:03	1
Cobalt	**0.00197**		0.000500		mg/L		10/13/25 08:30	10/14/25 14:03	1
Lithium	**0.0855**		0.0100		mg/L		10/13/25 08:30	10/14/25 14:03	1
Lead	<0.000500		0.000500		mg/L		10/13/25 08:30	10/14/25 14:03	1
Molybdenum	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 14:03	1
Selenium	**0.00749**		0.00500		mg/L		10/13/25 08:30	10/14/25 14:03	1
Thallium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 14:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/13/25 14:00	10/14/25 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1030**		50.0		mg/L			10/07/25 14:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.6**	**HF**	1.0		SU			10/03/25 21:41	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.266	U	0.279	0.280	1.00	0.448	pCi/L	10/07/25 15:43	11/04/25 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.6*		*30 - 110*	*10/07/25 15:43*	*11/04/25 14:52*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.834**		0.401	0.408	1.00	0.552	pCi/L	10/07/25 15:46	11/04/25 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89.6*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:46*	*1*
Y Carrier	*83.0*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:46*	*1*

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW156D-GW-1025
Lab Sample ID: 310-317210-20
Date Collected: 10/02/25 10:05
Matrix: Water
Date Received: 10/03/25 16:45

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.489	0.495	5.00	0.552	pCi/L		11/05/25 09:35	1

Client Sample ID: MW227D-GW-1025 Lab Sample ID: 310-317210-21

Date Collected: 10/01/25 19:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.9**		5.00		mg/L			10/09/25 14:10	5
Fluoride	<1.00		1.00		mg/L			10/09/25 14:10	5
Sulfate	**223**		5.00		mg/L			10/09/25 14:10	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	^1+	0.00200		mg/L		10/13/25 08:30	10/14/25 14:11	1
Arsenic	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 14:11	1
Barium	**0.107**		0.00200		mg/L		10/13/25 08:30	10/14/25 14:11	1
Beryllium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 14:11	1
Boron	**0.223**		0.100		mg/L		10/13/25 08:30	10/15/25 13:28	1
Cadmium	<0.000200		0.000200		mg/L		10/13/25 08:30	10/14/25 14:11	1
Calcium	**181**		0.500		mg/L		10/13/25 08:30	10/14/25 14:11	1
Chromium	<0.00500		0.00500		mg/L		10/13/25 08:30	10/14/25 14:11	1
Cobalt	<0.000500		0.000500		mg/L		10/13/25 08:30	10/14/25 14:11	1
Lithium	**0.0870**		0.0100		mg/L		10/13/25 08:30	10/14/25 14:11	1
Lead	<0.000500		0.000500		mg/L		10/13/25 08:30	10/14/25 14:11	1
Molybdenum	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 14:11	1
Selenium	**0.0417**		0.00500		mg/L		10/13/25 08:30	10/14/25 14:11	1
Thallium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 14:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/13/25 14:00	10/14/25 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**910**		50.0		mg/L			10/06/25 13:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	**7.7**	**HF**	1.0		SU			10/03/25 21:50	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.767**		0.416	0.422	1.00	0.534	pCi/L	10/07/25 15:43	11/04/25 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*80.3*		*30 - 110*	*10/07/25 15:43*	*11/04/25 14:52*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.42**		0.785	0.815	1.00	0.973	pCi/L	10/07/25 15:46	11/04/25 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*80.3*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:46*	*1*
Y Carrier	*77.8*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:46*	*1*

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW227D-GW-1025
Lab Sample ID: 310-317210-21

Date Collected: 10/01/25 19:00
Matrix: Water
Date Received: 10/03/25 16:45

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.19		0.888	0.918	5.00	0.973	pCi/L		11/05/25 09:35	1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-469438/3
Matrix: Water
Analysis Batch: 469438

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			10/08/25 10:24	1
Fluoride	<0.200		0.200		mg/L			10/08/25 10:24	1
Sulfate	<1.00		1.00		mg/L			10/08/25 10:24	1

Lab Sample ID: LCS 310-469438/4
Matrix: Water
Analysis Batch: 469438

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.448		mg/L		94	90 - 110
Fluoride	2.00	2.037		mg/L		102	90 - 110
Sulfate	10.0	10.06		mg/L		101	90 - 110

Lab Sample ID: MB 310-469624/3
Matrix: Water
Analysis Batch: 469624

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			10/09/25 09:52	1
Fluoride	<0.200		0.200		mg/L			10/09/25 09:52	1
Sulfate	<1.00		1.00		mg/L			10/09/25 09:52	1

Lab Sample ID: LCS 310-469624/4
Matrix: Water
Analysis Batch: 469624

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.39		mg/L		104	90 - 110
Fluoride	2.00	2.122		mg/L		106	90 - 110
Sulfate	10.0	10.48		mg/L		105	90 - 110

Lab Sample ID: 310-317210-13 MS
Matrix: Water
Analysis Batch: 469624

Client Sample ID: MW245-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.59		25.0	31.72		mg/L		93	80 - 120
Fluoride	<1.00		5.00	5.439		mg/L		109	80 - 120
Sulfate	376		25.0	394.1	4	mg/L		72	80 - 120

Lab Sample ID: 310-317210-13 MSD
Matrix: Water
Analysis Batch: 469624

Client Sample ID: MW245-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.59		25.0	31.56		mg/L		92	80 - 120	0	15
Fluoride	<1.00		5.00	5.413		mg/L		108	80 - 120	0	15
Sulfate	376		25.0	387.7	4	mg/L		46	80 - 120	2	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-469477/1-A
Matrix: Water
Analysis Batch: 470282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		10/10/25 09:15	10/15/25 14:32	1
Calcium	<0.500		0.500		mg/L		10/10/25 09:15	10/15/25 14:32	1

Lab Sample ID: LCS 310-469477/2-A
Matrix: Water
Analysis Batch: 470282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.1856		mg/L		93	80 - 120
Calcium	2.00	1.633		mg/L		82	80 - 120

Lab Sample ID: 310-317210-3 DU
Matrix: Water
Analysis Batch: 470282

Client Sample ID: MW133-GW-1025
Prep Type: Total/NA
Prep Batch: 469477

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	184		188.8		mg/L		3	20

Lab Sample ID: 310-317210-3 DU
Matrix: Water
Analysis Batch: 470466

Client Sample ID: MW133-GW-1025
Prep Type: Total/NA
Prep Batch: 469477

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	0.394		0.3955		mg/L		0.3	20

Lab Sample ID: MB 310-469675/1-A
Matrix: Water
Analysis Batch: 470085

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	^1+	0.00200		mg/L		10/13/25 08:30	10/14/25 13:10	1
Arsenic	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 13:10	1
Barium	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 13:10	1
Beryllium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 13:10	1
Boron	<0.100		0.100		mg/L		10/13/25 08:30	10/14/25 13:10	1
Cadmium	<0.000200		0.000200		mg/L		10/13/25 08:30	10/14/25 13:10	1
Calcium	<0.500		0.500		mg/L		10/13/25 08:30	10/14/25 13:10	1
Chromium	<0.00500		0.00500		mg/L		10/13/25 08:30	10/14/25 13:10	1
Cobalt	<0.000500		0.000500		mg/L		10/13/25 08:30	10/14/25 13:10	1
Lithium	<0.0100		0.0100		mg/L		10/13/25 08:30	10/14/25 13:10	1
Lead	<0.000500		0.000500		mg/L		10/13/25 08:30	10/14/25 13:10	1
Molybdenum	<0.00200		0.00200		mg/L		10/13/25 08:30	10/14/25 13:10	1
Selenium	<0.00500		0.00500		mg/L		10/13/25 08:30	10/14/25 13:10	1
Thallium	<0.00100		0.00100		mg/L		10/13/25 08:30	10/14/25 13:10	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-469675/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 470085
Prep Batch: 469675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2206	^1+	mg/L		110	80 - 120
Arsenic	0.200	0.2038		mg/L		102	80 - 120
Barium	0.100	0.1009		mg/L		101	80 - 120
Beryllium	0.100	0.1059		mg/L		106	80 - 120
Boron	0.200	0.2224		mg/L		111	80 - 120
Cadmium	0.100	0.09902		mg/L		99	80 - 120
Calcium	2.00	1.825		mg/L		91	80 - 120
Chromium	0.100	0.1033		mg/L		103	80 - 120
Cobalt	0.100	0.1015		mg/L		102	80 - 120
Lithium	0.200	0.2035		mg/L		102	80 - 120
Lead	0.200	0.2062		mg/L		103	80 - 120
Molybdenum	0.200	0.2021		mg/L		101	80 - 120
Selenium	0.400	0.3882		mg/L		97	80 - 120
Thallium	0.100	0.1006		mg/L		101	80 - 120

Lab Sample ID: 310-317210-13 MS
Client Sample ID: MW245-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 470085
Prep Batch: 469675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.359		0.200	0.5918		mg/L		116	75 - 125
Calcium	232		2.00	233.7	4	mg/L		88	75 - 125

Lab Sample ID: 310-317210-13 MSD
Client Sample ID: MW245-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 470085
Prep Batch: 469675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.359		0.200	0.5896		mg/L		115	75 - 125	0	20
Calcium	232		2.00	236.1	4	mg/L		210	75 - 125	1	20

Lab Sample ID: 310-317210-17 DU
Client Sample ID: MW250-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 470085
Prep Batch: 469675

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0646		0.06100		mg/L		6	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Boron	0.226		0.2174		mg/L		4	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Calcium	220		212.1		mg/L		4	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	<0.000500		<0.000500		mg/L		NC	20
Lithium	0.117		0.1121		mg/L		4	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Molybdenum	<0.00200		<0.00200		mg/L		NC	20
Selenium	0.0247		0.02321		mg/L		6	20
Thallium	<0.00100		<0.00100		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-469836/1-A
Matrix: Water
Analysis Batch: 470082

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 469836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		10/13/25 14:00	10/14/25 12:03	1

Lab Sample ID: LCS 310-469836/2-A
Matrix: Water
Analysis Batch: 470082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 469836

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001675		mg/L		101	80 - 120		

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

Lab Sample ID: MB 310-469044/1
Matrix: Water
Analysis Batch: 469044

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			10/06/25 13:39	1

Lab Sample ID: LCS 310-469044/2
Matrix: Water
Analysis Batch: 469044

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	982.0		mg/L		98	89 - 110		

Lab Sample ID: 310-317210-13 DU
Matrix: Water
Analysis Batch: 469044

Client Sample ID: MW245-GW-1025
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1280			1214		mg/L				5	13

Lab Sample ID: MB 310-469195/1
Matrix: Water
Analysis Batch: 469195

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			10/07/25 14:18	1

Lab Sample ID: LCS 310-469195/2
Matrix: Water
Analysis Batch: 469195

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	998.0		mg/L		100	89 - 110		

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

Lab Sample ID: 310-317210-15 DU
Client Sample ID: MW247-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 469195

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	762			752.0		mg/L				1	13

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-468917/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.0		SU		101	98 - 102		

Lab Sample ID: LCS 310-468917/29
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
pH			7.00	7.1		SU		101	98 - 102		

Lab Sample ID: 310-317210-1 DU
Client Sample ID: MW105-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5	HF		7.5		SU				0.1	20

Lab Sample ID: 310-317210-11 DU
Client Sample ID: MW240R-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	HF		7.7		SU				0.2	20

Lab Sample ID: 310-317210-13 DU
Client Sample ID: MW245-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	HF		7.5		SU				0.07	20

Lab Sample ID: 310-317210-20 DU
Client Sample ID: MW156D-GW-1025
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 468917

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	HF		7.6		SU				0.4	20

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-739582/1-A
Matrix: Water
Analysis Batch: 743689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739582

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01697	U	0.204	0.204	1.00	0.414	pCi/L	10/07/25 15:43	11/04/25 14:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.8*		*30 - 110*	*10/07/25 15:43*	*11/04/25 14:51*	*1*

Lab Sample ID: LCS 160-739582/2-A
Matrix: Water
Analysis Batch: 743689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739582

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	8.677		1.22	1.00	0.373	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*84.6*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-739583/1-A
Matrix: Water
Analysis Batch: 743685

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 739583

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2965	U	0.397	0.398	1.00	0.664	pCi/L	10/07/25 15:46	11/04/25 11:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*84.8*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:44*	*1*
Y Carrier	*82.2*		*30 - 110*	*10/07/25 15:46*	*11/04/25 11:44*	*1*

Lab Sample ID: LCS 160-739583/2-A
Matrix: Water
Analysis Batch: 743685

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 739583

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.96	9.382		1.32	1.00	0.570	pCi/L	118	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Barium	*84.6*		*30 - 110*
Y Carrier	*80.4*		*30 - 110*

QC Association Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

HPLC/IC

Analysis Batch: 469438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-1	MW105-GW-1025	Total/NA	Water	9056A	
310-317210-2	MW108-GW-1025	Total/NA	Water	9056A	
310-317210-3	MW133-GW-1025	Total/NA	Water	9056A	
310-317210-4	MW156-GW-1025	Total/NA	Water	9056A	
310-317210-5	MW157-GW-1025	Total/NA	Water	9056A	
310-317210-6	MW158-GW-1025	Total/NA	Water	9056A	
310-317210-7	MW159-GW-1025	Total/NA	Water	9056A	
MB 310-469438/3	Method Blank	Total/NA	Water	9056A	
LCS 310-469438/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 469624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-8	MW190-GW-1025	Total/NA	Water	9056A	
310-317210-9	MW191-GW-1025	Total/NA	Water	9056A	
310-317210-10	MW227-GW-1025	Total/NA	Water	9056A	
310-317210-11	MW240R-GW-1025	Total/NA	Water	9056A	
310-317210-12	MW244-GW-1025	Total/NA	Water	9056A	
310-317210-13	MW245-GW-1025	Total/NA	Water	9056A	
310-317210-14	MW246-GW-1025	Total/NA	Water	9056A	
310-317210-15	MW247-GW-1025	Total/NA	Water	9056A	
310-317210-16	MW248-GW-1025	Total/NA	Water	9056A	
310-317210-17	MW250-GW-1025	Total/NA	Water	9056A	
310-317210-18	DP03-GW-1025	Total/NA	Water	9056A	
310-317210-19	DP04-GW-1025	Total/NA	Water	9056A	
310-317210-20	MW156D-GW-1025	Total/NA	Water	9056A	
310-317210-21	MW227D-GW-1025	Total/NA	Water	9056A	
MB 310-469624/3	Method Blank	Total/NA	Water	9056A	
LCS 310-469624/4	Lab Control Sample	Total/NA	Water	9056A	
310-317210-13 MS	MW245-GW-1025	Total/NA	Water	9056A	
310-317210-13 MSD	MW245-GW-1025	Total/NA	Water	9056A	

Metals

Prep Batch: 469477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-1	MW105-GW-1025	Total/NA	Water	3005A	
310-317210-2	MW108-GW-1025	Total/NA	Water	3005A	
310-317210-3	MW133-GW-1025	Total/NA	Water	3005A	
310-317210-4	MW156-GW-1025	Total/NA	Water	3005A	
310-317210-5	MW157-GW-1025	Total/NA	Water	3005A	
310-317210-6	MW158-GW-1025	Total/NA	Water	3005A	
MB 310-469477/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-469477/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-317210-3 DU	MW133-GW-1025	Total/NA	Water	3005A	

Prep Batch: 469675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-7	MW159-GW-1025	Total/NA	Water	3005A	
310-317210-8	MW190-GW-1025	Total/NA	Water	3005A	
310-317210-9	MW191-GW-1025	Total/NA	Water	3005A	
310-317210-10	MW227-GW-1025	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 469675 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-11	MW240R-GW-1025	Total/NA	Water	3005A	
310-317210-12	MW244-GW-1025	Total/NA	Water	3005A	
310-317210-13	MW245-GW-1025	Total/NA	Water	3005A	
310-317210-14	MW246-GW-1025	Total/NA	Water	3005A	
310-317210-15	MW247-GW-1025	Total/NA	Water	3005A	
310-317210-16	MW248-GW-1025	Total/NA	Water	3005A	
310-317210-17	MW250-GW-1025	Total/NA	Water	3005A	
310-317210-18	DP03-GW-1025	Total/NA	Water	3005A	
310-317210-19	DP04-GW-1025	Total/NA	Water	3005A	
310-317210-20	MW156D-GW-1025	Total/NA	Water	3005A	
310-317210-21	MW227D-GW-1025	Total/NA	Water	3005A	
MB 310-469675/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-469675/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-317210-13 MS	MW245-GW-1025	Total/NA	Water	3005A	
310-317210-13 MSD	MW245-GW-1025	Total/NA	Water	3005A	
310-317210-17 DU	MW250-GW-1025	Total/NA	Water	3005A	

Prep Batch: 469836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-20	MW156D-GW-1025	Total/NA	Water	7470A	
310-317210-21	MW227D-GW-1025	Total/NA	Water	7470A	
MB 310-469836/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-469836/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 470082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-20	MW156D-GW-1025	Total/NA	Water	7470A	469836
310-317210-21	MW227D-GW-1025	Total/NA	Water	7470A	469836
MB 310-469836/1-A	Method Blank	Total/NA	Water	7470A	469836
LCS 310-469836/2-A	Lab Control Sample	Total/NA	Water	7470A	469836

Analysis Batch: 470085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-7	MW159-GW-1025	Total/NA	Water	6020B	469675
310-317210-8	MW190-GW-1025	Total/NA	Water	6020B	469675
310-317210-9	MW191-GW-1025	Total/NA	Water	6020B	469675
310-317210-10	MW227-GW-1025	Total/NA	Water	6020B	469675
310-317210-11	MW240R-GW-1025	Total/NA	Water	6020B	469675
310-317210-12	MW244-GW-1025	Total/NA	Water	6020B	469675
310-317210-13	MW245-GW-1025	Total/NA	Water	6020B	469675
310-317210-14	MW246-GW-1025	Total/NA	Water	6020B	469675
310-317210-15	MW247-GW-1025	Total/NA	Water	6020B	469675
310-317210-16	MW248-GW-1025	Total/NA	Water	6020B	469675
310-317210-17	MW250-GW-1025	Total/NA	Water	6020B	469675
310-317210-18	DP03-GW-1025	Total/NA	Water	6020B	469675
310-317210-19	DP04-GW-1025	Total/NA	Water	6020B	469675
310-317210-20	MW156D-GW-1025	Total/NA	Water	6020B	469675
310-317210-21	MW227D-GW-1025	Total/NA	Water	6020B	469675
MB 310-469675/1-A	Method Blank	Total/NA	Water	6020B	469675
LCS 310-469675/2-A	Lab Control Sample	Total/NA	Water	6020B	469675
310-317210-13 MS	MW245-GW-1025	Total/NA	Water	6020B	469675

Metals (Continued)

Analysis Batch: 470085 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-13 MSD	MW245-GW-1025	Total/NA	Water	6020B	469675
310-317210-17 DU	MW250-GW-1025	Total/NA	Water	6020B	469675

Analysis Batch: 470251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-21	MW227D-GW-1025	Total/NA	Water	6020B	469675

Analysis Batch: 470282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-1	MW105-GW-1025	Total/NA	Water	6020B	469477
310-317210-2	MW108-GW-1025	Total/NA	Water	6020B	469477
310-317210-3	MW133-GW-1025	Total/NA	Water	6020B	469477
310-317210-4	MW156-GW-1025	Total/NA	Water	6020B	469477
310-317210-5	MW157-GW-1025	Total/NA	Water	6020B	469477
310-317210-6	MW158-GW-1025	Total/NA	Water	6020B	469477
MB 310-469477/1-A	Method Blank	Total/NA	Water	6020B	469477
LCS 310-469477/2-A	Lab Control Sample	Total/NA	Water	6020B	469477
310-317210-3 DU	MW133-GW-1025	Total/NA	Water	6020B	469477

Analysis Batch: 470466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-2	MW108-GW-1025	Total/NA	Water	6020B	469477
310-317210-3	MW133-GW-1025	Total/NA	Water	6020B	469477
310-317210-4	MW156-GW-1025	Total/NA	Water	6020B	469477
310-317210-5	MW157-GW-1025	Total/NA	Water	6020B	469477
310-317210-6	MW158-GW-1025	Total/NA	Water	6020B	469477
310-317210-3 DU	MW133-GW-1025	Total/NA	Water	6020B	469477

General Chemistry

Analysis Batch: 468917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-1	MW105-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-2	MW108-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-3	MW133-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-4	MW156-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-5	MW157-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-6	MW158-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-7	MW159-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-8	MW190-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-9	MW191-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-10	MW227-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-11	MW240R-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-12	MW244-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-13	MW245-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-14	MW246-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-15	MW247-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-16	MW248-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-17	MW250-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-18	DP03-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-19	DP04-GW-1025	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 468917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-20	MW156D-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-21	MW227D-GW-1025	Total/NA	Water	SM 4500 H+ B	
LCS 310-468917/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCS 310-468917/29	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
310-317210-1 DU	MW105-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-11 DU	MW240R-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-13 DU	MW245-GW-1025	Total/NA	Water	SM 4500 H+ B	
310-317210-20 DU	MW156D-GW-1025	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 469044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-1	MW105-GW-1025	Total/NA	Water	SM 2540C	
310-317210-2	MW108-GW-1025	Total/NA	Water	SM 2540C	
310-317210-3	MW133-GW-1025	Total/NA	Water	SM 2540C	
310-317210-4	MW156-GW-1025	Total/NA	Water	SM 2540C	
310-317210-5	MW157-GW-1025	Total/NA	Water	SM 2540C	
310-317210-6	MW158-GW-1025	Total/NA	Water	SM 2540C	
310-317210-7	MW159-GW-1025	Total/NA	Water	SM 2540C	
310-317210-8	MW190-GW-1025	Total/NA	Water	SM 2540C	
310-317210-9	MW191-GW-1025	Total/NA	Water	SM 2540C	
310-317210-10	MW227-GW-1025	Total/NA	Water	SM 2540C	
310-317210-11	MW240R-GW-1025	Total/NA	Water	SM 2540C	
310-317210-12	MW244-GW-1025	Total/NA	Water	SM 2540C	
310-317210-13	MW245-GW-1025	Total/NA	Water	SM 2540C	
310-317210-14	MW246-GW-1025	Total/NA	Water	SM 2540C	
310-317210-17	MW250-GW-1025	Total/NA	Water	SM 2540C	
310-317210-19	DP04-GW-1025	Total/NA	Water	SM 2540C	
310-317210-21	MW227D-GW-1025	Total/NA	Water	SM 2540C	
MB 310-469044/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-469044/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-317210-13 DU	MW245-GW-1025	Total/NA	Water	SM 2540C	

Analysis Batch: 469195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-15	MW247-GW-1025	Total/NA	Water	SM 2540C	
310-317210-16	MW248-GW-1025	Total/NA	Water	SM 2540C	
310-317210-18	DP03-GW-1025	Total/NA	Water	SM 2540C	
310-317210-20	MW156D-GW-1025	Total/NA	Water	SM 2540C	
MB 310-469195/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-469195/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-317210-15 DU	MW247-GW-1025	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 739582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-20	MW156D-GW-1025	Total/NA	Water	PrecSep-21	
310-317210-21	MW227D-GW-1025	Total/NA	Water	PrecSep-21	
MB 160-739582/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-739582/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Rad

Prep Batch: 739583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317210-20	MW156D-GW-1025	Total/NA	Water	PrecSep_0	
310-317210-21	MW227D-GW-1025	Total/NA	Water	PrecSep_0	
MB 160-739583/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-739583/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW105-GW-1025 Lab Sample ID: 310-317210-1

Date Collected: 10/02/25 07:45 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 14:17
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:11
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 19:47

Client Sample ID: MW108-GW-1025 Lab Sample ID: 310-317210-2

Date Collected: 10/01/25 14:50 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 14:28
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:18
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470466	NFT2	EET CF	10/17/25 13:25
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 19:56

Client Sample ID: MW133-GW-1025 Lab Sample ID: 310-317210-3

Date Collected: 10/01/25 17:20 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 14:39
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:21
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470466	NFT2	EET CF	10/17/25 13:28
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:00

Client Sample ID: MW156-GW-1025 Lab Sample ID: 310-317210-4

Date Collected: 10/02/25 11:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 14:50
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:26
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470466	NFT2	EET CF	10/17/25 13:34
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:05

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW157-GW-1025 Lab Sample ID: 310-317210-5

Date Collected: 10/02/25 08:40 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 15:01
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:29
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470466	NFT2	EET CF	10/17/25 13:36
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:09

Client Sample ID: MW158-GW-1025 Lab Sample ID: 310-317210-6

Date Collected: 10/02/25 09:30 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 15:13
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470282	NFT2	EET CF	10/15/25 15:31
Total/NA	Prep	3005A			469477	QTZ5	EET CF	10/10/25 09:15
Total/NA	Analysis	6020B		1	470466	NFT2	EET CF	10/17/25 13:39
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:13

Client Sample ID: MW159-GW-1025 Lab Sample ID: 310-317210-7

Date Collected: 10/02/25 10:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469438	QTZ5	EET CF	10/08/25 15:24
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:15
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:18

Client Sample ID: MW190-GW-1025 Lab Sample ID: 310-317210-8

Date Collected: 10/02/25 10:55 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 10:19
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:17
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:22

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW191-GW-1025 Lab Sample ID: 310-317210-9

Date Collected: 10/02/25 12:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 10:32
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:20
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:26

Client Sample ID: MW227-GW-1025 Lab Sample ID: 310-317210-10

Date Collected: 10/01/25 19:30 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 10:46
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:22
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:38

Client Sample ID: MW240R-GW-1025 Lab Sample ID: 310-317210-11

Date Collected: 10/01/25 17:30 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 10:59
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:25
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:43

Client Sample ID: MW244-GW-1025 Lab Sample ID: 310-317210-12

Date Collected: 10/01/25 18:50 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 11:13
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:27
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:51

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW245-GW-1025 Lab Sample ID: 310-317210-13

Date Collected: 10/02/25 12:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 11:27
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:30
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 20:56

Client Sample ID: MW246-GW-1025 Lab Sample ID: 310-317210-14

Date Collected: 10/02/25 07:45 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 12:35
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:45
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:04

Client Sample ID: MW247-GW-1025 Lab Sample ID: 310-317210-15

Date Collected: 10/02/25 08:15 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 12:48
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:48
Total/NA	Analysis	SM 2540C		1	469195	ENB7	EET CF	10/07/25 14:18
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:08

Client Sample ID: MW248-GW-1025 Lab Sample ID: 310-317210-16

Date Collected: 10/02/25 09:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 13:02
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:50
Total/NA	Analysis	SM 2540C		1	469195	ENB7	EET CF	10/07/25 14:18
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:13

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW250-GW-1025 Lab Sample ID: 310-317210-17

Date Collected: 10/01/25 15:50 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 13:15
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:53
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:17

Client Sample ID: DP03-GW-1025 Lab Sample ID: 310-317210-18

Date Collected: 10/02/25 00:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 13:29
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 13:58
Total/NA	Analysis	SM 2540C		1	469195	ENB7	EET CF	10/07/25 14:18
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:28

Client Sample ID: DP04-GW-1025 Lab Sample ID: 310-317210-19

Date Collected: 10/01/25 00:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 13:43
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 14:01
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:33

Client Sample ID: MW156D-GW-1025 Lab Sample ID: 310-317210-20

Date Collected: 10/02/25 10:05 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 13:56
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 14:03
Total/NA	Prep	7470A			469836	RLT9	EET CF	10/13/25 14:00
Total/NA	Analysis	7470A		1	470082	RLT9	EET CF	10/14/25 14:42
Total/NA	Analysis	SM 2540C		1	469195	ENB7	EET CF	10/07/25 14:18
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:41
Total/NA	Prep	PrecSep-21			739582	JTR	EET SL	10/07/25 15:43
Total/NA	Analysis	9315		1	743689	SWS	EET SL	11/04/25 14:52
Total/NA	Prep	PrecSep_0			739583	JTR	EET SL	10/07/25 15:46
Total/NA	Analysis	9320		1	743685	SWS	EET SL	11/04/25 11:46

Lab Chronicle

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Client Sample ID: MW156D-GW-1025 Lab Sample ID: 310-317210-20

Date Collected: 10/02/25 10:05 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Ra226_Ra228		1	743863	SCB	EET SL	11/05/25 09:35

Client Sample ID: MW227D-GW-1025 Lab Sample ID: 310-317210-21

Date Collected: 10/01/25 19:00 **Matrix: Water**
Date Received: 10/03/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	469624	QTZ5	EET CF	10/09/25 14:10
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470085	NFT2	EET CF	10/14/25 14:11
Total/NA	Prep	3005A			469675	QTZ5	EET CF	10/13/25 08:30
Total/NA	Analysis	6020B		1	470251	NFT2	EET CF	10/15/25 13:28
Total/NA	Prep	7470A			469836	RLT9	EET CF	10/13/25 14:00
Total/NA	Analysis	7470A		1	470082	RLT9	EET CF	10/14/25 14:44
Total/NA	Analysis	SM 2540C		1	469044	HE7K	EET CF	10/06/25 13:39
Total/NA	Analysis	SM 4500 H+ B		1	468917	WZC8	EET CF	10/03/25 21:50
Total/NA	Prep	PrecSep-21			739582	JTR	EET SL	10/07/25 15:43
Total/NA	Analysis	9315		1	743689	SWS	EET SL	11/04/25 14:52
Total/NA	Prep	PrecSep_0			739583	JTR	EET SL	10/07/25 15:46
Total/NA	Analysis	9320		1	743685	SWS	EET SL	11/04/25 11:46
Total/NA	Analysis	Ra226_Ra228		1	743863	SCB	EET SL	11/05/25 09:35

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25 *
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25
Oregon	NELAP	4157	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-26
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	11-30-26

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

Method Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
SM 4500 H+ B	pH	SM	EET CF
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

eurofins | Environment Testing America

310-317210 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information				
Client	GHD			
City/State	CITY Des Moines	STATE IA	Project	
Receipt Information				
Date/Time Received.	DATE 10.3.25	TIME 1645	Received By	PH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes* Cooler ID	
Multiple Coolers?	☒ Yes ☐ No	*If yes* Cooler # 1 of 3	
Cooler Custody Seals Present? No	☐ Yes ☒ No	*If yes* Cooler custody seals intact?	☐ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes ☒ No	*If yes* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☒ No	*If yes* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID. CC	Correction Factor (°C) 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.8	Corrected Temp (°C). 2.8

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C)		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes*· Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

317210

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 10.3.25 | TIME 1645 | Received By: pH

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes* Cooler ID

Multiple Coolers? ☑ Yes ☐ No *If yes* Cooler # 2 of 3

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other._____ ☐ NONE

Thermometer ID: CC | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 4.6 | Corrected Temp (°C): 4.6

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C).		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project

Receipt Information

Date/Time Received: DATE 10.3.25 | TIME 1645 | Received By pH

Delivery Type. ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID

Multiple Coolers? ☑ Yes ☐ No *If yes.* Cooler # 3 of 3

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. _____ ☐ NONE

Thermometer ID: CC | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.3 | Corrected Temp (°C): 1.3

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C)		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

EUROFINS
DES MOINES SERVICE CENTER
214

Client Information	Sampler: Brooke ~~Wasson~~ / Paige Richards	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@ET.EurofinsUS.com		Page: 1 of 2
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested			
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd.com	WO #:			
Project Name: MidAmerican WSEC CCR Monofill Monitoring	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Boron and Calcium	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	N		
MW105-GW-1025	10/2/25	0745	G	W	N	N	X	X	X	X	3	
MW108-GW-1025	10/1/25	1450	G	W	N	N	X	X	X	X	3	
MW133-GW-1025	10/1/25	1720	G	W	N	N	X	X	X	X	3	
MW156-GW-1025	10/2/25	1100	G	W	N	N	X	X	X	X	3	
MW157-GW-1025	10/2/25	0840	G	W	N	N	X	X	X	X	3	
MW158-GW-1025	10/2/25	0930	G	W	N	N	X	X	X	X	3	
MW159-GW-1025	10/2/25	1000	G	W	N	N	X	X	X	X	3	
MW190-GW-1025	10/2/25	1055	G	W	N	N	X	X	X	X	3	
MW191-GW-1025	10/2/25	1200	G	W	N	N	X	X	X	X	3	
MW227-GW-1025	10/1/25	1930	G	W	N	N	X	X	X	X	3	
MW240R-GW-1025	10/1/25	1730	G	W	N	N	X	X	X	X	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Paige Richards	10/3/25 1000	GHD	[signature]	10/3/25 1316	Eurofins
2						
3				JR	10/3/25 1615	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Page 57 of 60

11/5/2025

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

EUROFINS
DES MOINES SERVICE CENTER
214

Client Information	Sampler: ~~Brooke Wasson~~/ Paige Richards	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@ET.EurofinsUS.com		Page: 2 of 2
Company: GHD Services Inc.				Job #:

Address: 11228 Aurora Avenue	Due Date Requested:	Analysis Requested
City: Des Moines	TAT Requested (days): Standard	
State, Zip: IA, 50322-7905		
Phone: 515-414-3935	PO #: 340-016858	
Email: Kevin.Armstrong@ghd com	WO #:	
Project Name: MidAmerican WSEC CCR Monofill Monitoring	Eurofins Project #: 31017236	
Project Number: 12592594 DEL.001	SSOW#: 12592594-002	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Boron and Calcium	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH	Rad226/Rad228/Rad228/228 combined	6020A CCR Metals List, 7470A Mercury	2540C TDS	9056A Chloride, Fluoride, Sulfate	SM4500_H+ pH					Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	N	D	D	N	N	N						
MW244-GW-1025	10/1/25	1850	G	W	N	N	X	X	X	X										3	
MW245-GW-1025	10/2/25	1200	G	W	N	Y	X	X	X	X										9	
MW246-GW-1025	10/2/25	0745	G	W	N	N	X	X	X	X										3	
MW247-GW-1025	10/2/25	0815	G	W	N	N	X	X	X	X										3	
MW248-GW-1025	10/2/25	0900	G	W	N	N	X	X	X	X										3	
MW250-GW-1025	10/1/25	1550	G	W	N	N	X	X	X	X										3	
DP03-GW-1025	10/2/25	—	G	W	N	N	X	X	X	X										3	
DP04-GW-1025	10/1/25	—	G	W	N	N	X	X	X	X										3	
MW156D-GW-1025	10/2/25	1005	G	W	N	N					X	X	X	X	X					5	
MW227D-GW-1025	10/1/25	1900	G	W	N	N					X	X	X	X	X					6	
		PR												PR							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements. Database Facility Code GD-MidAmerican-01723

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Paige Richards	10/3/25 1000	GHD		10/3/25 1316	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by: SR	Date/Time: 10/3/25 1645	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-317210-1

Login Number: 317210
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Tracer/Carrier Summary

Client: GHD Services Inc.
Job ID: 310-317210-1
Project/Site: MidAmerican WSEC CCR Monofill Monitoring

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-317210-20	MW156D-GW-1025	89.6
310-317210-21	MW227D-GW-1025	80.3
LCS 160-739582/2-A	Lab Control Sample	84.6
MB 160-739582/1-A	Method Blank	84.8

Tracer/Carrier Legend

Ba = Barium

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-317210-20	MW156D-GW-1025	89.6	83.0
310-317210-21	MW227D-GW-1025	80.3	77.8
LCS 160-739583/2-A	Lab Control Sample	84.6	80.4
MB 160-739583/1-A	Method Blank	84.8	82.2

Tracer/Carrier Legend

Ba = Barium
Y = Y Carrier

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kevin Armstrong
GHD Services Inc
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 12/17/2025 10:19:35 AM

JOB DESCRIPTION

MidAmerican WSEC CCR Monofill
12592594.DEL.001
Monofill

JOB NUMBER

310-322215-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
12/17/2025 10:19:35 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 8
Definitions 19
QC Sample Results 20
QC Association 22
Chronicle 23
Certification Summary 25
Method Summary 26
Chain of Custody 27
Receipt Checklists 29

Job Narrative
310-322215-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 12/11/2025 5:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

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

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

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

Sample Summary

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-322215-1	MW105-GW-1225	Water	12/09/25 15:35	12/11/25 05:30	Iowa
310-322215-2	MW108-GW-1225	Water	12/09/25 15:25	12/11/25 05:30	Iowa
310-322215-3	MW133-GW-1225	Water	12/09/25 16:20	12/11/25 05:30	Iowa
310-322215-4	MW156D-GW-1225	Water	12/09/25 17:40	12/11/25 05:30	Iowa
310-322215-5	MW240R-GW-1225	Water	12/09/25 17:05	12/11/25 05:30	Iowa
310-322215-6	MW244-GW-1225	Water	12/09/25 18:25	12/11/25 05:30	Iowa
310-322215-7	MW245-GW-1225	Water	12/09/25 18:00	12/11/25 05:30	Iowa
310-322215-8	MW247-GW-1225	Water	12/09/25 18:45	12/11/25 05:30	Iowa
310-322215-9	MW248-GW-1225	Water	12/09/25 19:20	12/11/25 05:30	Iowa
310-322215-10	MW250-GW-1225	Water	12/09/25 16:40	12/11/25 05:30	Iowa
310-322215-11	DP01-GW-1225	Water	12/09/25 00:00	12/11/25 05:30	Iowa

Detection Summary

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW105-GW-1225 — Lab Sample ID: 310-322215-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	159		0.500		mg/L	1		6020B	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW108-GW-1225 — Lab Sample ID: 310-322215-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW133-GW-1225 — Lab Sample ID: 310-322215-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW156D-GW-1225 — Lab Sample ID: 310-322215-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	45.8		5.00		mg/L	5		9056A	Total/NA

Client Sample ID: MW240R-GW-1225 — Lab Sample ID: 310-322215-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW244-GW-1225 — Lab Sample ID: 310-322215-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	91.3		5.00		mg/L	5		9056A	Total/NA

Client Sample ID: MW245-GW-1225 — Lab Sample ID: 310-322215-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	383		5.00		mg/L	5		9056A	Total/NA
Calcium	212		0.500		mg/L	1		6020B	Total/NA
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW247-GW-1225 — Lab Sample ID: 310-322215-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW248-GW-1225 — Lab Sample ID: 310-322215-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	118		5.00		mg/L	5		9056A	Total/NA
Boron	0.205		0.100		mg/L	1		6020B	Total/NA

Client Sample ID: MW250-GW-1225 — Lab Sample ID: 310-322215-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.9	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: DP01-GW-1225 — Lab Sample ID: 310-322215-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	366		5.00		mg/L	5		9056A	Total/NA
Calcium	197		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DP01-GW-1225 (Continued)

Lab Sample ID: 310-322215-11

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	1.0		SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW105-GW-1225
Date Collected: 12/09/25 15:35
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	159		0.500		mg/L		12/11/25 14:47	12/15/25 17:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			12/11/25 08:10	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW108-GW-1225
Date Collected: 12/09/25 15:25
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			12/11/25 08:11	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW133-GW-1225
Date Collected: 12/09/25 16:20
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.1	HF	1.0		SU			12/11/25 08:12	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW156D-GW-1225
Date Collected: 12/09/25 17:40
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-4
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.8		5.00		mg/L			12/11/25 13:47	5

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW240R-GW-1225
Date Collected: 12/09/25 17:05
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.2	HF	1.0		SU			12/11/25 08:13	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW244-GW-1225
Date Collected: 12/09/25 18:25
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-6
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	91.3		5.00		mg/L			12/11/25 13:58	5

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW245-GW-1225
Date Collected: 12/09/25 18:00
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-7
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	383		5.00		mg/L			12/11/25 14:10	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	212		0.500		mg/L		12/11/25 14:47	12/15/25 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			12/11/25 08:14	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW247-GW-1225
Date Collected: 12/09/25 18:45
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-8
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			12/11/25 08:15	1

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW248-GW-1225
Date Collected: 12/09/25 19:20
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-9
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	118		5.00		mg/L			12/11/25 14:22	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.205		0.100		mg/L		12/11/25 14:47	12/15/25 17:33	1

Client Sample Results

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW250-GW-1225
Date Collected: 12/09/25 16:40
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-10
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	6.9	HF	1.0		SU			12/11/25 08:16	1

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: DP01-GW-1225
Date Collected: 12/09/25 00:00
Date Received: 12/11/25 05:30

Lab Sample ID: 310-322215-11
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	366		5.00		mg/L			12/15/25 10:39	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	197		0.500		mg/L		12/11/25 14:47	12/15/25 17:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF	1.0		SU			12/11/25 08:17	1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-476300/3
Matrix: Water
Analysis Batch: 476300

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			12/11/25 08:11	1
Sulfate	<1.00		1.00		mg/L			12/11/25 08:11	1

Lab Sample ID: LCS 310-476300/4
Matrix: Water
Analysis Batch: 476300

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.374		mg/L		94	90 - 110
Sulfate	10.0	9.969		mg/L		100	90 - 110

Lab Sample ID: MB 310-476547/3
Matrix: Water
Analysis Batch: 476547

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00		mg/L			12/15/25 10:15	1

Lab Sample ID: LCS 310-476547/4
Matrix: Water
Analysis Batch: 476547

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.458		mg/L		95	90 - 110

Lab Sample ID: 310-322215-11 MS
Matrix: Water
Analysis Batch: 476547

Client Sample ID: DP01-GW-1225
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	366		25.0	380.4	4	mg/L		57	80 - 120

Lab Sample ID: 310-322215-11 MSD
Matrix: Water
Analysis Batch: 476547

Client Sample ID: DP01-GW-1225
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	366		25.0	380.3	4	mg/L		57	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-476214/1-A
Matrix: Water
Analysis Batch: 476532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 476214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		12/11/25 14:47	12/15/25 16:40	1
Calcium	<0.500		0.500		mg/L		12/11/25 14:47	12/15/25 16:40	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-476214/2-A
Matrix: Water
Analysis Batch: 476532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 476214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.1981		mg/L		99	80 - 120
Calcium	2.00	1.831		mg/L		92	80 - 120

Lab Sample ID: 310-322215-7 DU
Matrix: Water
Analysis Batch: 476532

Client Sample ID: MW245-GW-1225
Prep Type: Total/NA
Prep Batch: 476214

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	0.356		0.3403		mg/L		4	20
Calcium	212		203.8		mg/L		4	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 310-476125/29
Matrix: Water
Analysis Batch: 476125

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.1		SU		101	98 - 102

HPLC/IC

Analysis Batch: 476300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322215-4	MW156D-GW-1225	Total/NA	Water	9056A	
310-322215-6	MW244-GW-1225	Total/NA	Water	9056A	
310-322215-7	MW245-GW-1225	Total/NA	Water	9056A	
310-322215-9	MW248-GW-1225	Total/NA	Water	9056A	
MB 310-476300/3	Method Blank	Total/NA	Water	9056A	
LCS 310-476300/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 476547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322215-11	DP01-GW-1225	Total/NA	Water	9056A	
MB 310-476547/3	Method Blank	Total/NA	Water	9056A	
LCS 310-476547/4	Lab Control Sample	Total/NA	Water	9056A	
310-322215-11 MS	DP01-GW-1225	Total/NA	Water	9056A	
310-322215-11 MSD	DP01-GW-1225	Total/NA	Water	9056A	

Metals

Prep Batch: 476214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322215-1	MW105-GW-1225	Total/NA	Water	3005A	
310-322215-7	MW245-GW-1225	Total/NA	Water	3005A	
310-322215-9	MW248-GW-1225	Total/NA	Water	3005A	
310-322215-11	DP01-GW-1225	Total/NA	Water	3005A	
MB 310-476214/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-476214/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-322215-7 DU	MW245-GW-1225	Total/NA	Water	3005A	

Analysis Batch: 476532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322215-1	MW105-GW-1225	Total/NA	Water	6020B	476214
310-322215-7	MW245-GW-1225	Total/NA	Water	6020B	476214
310-322215-9	MW248-GW-1225	Total/NA	Water	6020B	476214
310-322215-11	DP01-GW-1225	Total/NA	Water	6020B	476214
MB 310-476214/1-A	Method Blank	Total/NA	Water	6020B	476214
LCS 310-476214/2-A	Lab Control Sample	Total/NA	Water	6020B	476214
310-322215-7 DU	MW245-GW-1225	Total/NA	Water	6020B	476214

General Chemistry

Analysis Batch: 476125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322215-1	MW105-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-2	MW108-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-3	MW133-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-5	MW240R-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-7	MW245-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-8	MW247-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-10	MW250-GW-1225	Total/NA	Water	SM 4500 H+ B	
310-322215-11	DP01-GW-1225	Total/NA	Water	SM 4500 H+ B	
LCS 310-476125/29	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW105-GW-1225
Lab Sample ID: 310-322215-1
Date Collected: 12/09/25 15:35
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476214	F8JX	EET CF	12/11/25 14:47
Total/NA	Analysis	6020B		1	476532	NFT2	EET CF	12/15/25 17:21
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:10

Client Sample ID: MW108-GW-1225
Lab Sample ID: 310-322215-2
Date Collected: 12/09/25 15:25
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:11

Client Sample ID: MW133-GW-1225
Lab Sample ID: 310-322215-3
Date Collected: 12/09/25 16:20
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:12

Client Sample ID: MW156D-GW-1225
Lab Sample ID: 310-322215-4
Date Collected: 12/09/25 17:40
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	476300	HE7K	EET CF	12/11/25 13:47

Client Sample ID: MW240R-GW-1225
Lab Sample ID: 310-322215-5
Date Collected: 12/09/25 17:05
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:13

Client Sample ID: MW244-GW-1225
Lab Sample ID: 310-322215-6
Date Collected: 12/09/25 18:25
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	476300	HE7K	EET CF	12/11/25 13:58

Client Sample ID: MW245-GW-1225
Lab Sample ID: 310-322215-7
Date Collected: 12/09/25 18:00
Matrix: Water
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	476300	HE7K	EET CF	12/11/25 14:10

Lab Chronicle

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Client Sample ID: MW245-GW-1225

Lab Sample ID: 310-322215-7
Matrix: Water
Date Collected: 12/09/25 18:00
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			476214	F8JX	EET CF	12/11/25 14:47
Total/NA	Analysis	6020B		1	476532	NFT2	EET CF	12/15/25 17:23
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:14

Client Sample ID: MW247-GW-1225

Lab Sample ID: 310-322215-8
Matrix: Water
Date Collected: 12/09/25 18:45
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:15

Client Sample ID: MW248-GW-1225

Lab Sample ID: 310-322215-9
Matrix: Water
Date Collected: 12/09/25 19:20
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	476300	HE7K	EET CF	12/11/25 14:22
Total/NA	Prep	3005A			476214	F8JX	EET CF	12/11/25 14:47
Total/NA	Analysis	6020B		1	476532	NFT2	EET CF	12/15/25 17:33

Client Sample ID: MW250-GW-1225

Lab Sample ID: 310-322215-10
Matrix: Water
Date Collected: 12/09/25 16:40
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:16

Client Sample ID: DP01-GW-1225

Lab Sample ID: 310-322215-11
Matrix: Water
Date Collected: 12/09/25 00:00
Date Received: 12/11/25 05:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	476547	HE7K	EET CF	12/15/25 10:39
Total/NA	Prep	3005A			476214	F8JX	EET CF	12/11/25 14:47
Total/NA	Analysis	6020B		1	476532	NFT2	EET CF	12/15/25 17:36
Total/NA	Analysis	SM 4500 H+ B		1	476125	W9YR	EET CF	12/11/25 08:17

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc
Job ID: 310-322215-1
Project/Site: MidAmerican WSEC CCR Monofill
SDG: 12592594.DEL.001

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25 *

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

Method Summary

Client: GHD Services Inc
Project/Site: MidAmerican WSEC CCR Monofill

Job ID: 310-322215-1
SDG: 12592594.DEL.001

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
SM 4500 H+ B	pH	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

eurofins | Environment Testing America

310-322215 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GHD

City/State: CITY Des Moines | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 12/10/25 | TIME 0530 (1430) | Received By: JJ

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes*: Cooler ID
Multiple Coolers?	☐ Yes	☒ No	*If yes*: Cooler # _____ of _____
Cooler Custody Seals Present? No	☐ Yes	☒ No	*If yes* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE

Thermometer ID: AC | Correction Factor (°C): -0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.3 | Corrected Temp (°C): 1.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used.		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes*: Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

Client Information	Sampler: Brooke Wasson	Lab PM: Zach Bindert	Carrier Tracking No(s):	COC No:
Client Contact: Kevin Armstrong	Phone: 515-414-3933	E-Mail: Zach.Bindert@ET.EurofinsUS.com		Page: 1 of 1
Company: GHD Services Inc.				Job #:
Address: 11228 Aurora Avenue	Due Date Requested			
City: Des Moines	TAT Requested (days): Standard			
State, Zip: IA, 50322-7905				
Phone: 515-414-3935	PO #: 340-016858			
Email: Kevin.Armstrong@ghd com	WO #:			
Project Name: MidAmerican WSEC CCR Monofill	Eurofins Project #: 31017236			
Project Number: 12592594 DEL.001	SSOW#: 12592594-002			

Analysis Requested

Preservation Codes

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 Calcium	6020 Boron	9056A Chloride	9056A Sulfate	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N	N	N		
MW105-GW-1225	12/9/25	1535	G	W	N	N	X				X		
MW108-GW-1225		1525	G	W	N	N					X		
MW133-GW-1225		1620	G	W	N	N					X		
MW156-GW-1225		1740	G	W	N	N			X				
MW240R-GW-1225		1705	G	W	N	N			--		X		
MW244-GW-1225		1825	G	W	N	N				X			
MW245-GW-1225		1800	G	W	N	N	X			X	X		
MW247-GW-1225		1845	G	W	N	N					X		
MW248-GW-1225		1920	G	W	N	N		X		X			
MW250-GW-1225		1640	G	W	N	N					X		
DP01-GW-1225		—	G	W	N	N	X			X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II, III, IV, Other (specify)

Special Instructions/QC Requirements. **Database Facility Code GD-MidAmerican-01723**

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Brooke Wasson	12/10/25	GHD	James Vinyx	12/10/25 1520	
2					/	
3					12/11/25 0550	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc

Job Number: 310-322215-1
SDG Number: 12592594.DEL.001

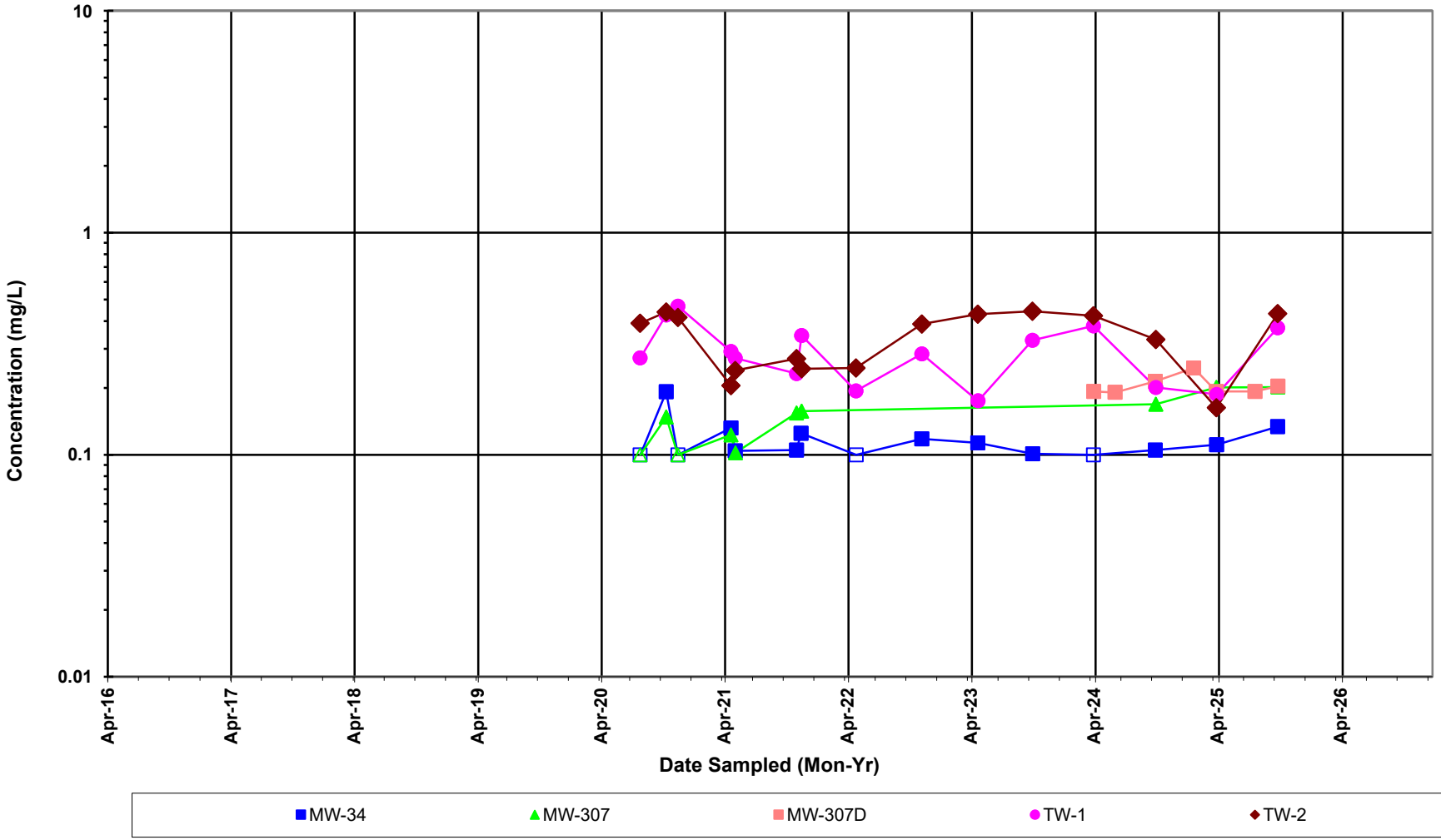
Login Number: 322215
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Appendix C

Time Series Graphs



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

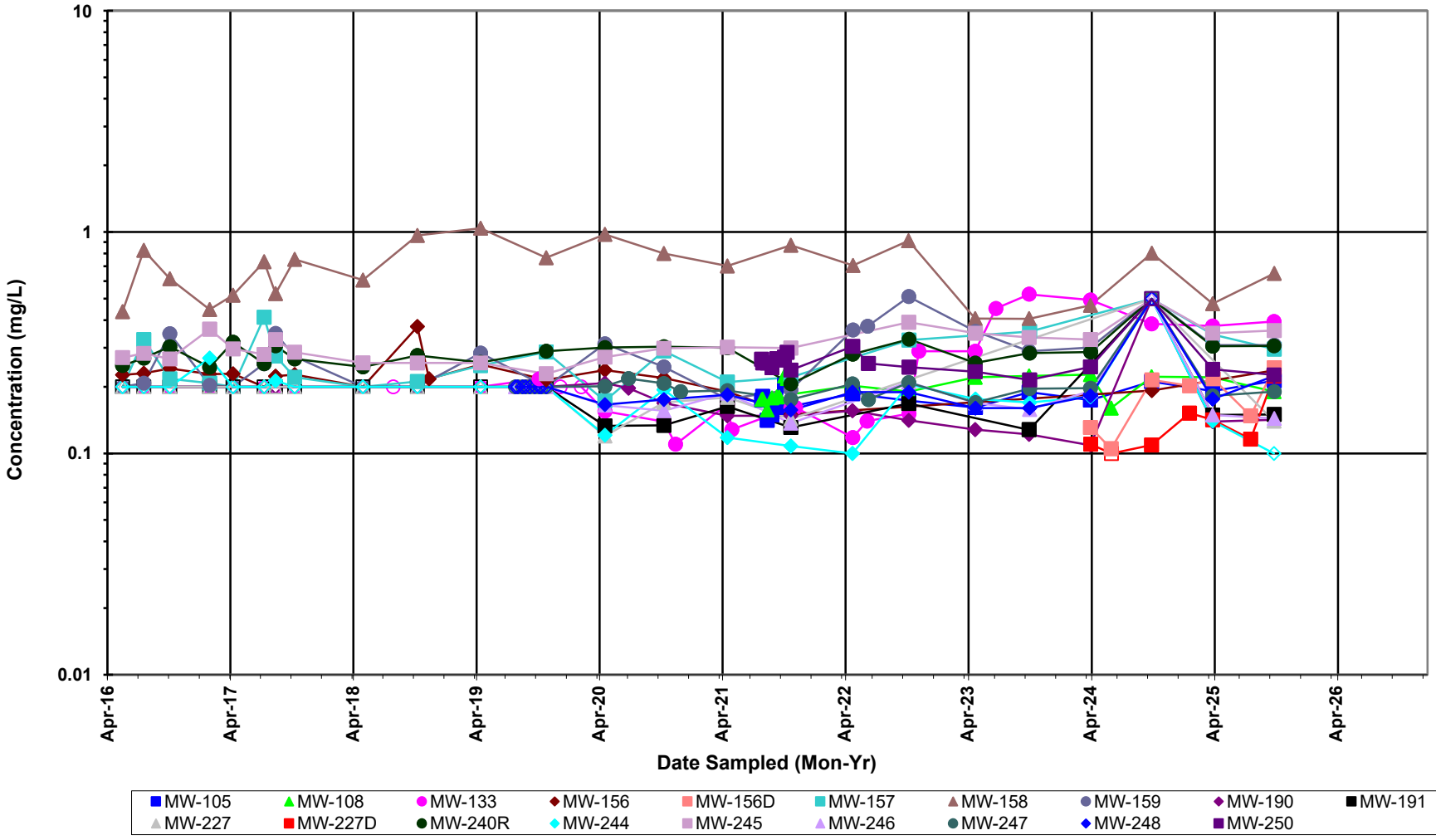
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 1A - BORON - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

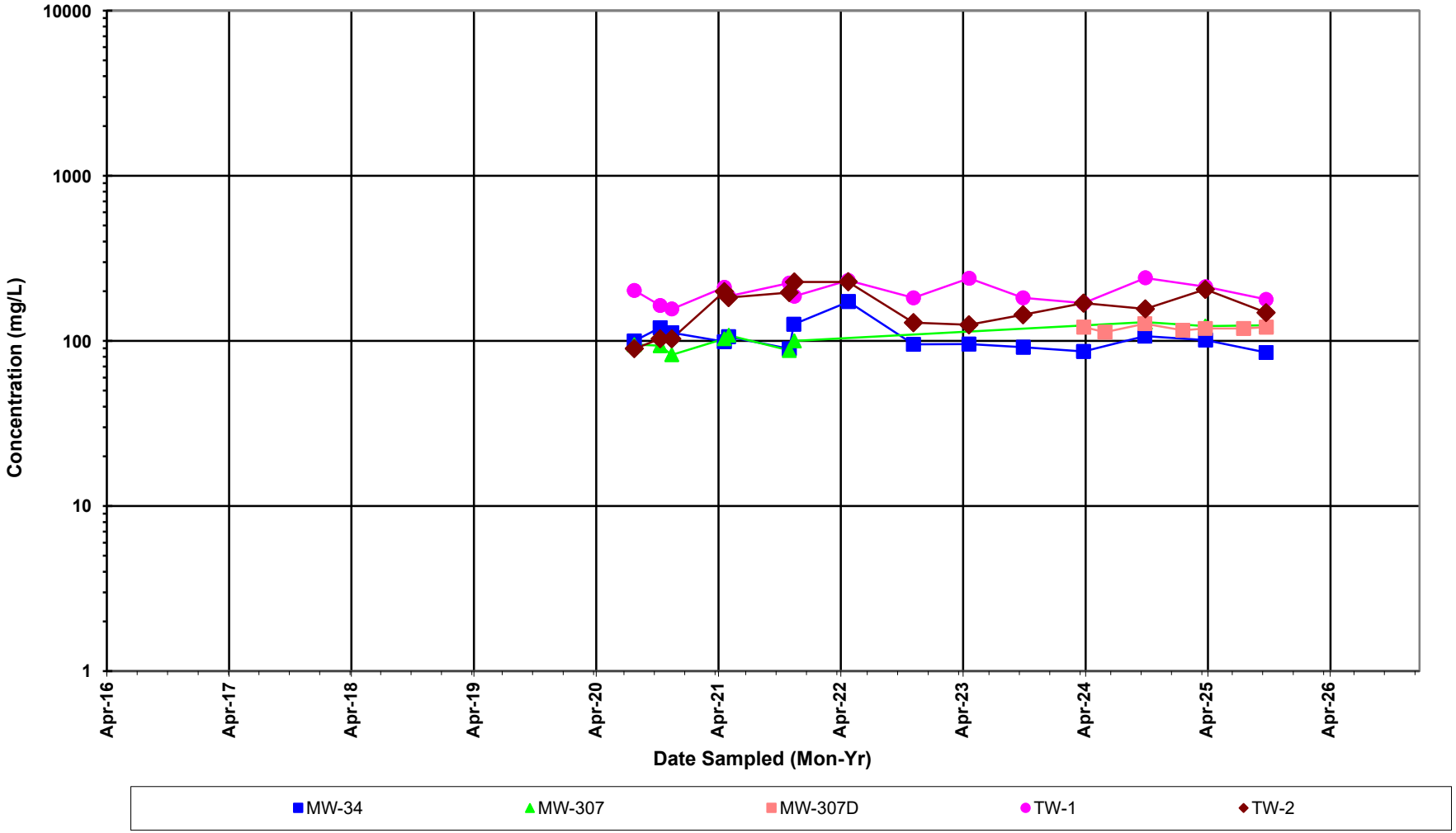
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 1B - BORON - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

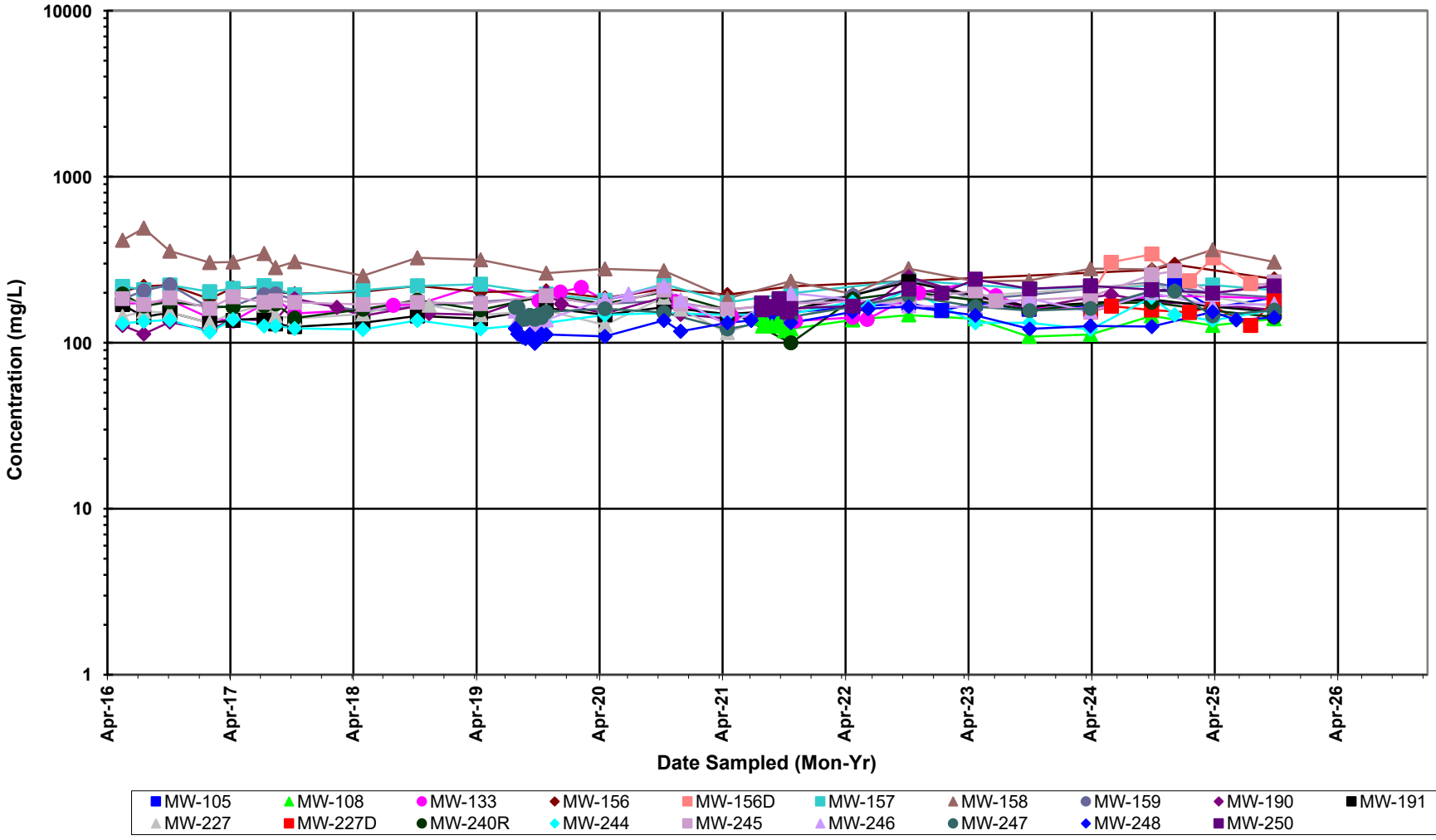
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 2A - CALCIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

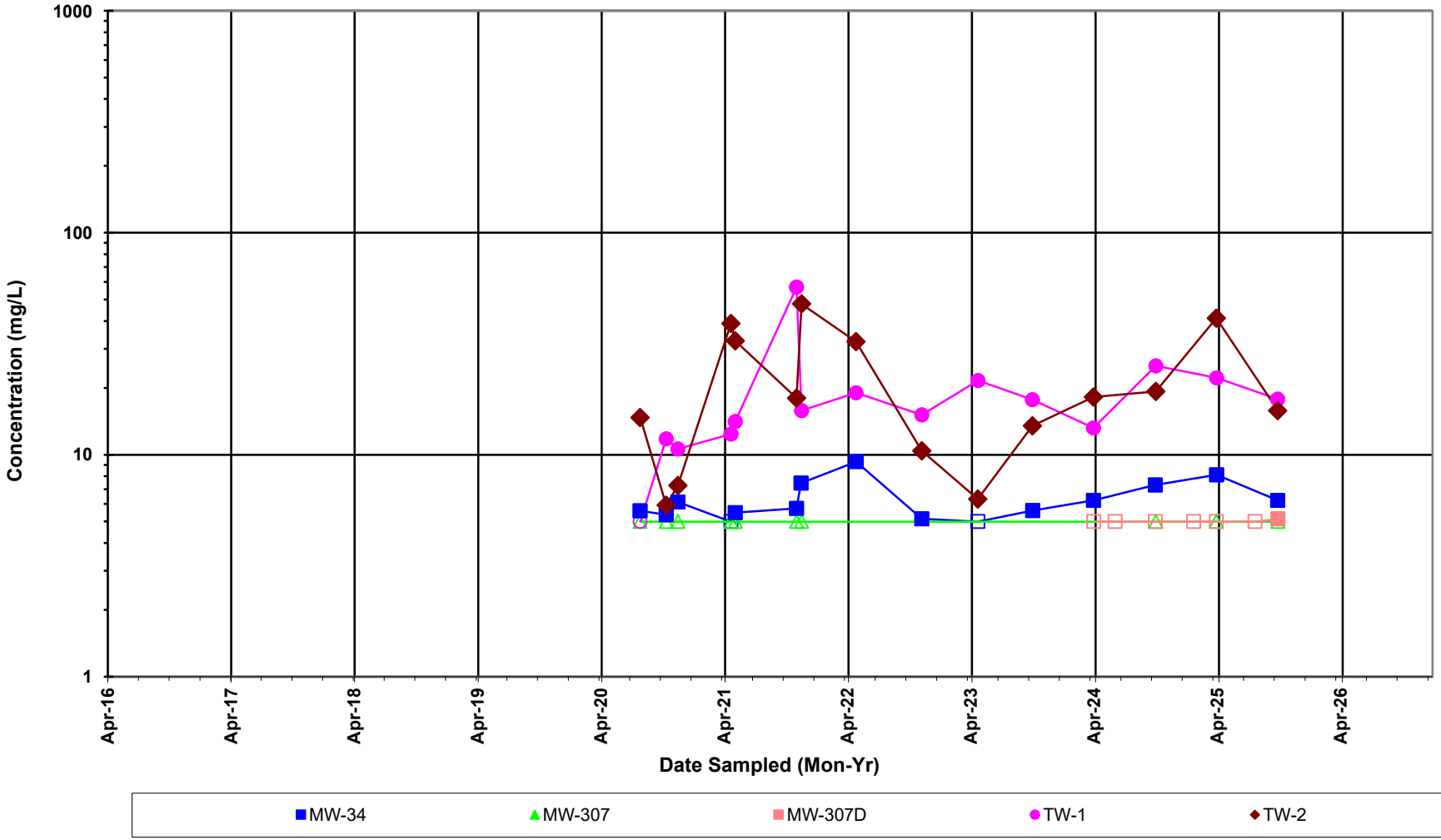
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 2B - CALCIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

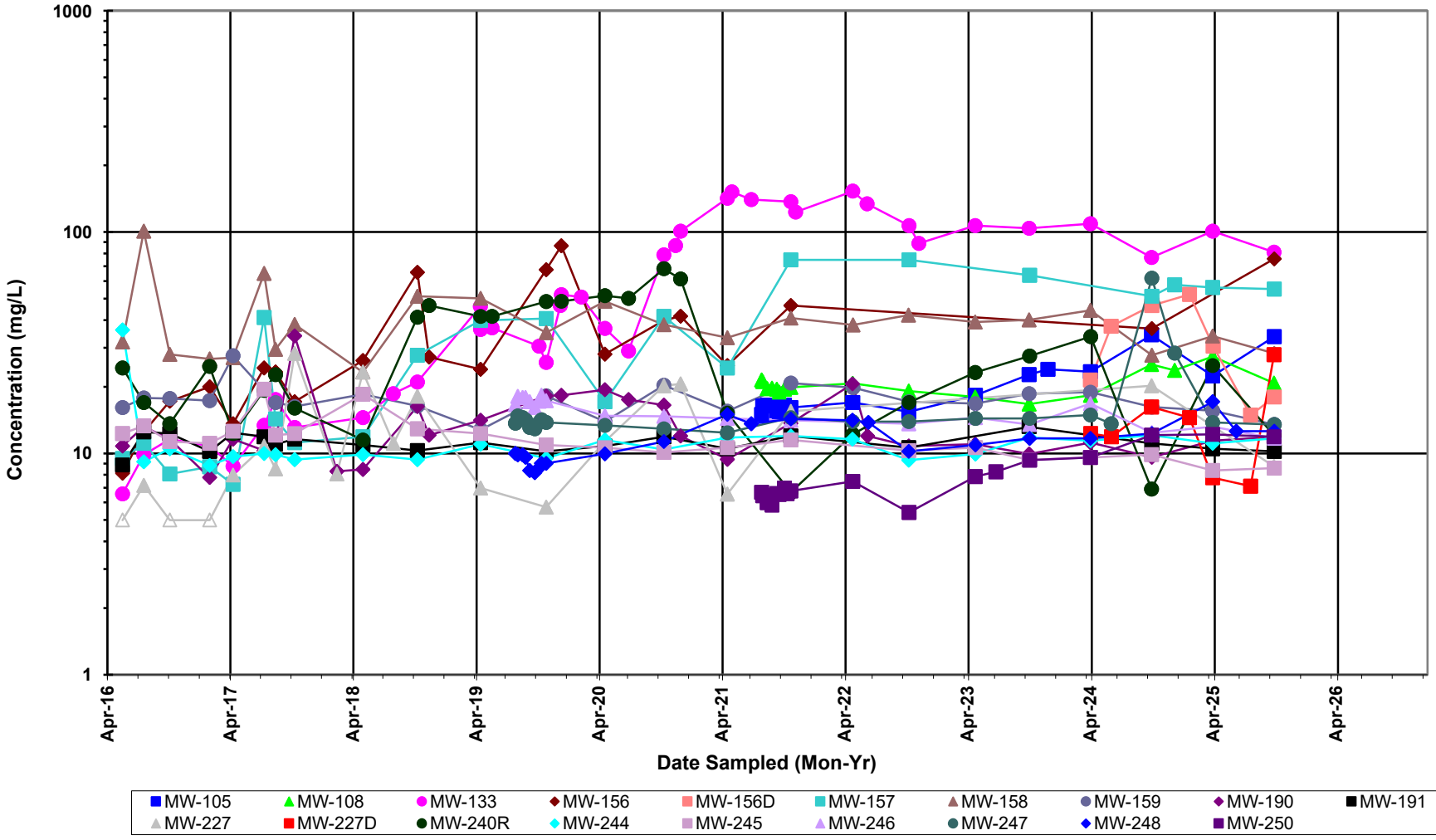
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 3A - CHLORIDE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

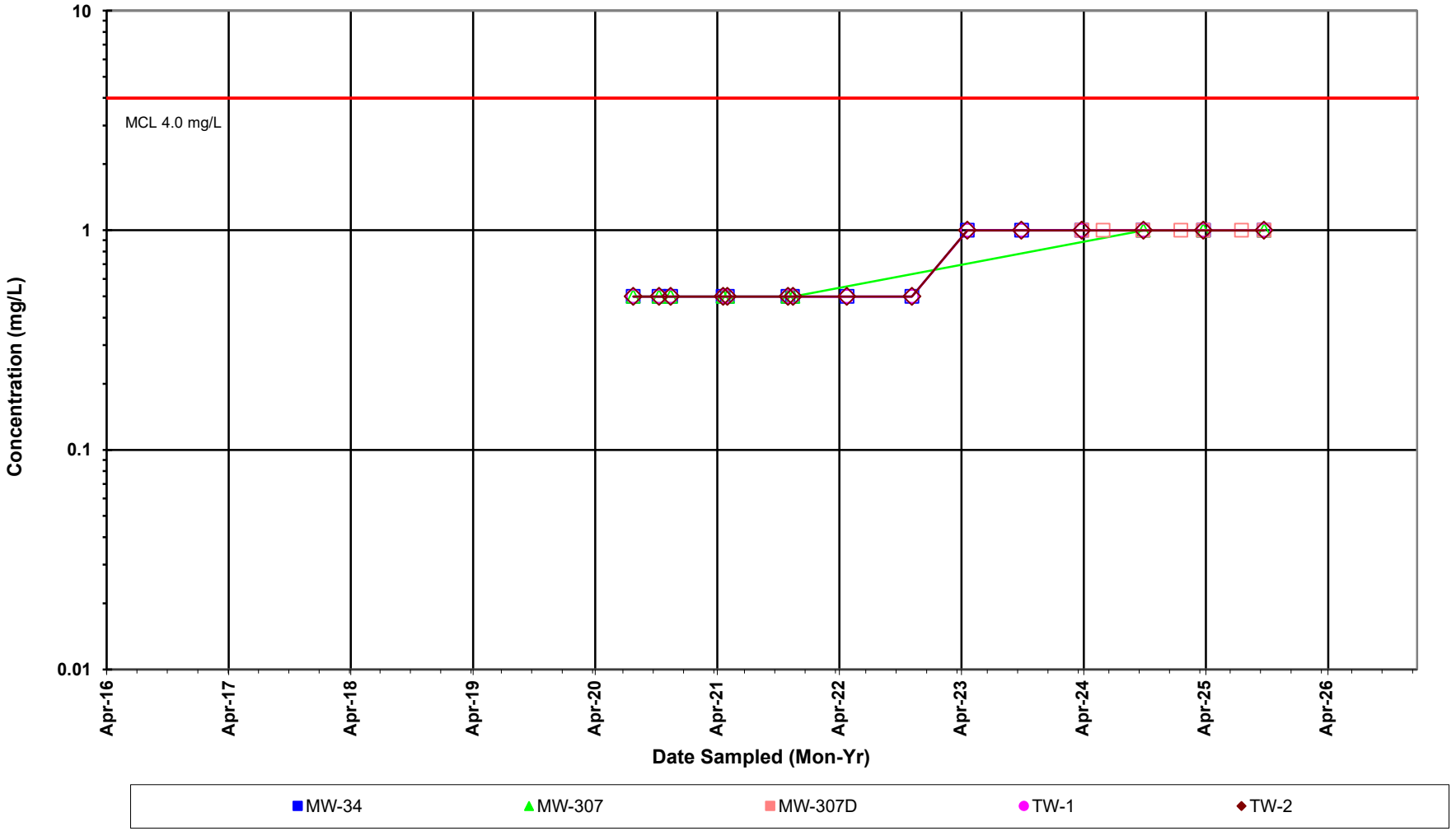
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 3B - CHLORIDE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

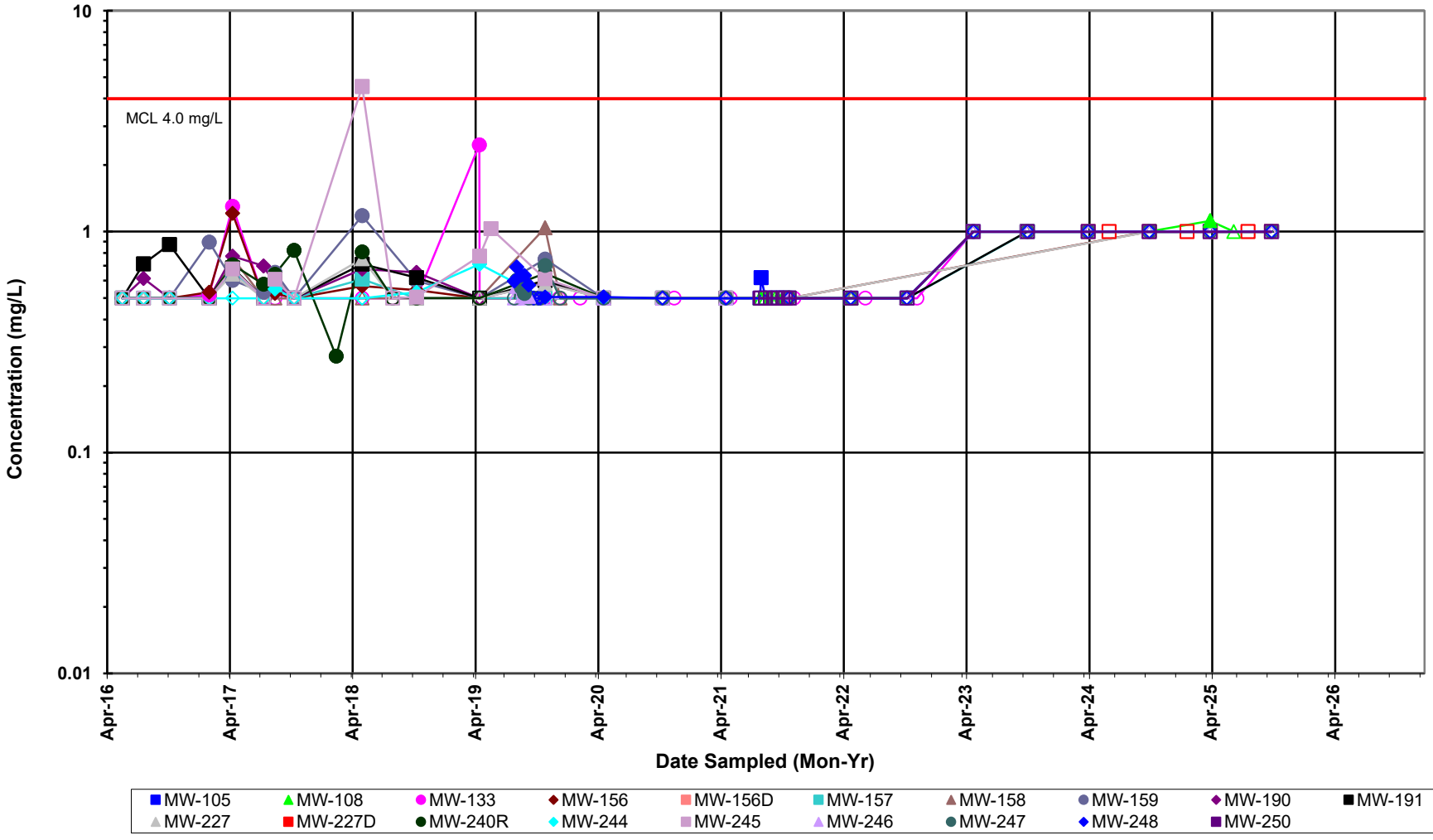
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 4A - FLUORIDE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

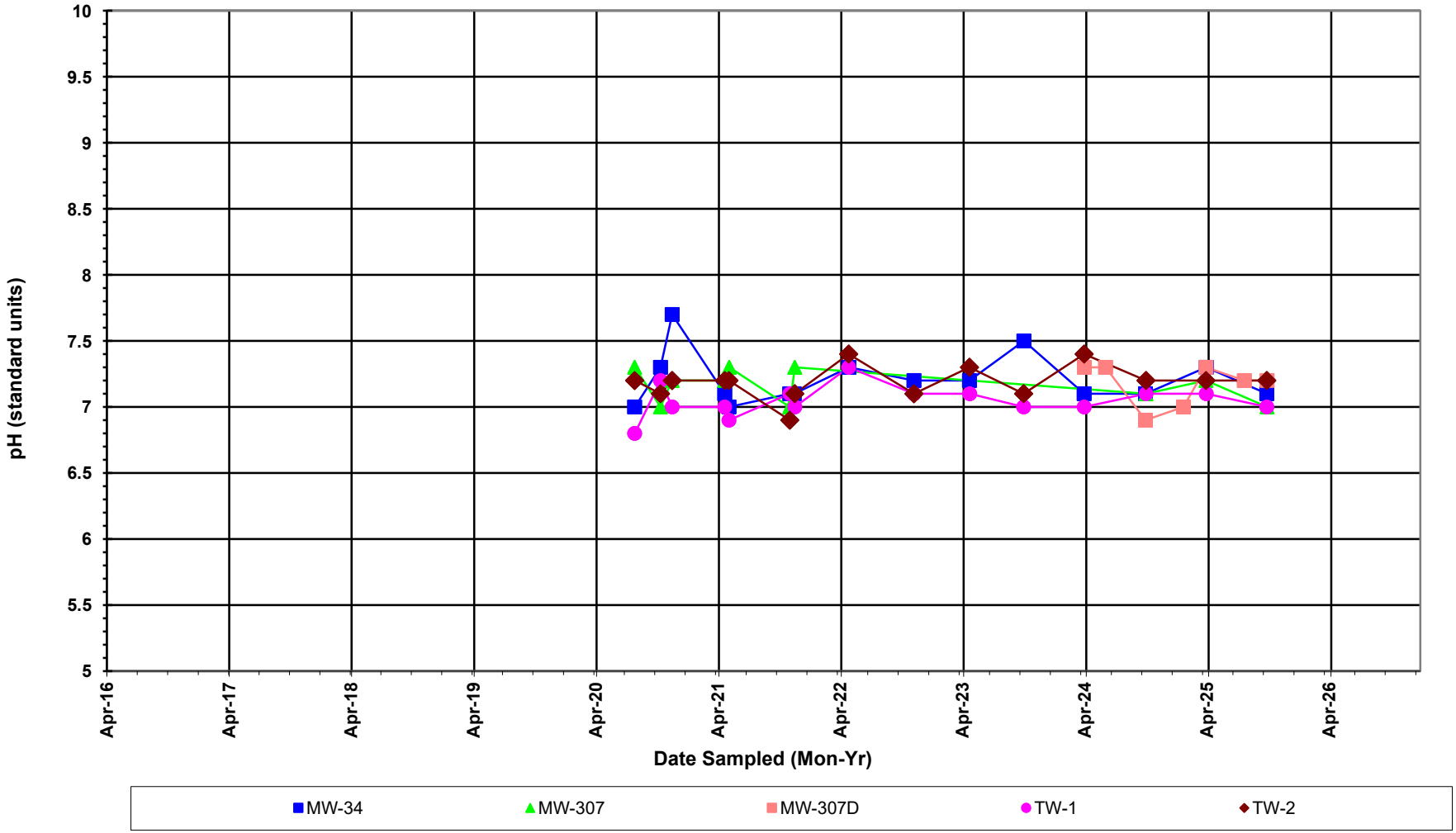
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 4B - FLUORIDE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

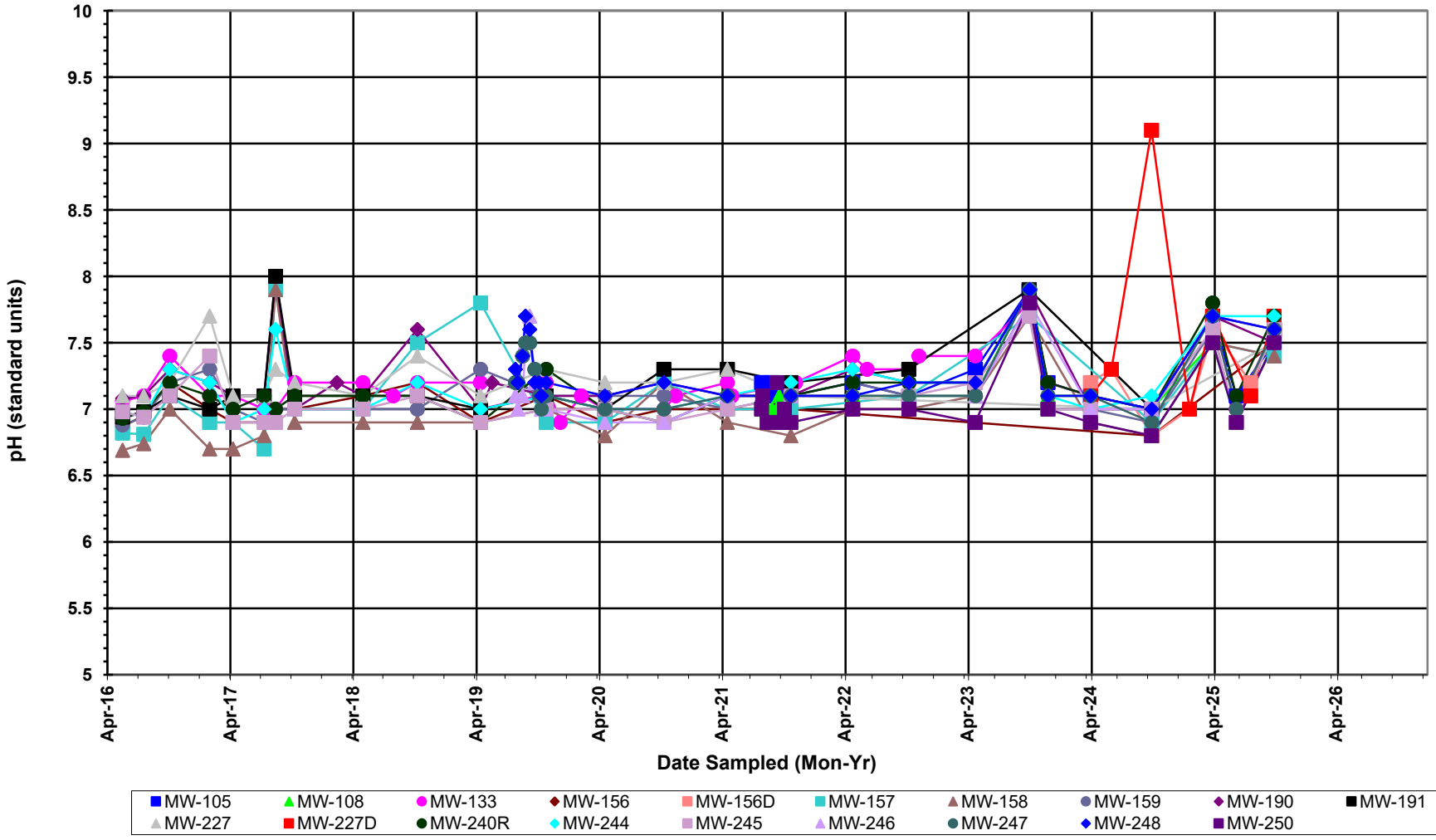
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 5A - PH, LAB - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

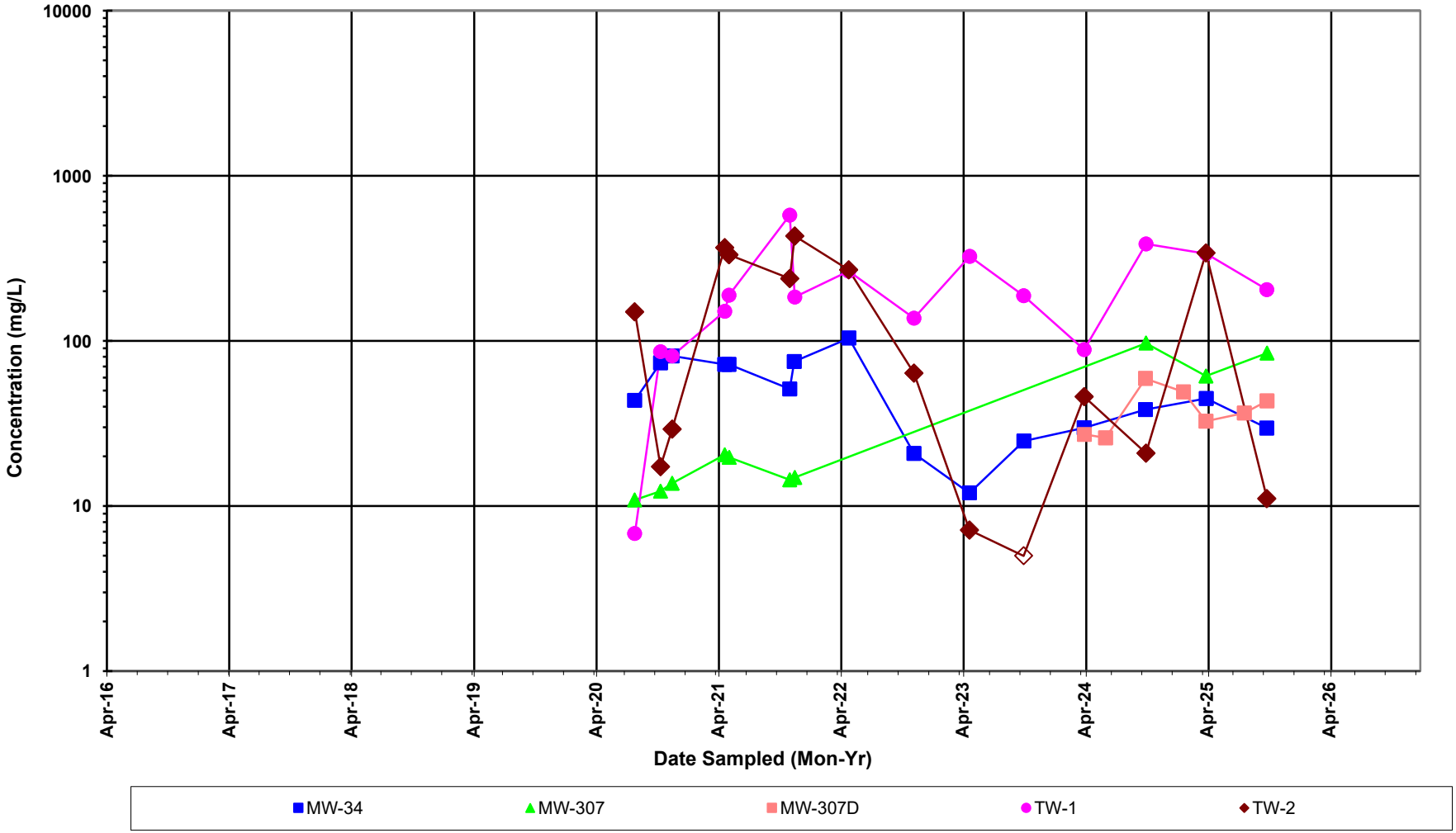
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 5B - PH, LAB - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

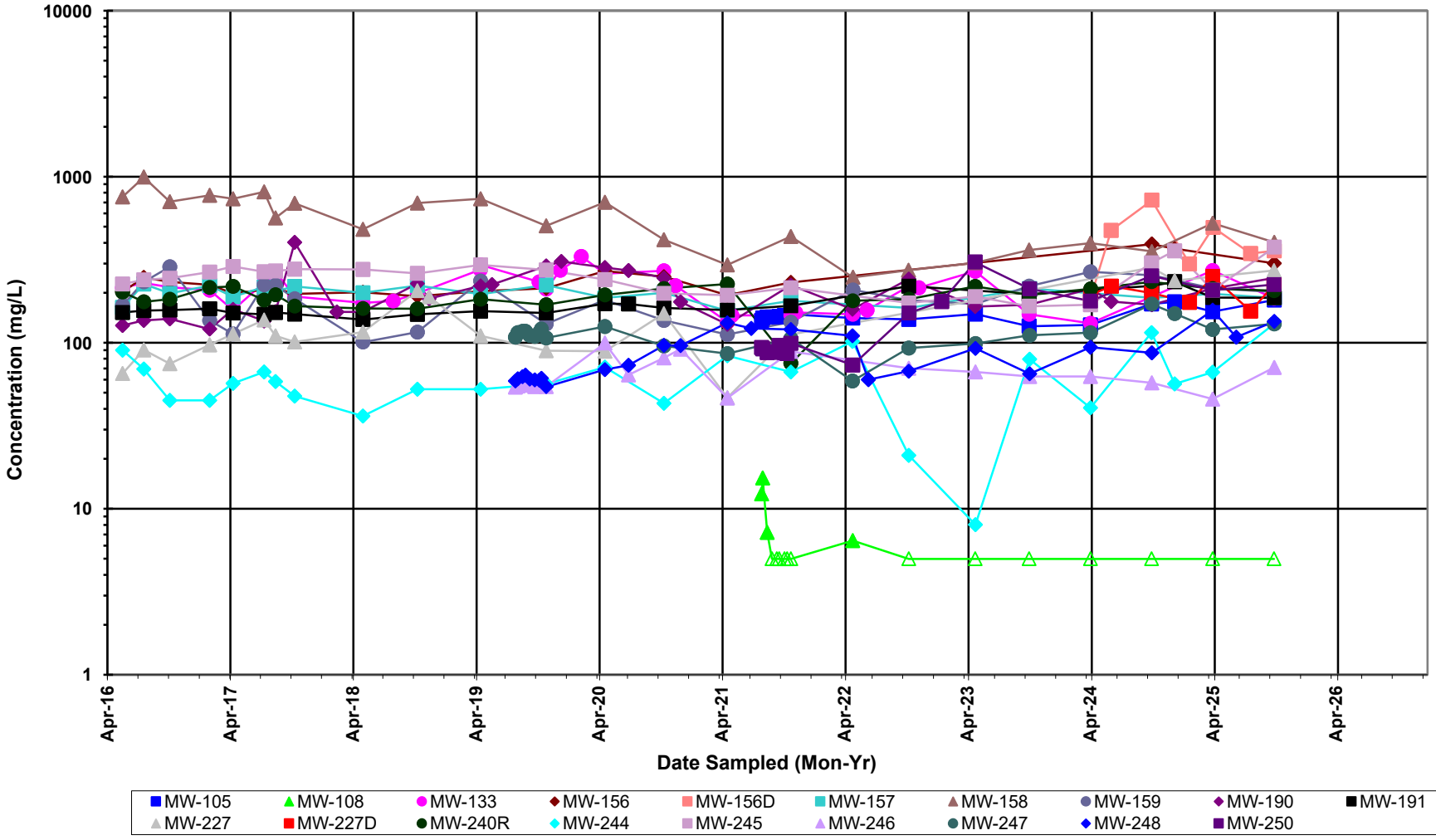
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 6A - SULFATE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

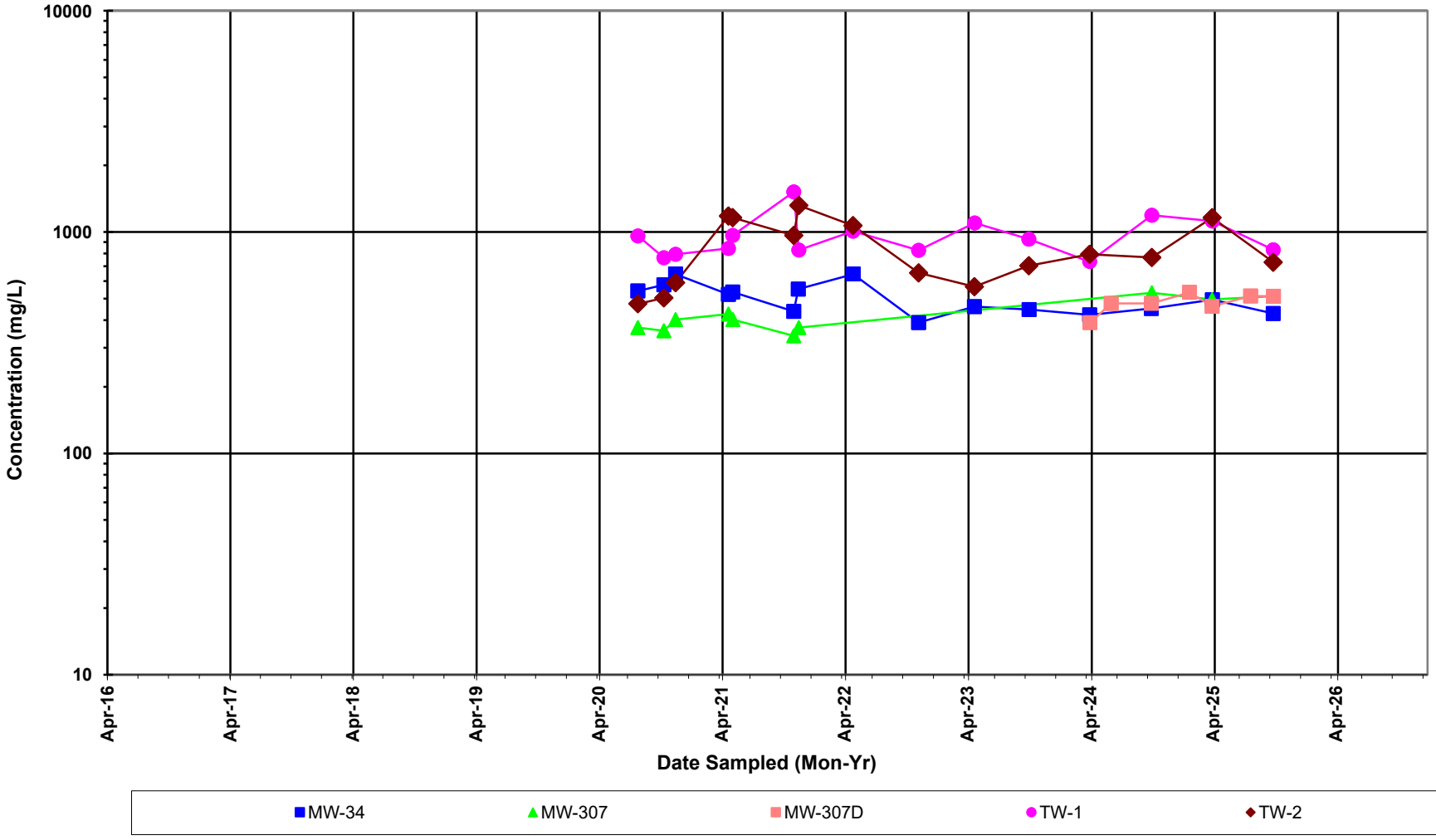
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 6B - SULFATE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

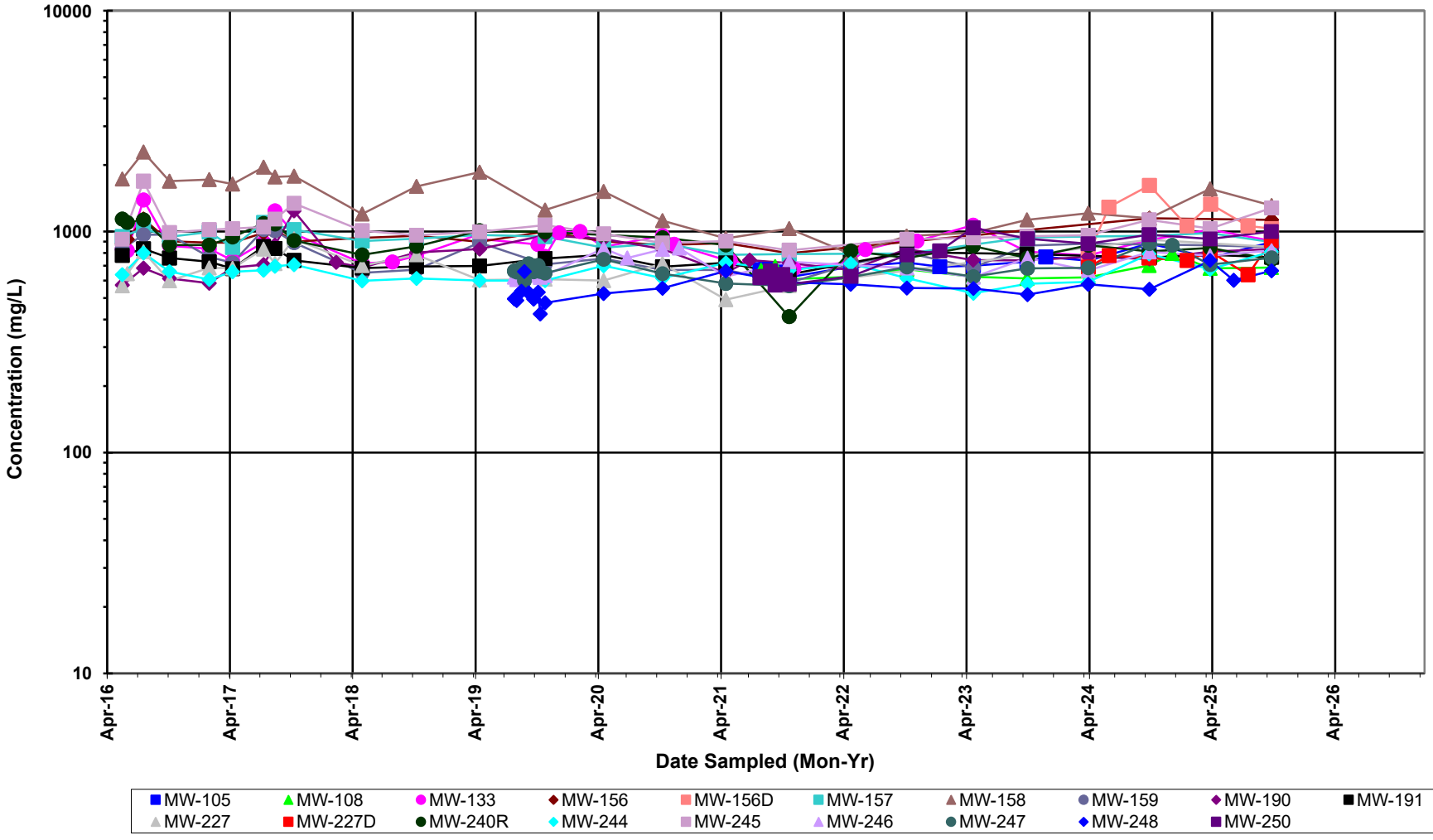
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 7A - TOTAL DISSOLVED SOLIDS (TDS) - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

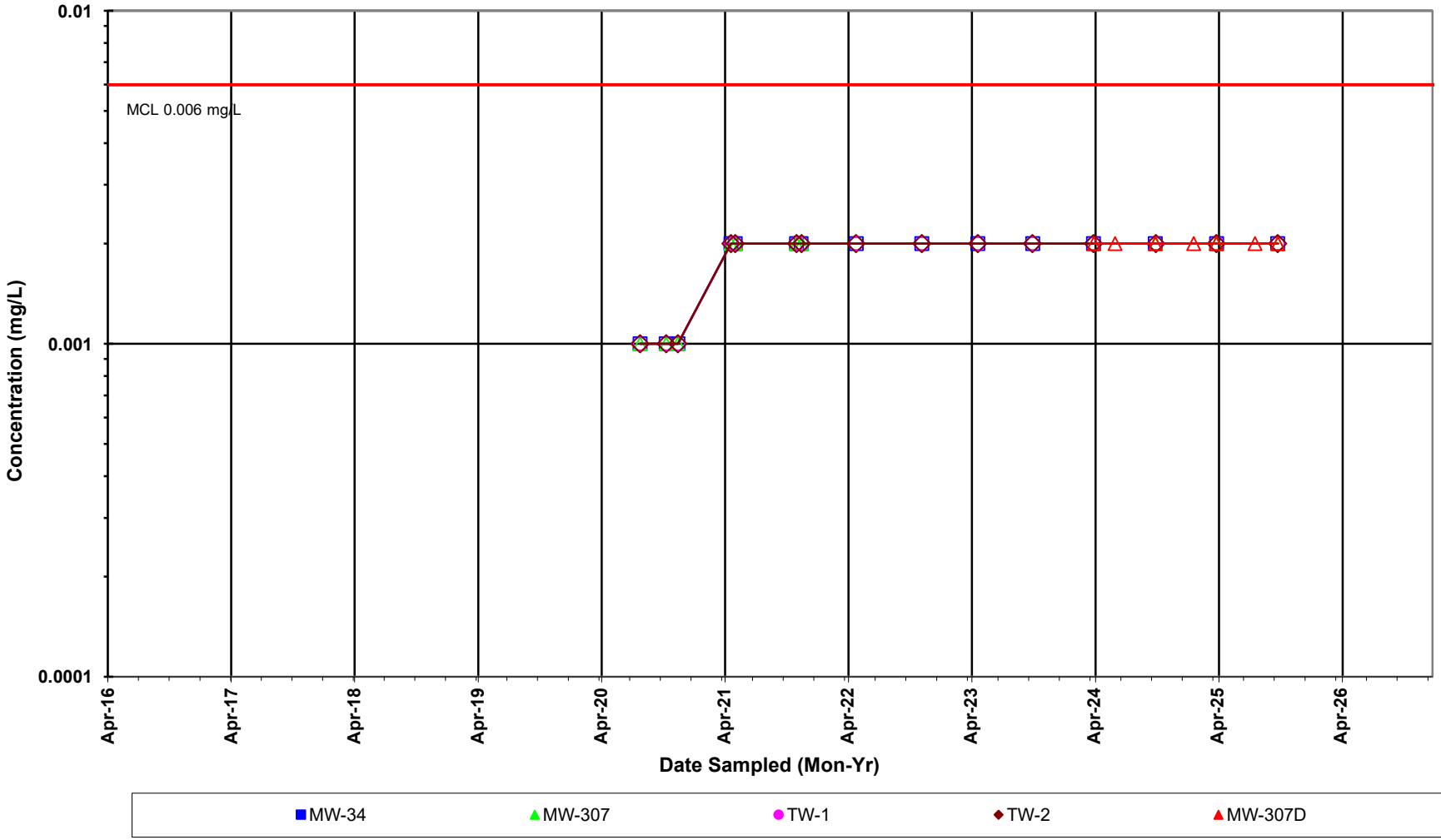
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 7B - TOTAL DISSOLVED SOLIDS (TDS) - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

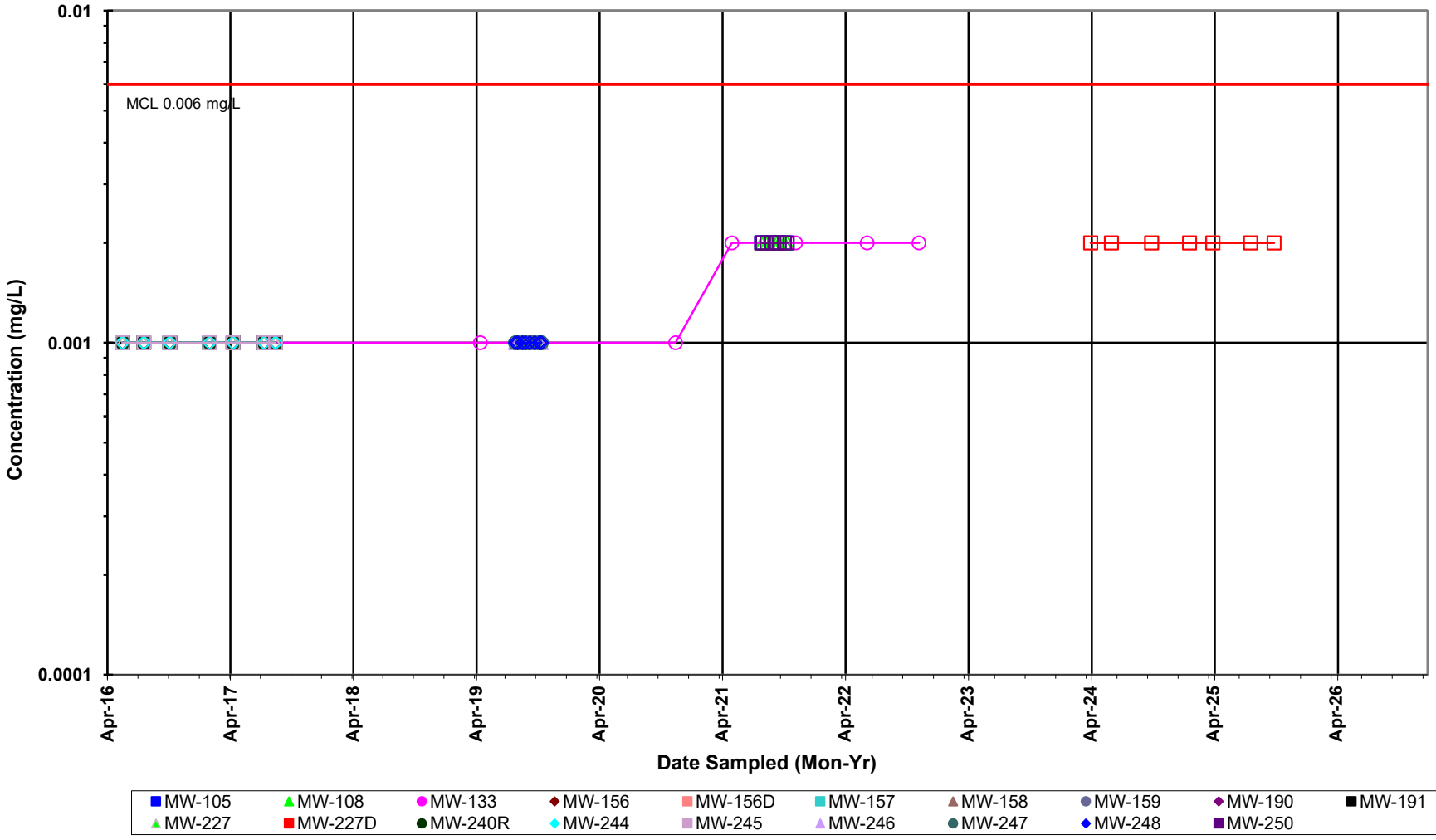
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 8A - ANTIMONY - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

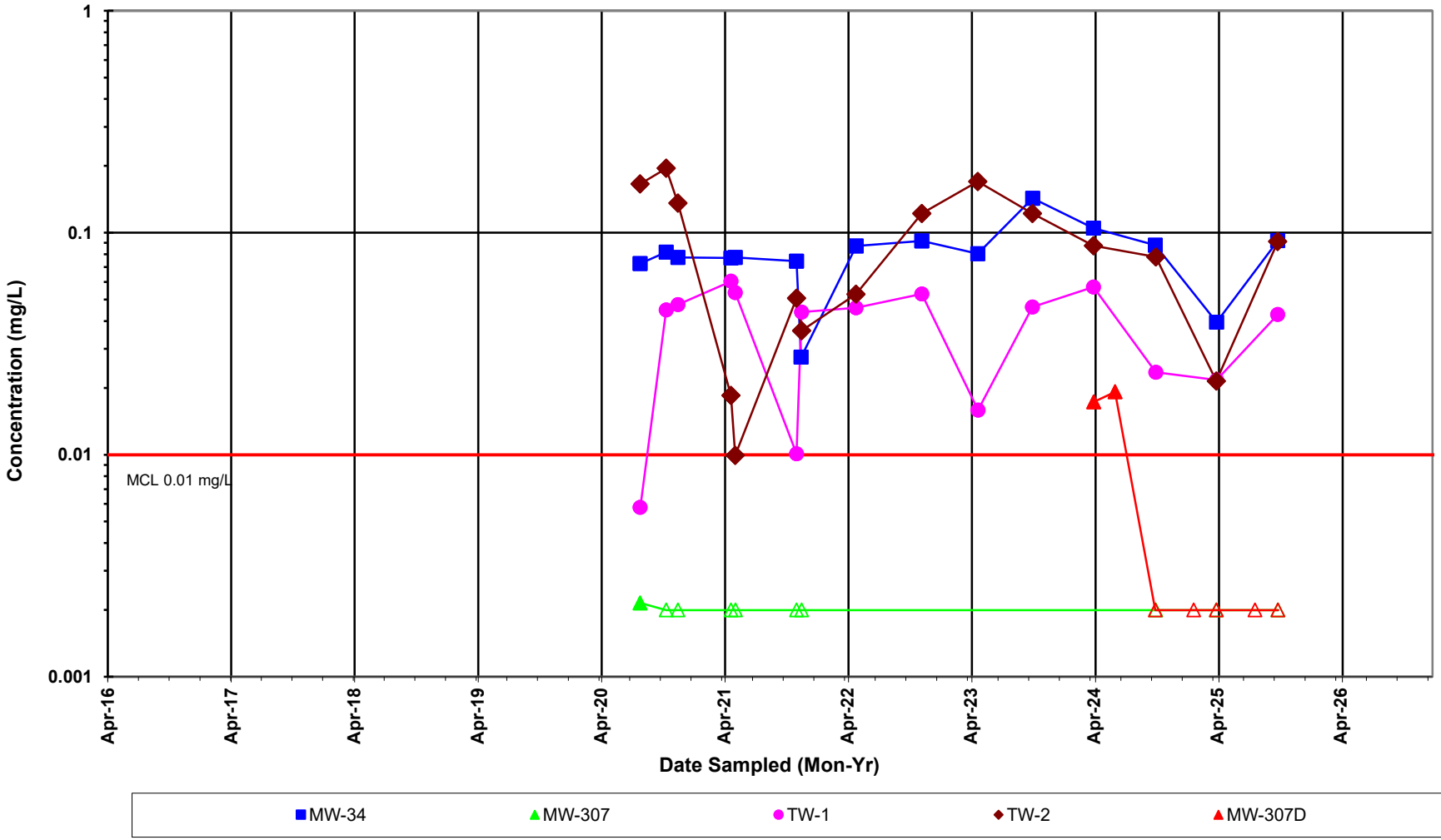
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 8B - ANTIMONY - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

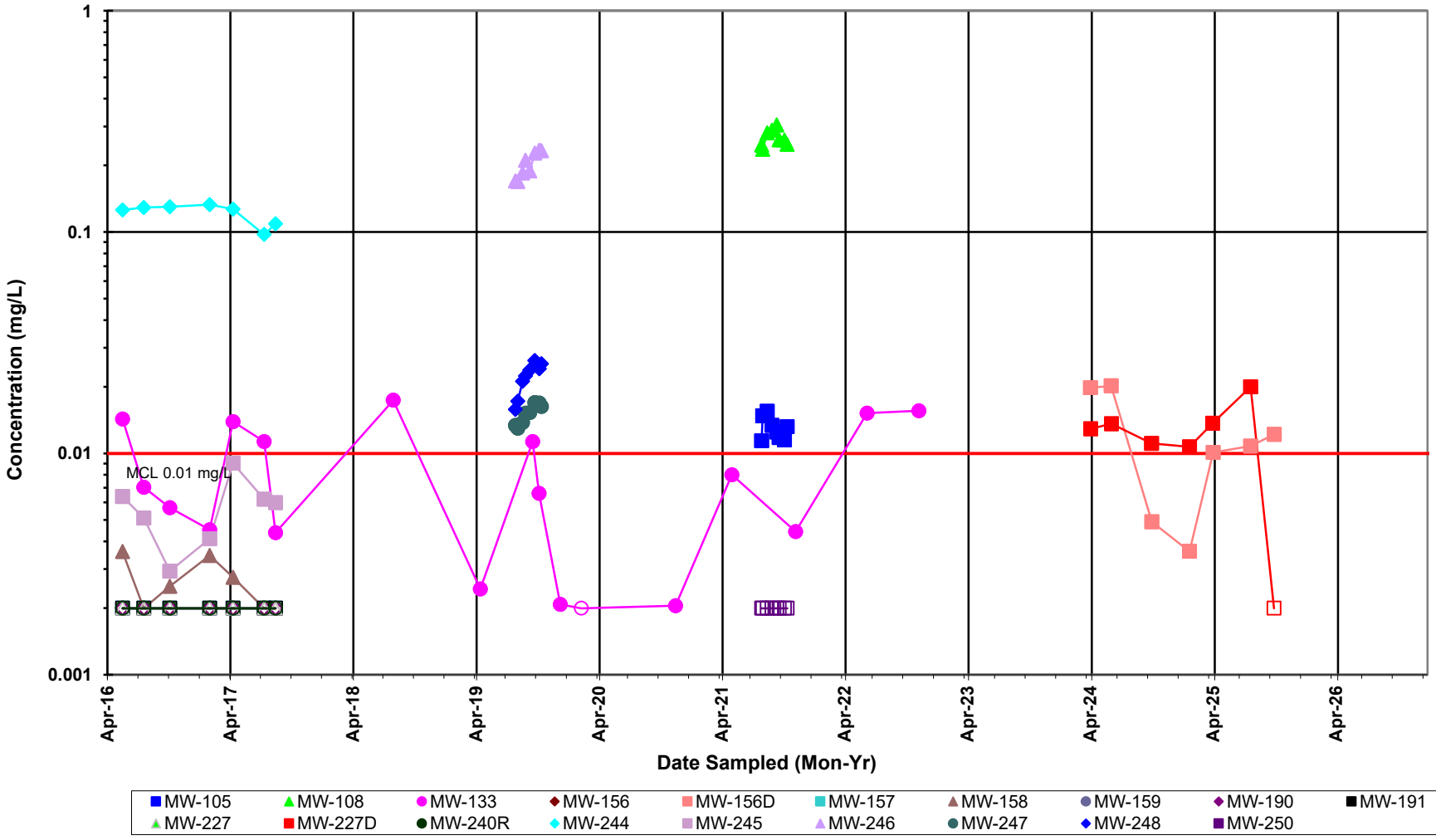
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 9A - ARSENIC - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

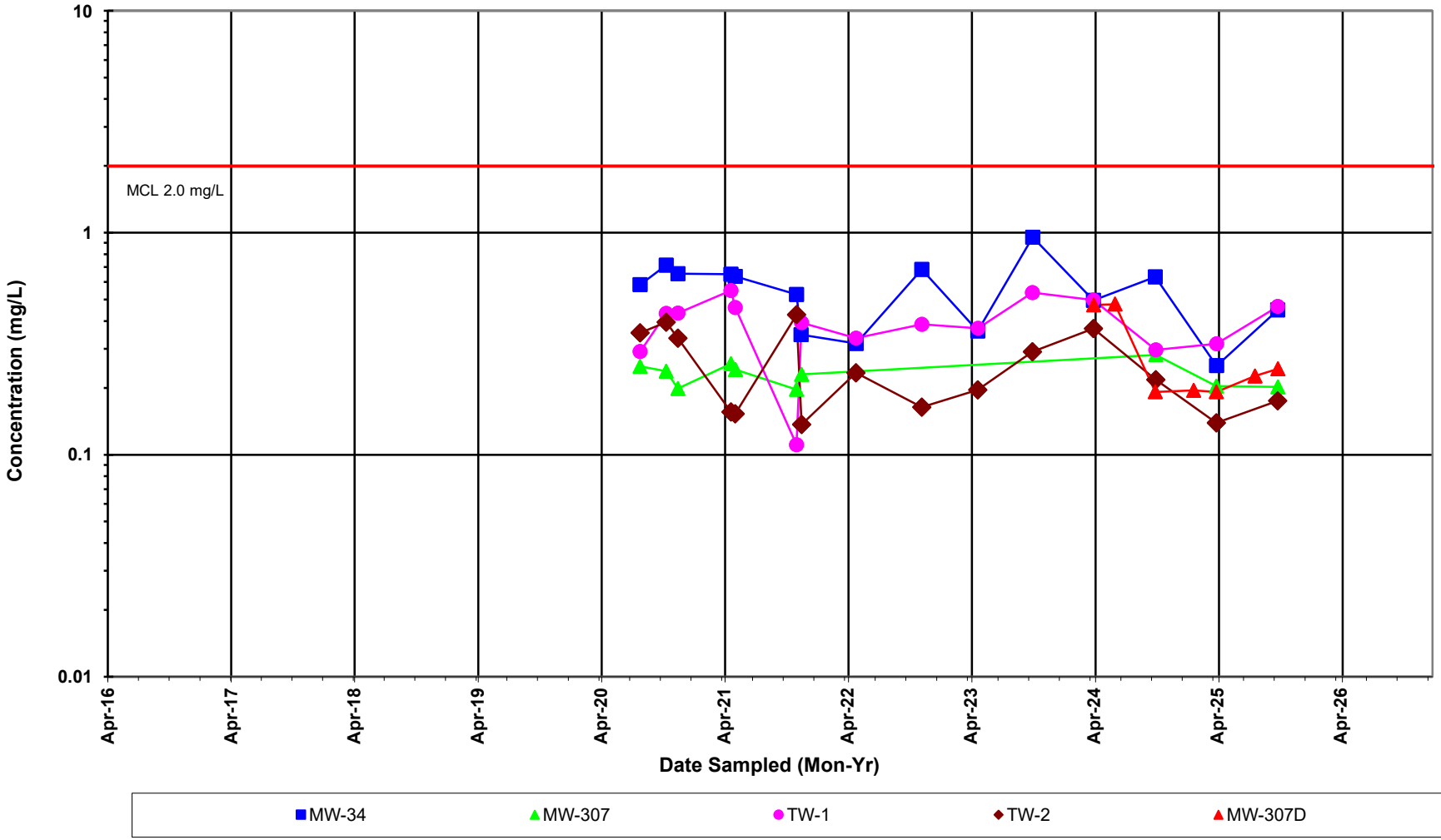
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 9B - ARSENIC - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

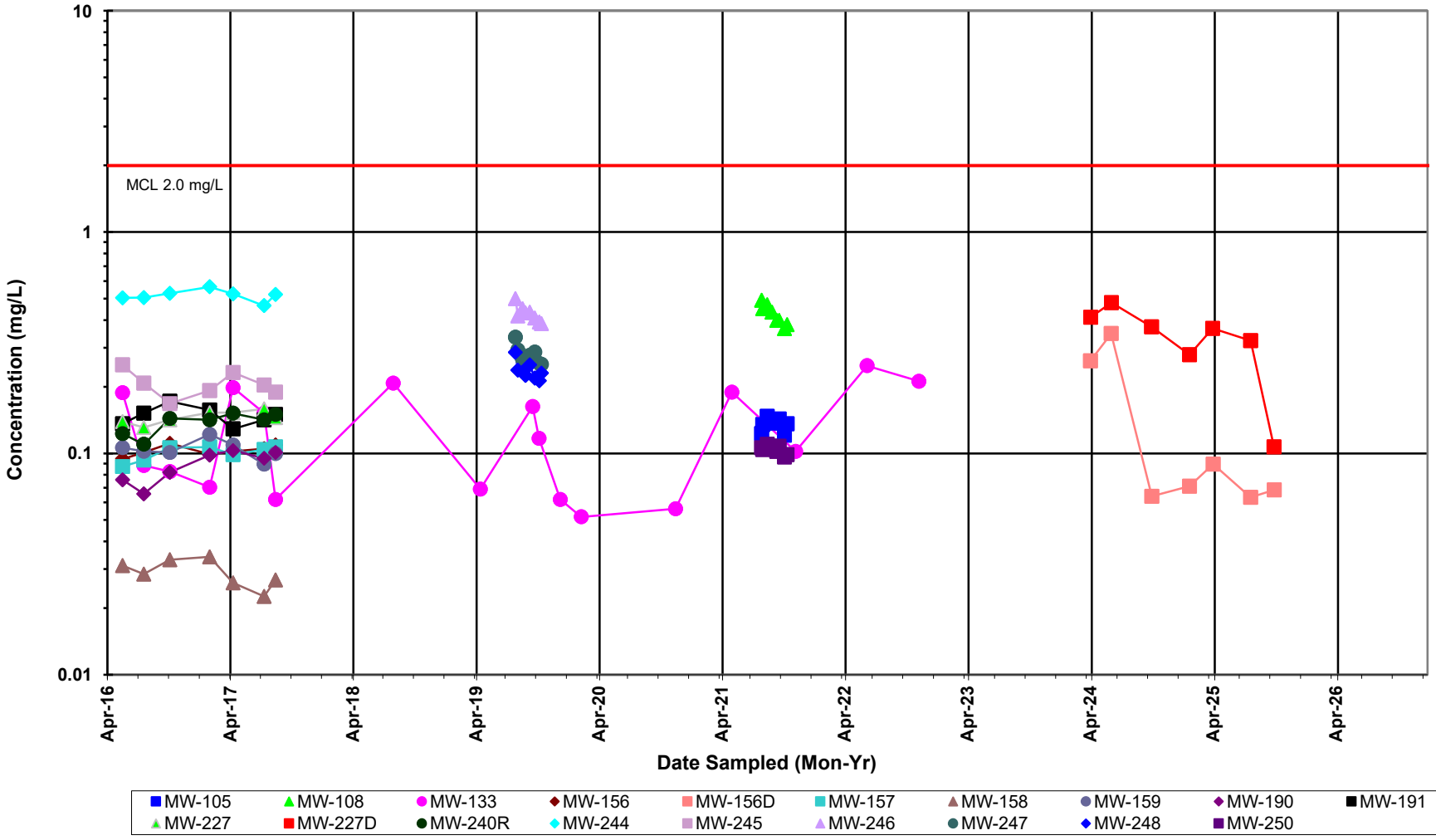
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 10A - BARIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

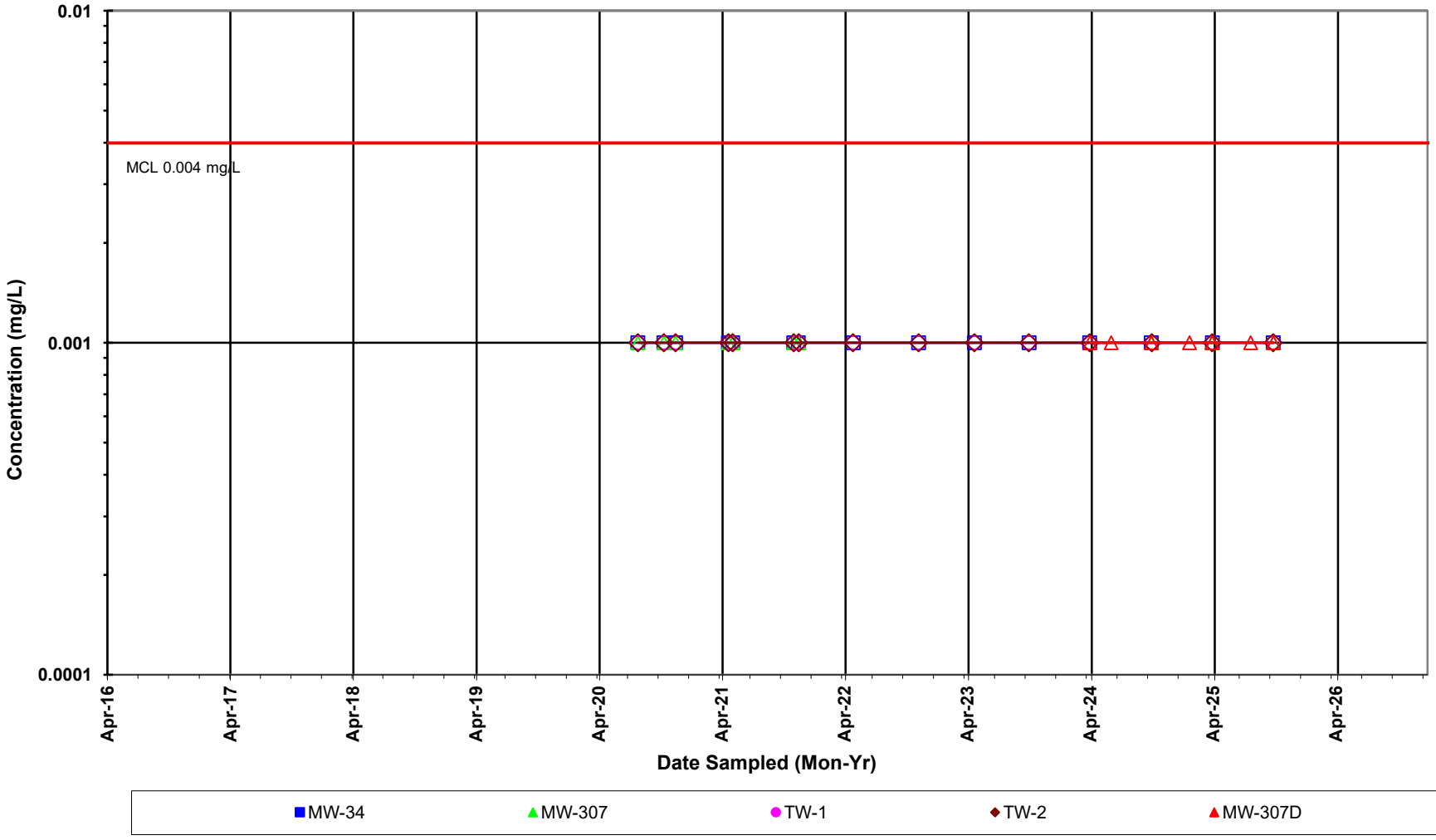
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 10B - BARIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

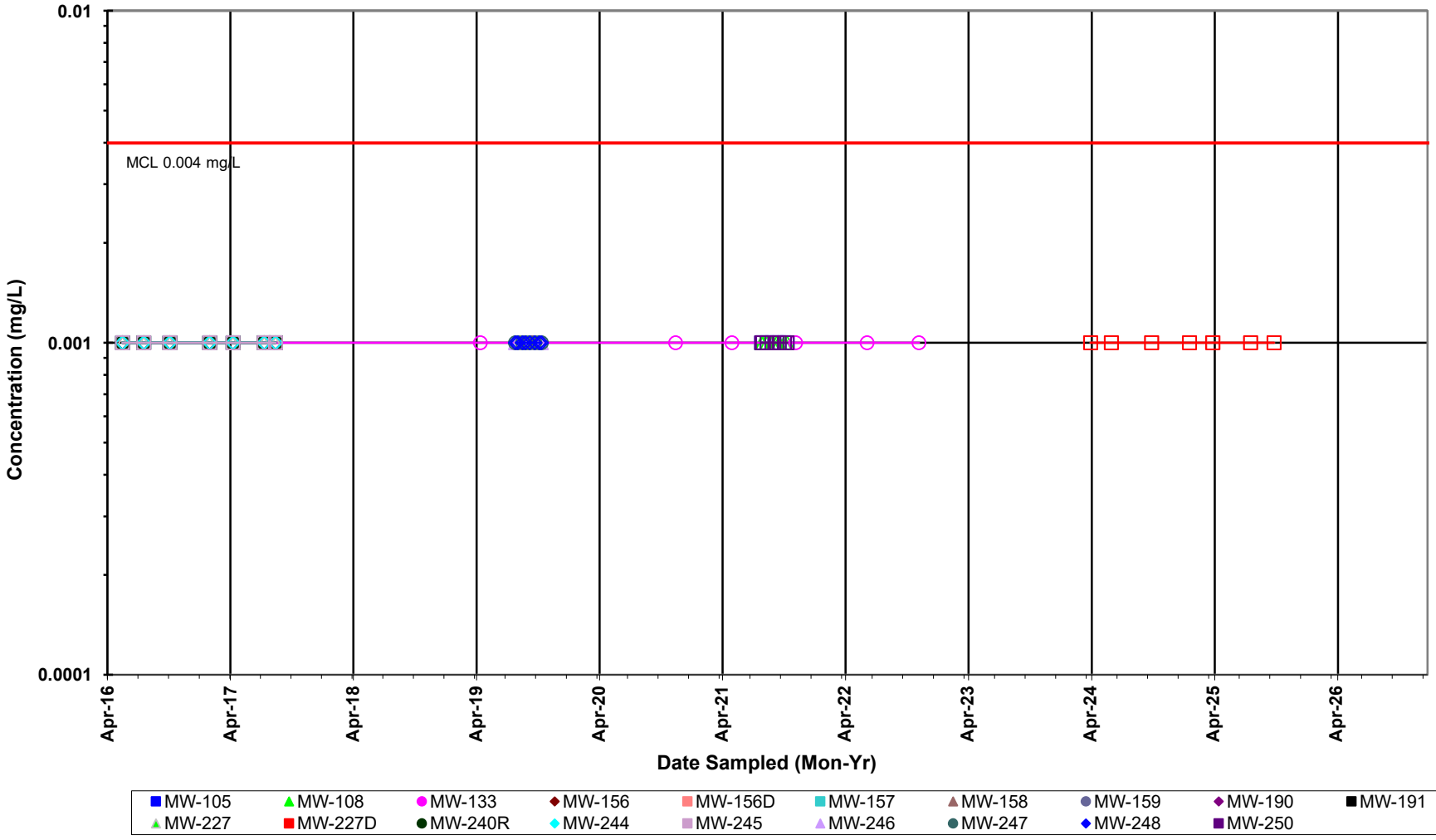
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 11A - BERYLLIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

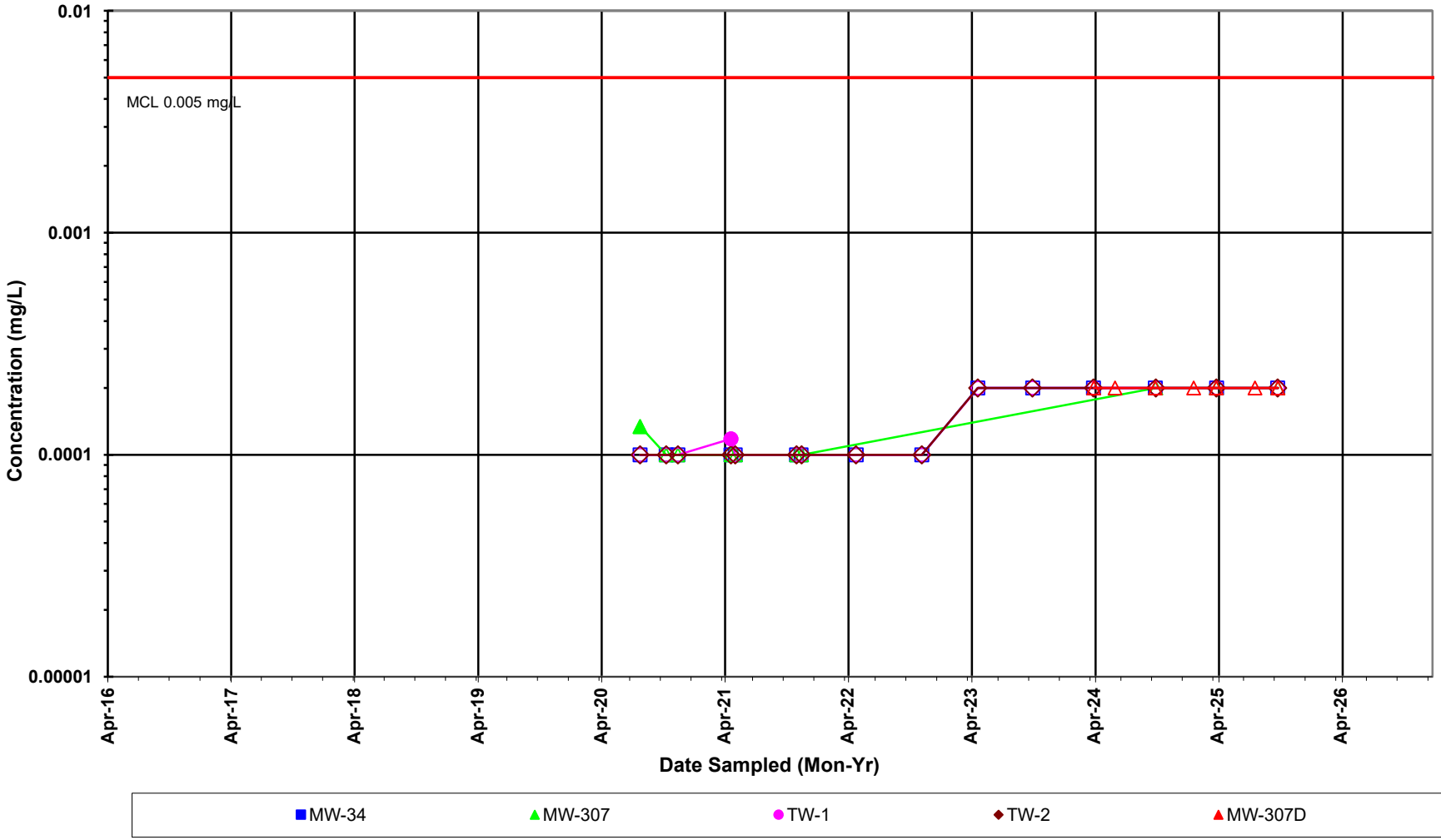
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 11B - BERYLLIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

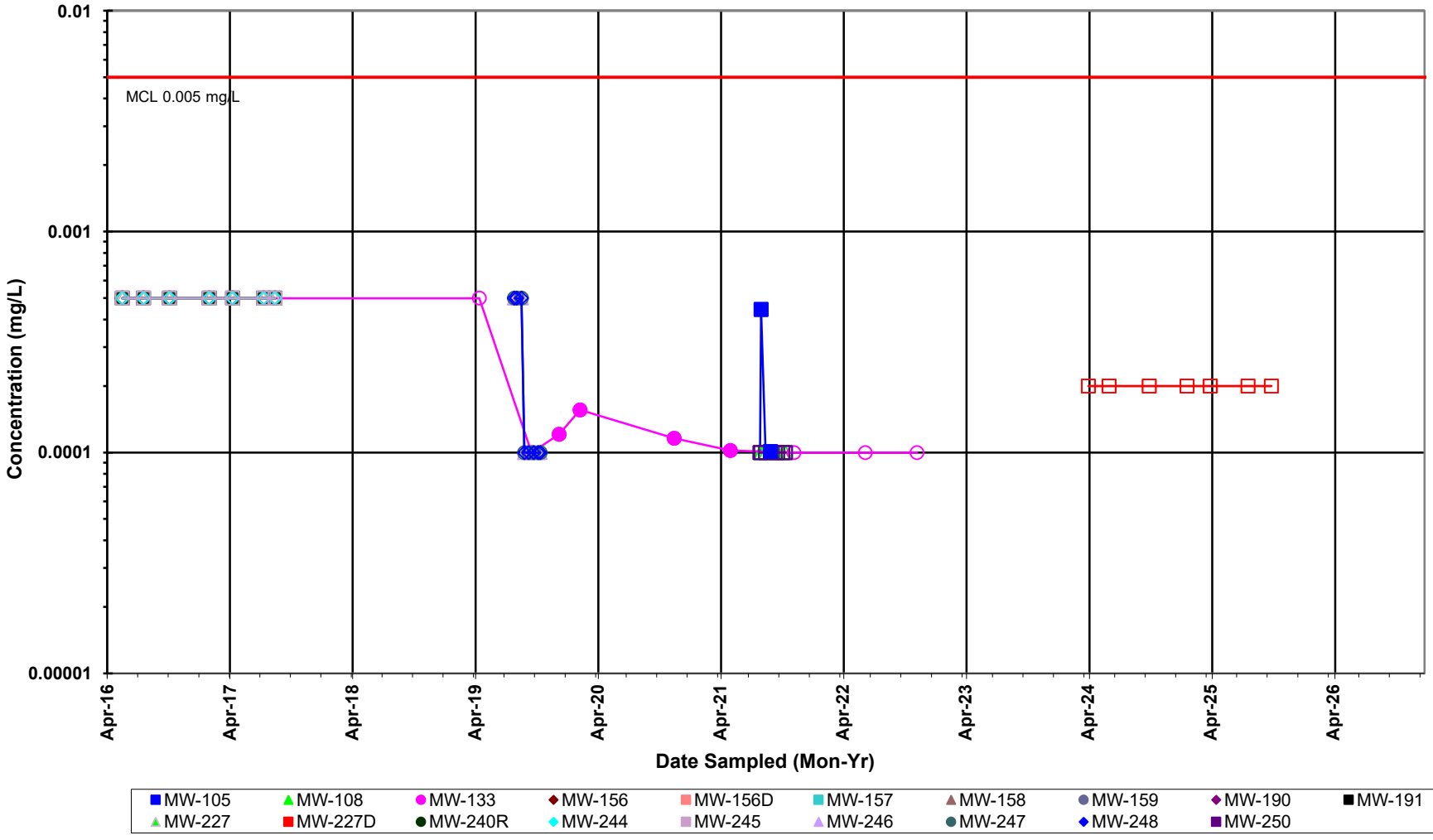
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 12A - CADMIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

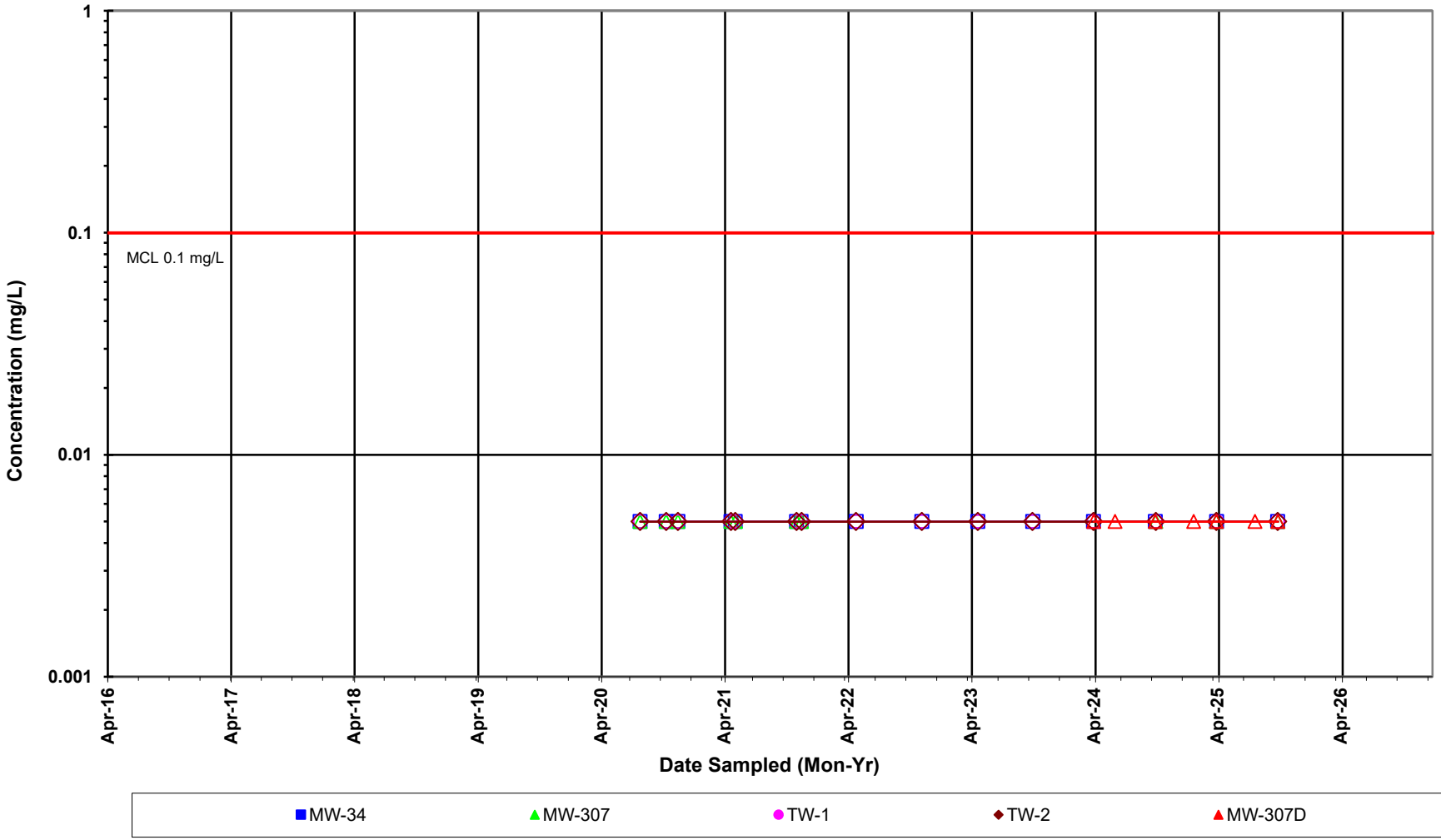
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 12B - CADMIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

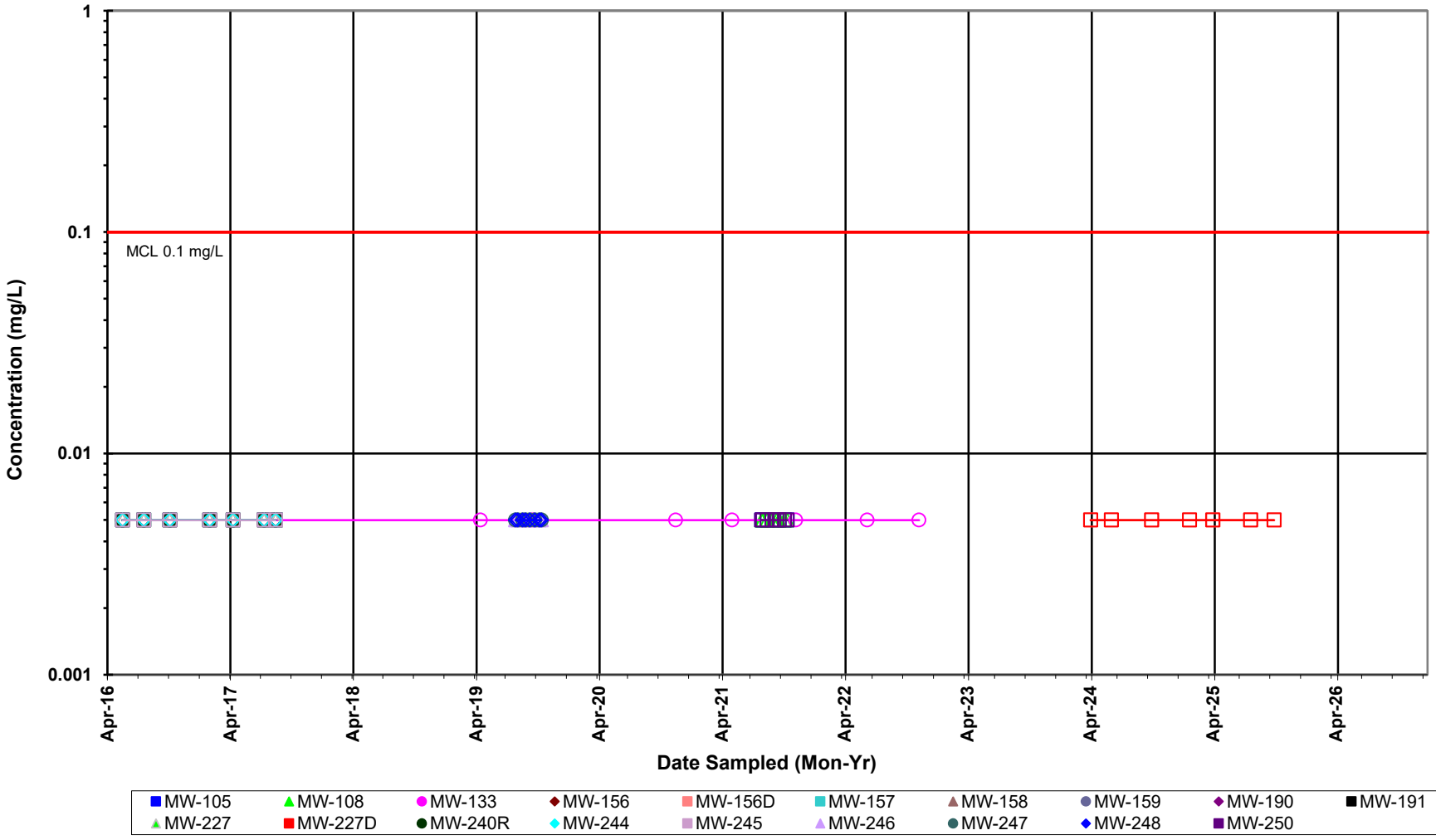
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 13A - CHROMIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

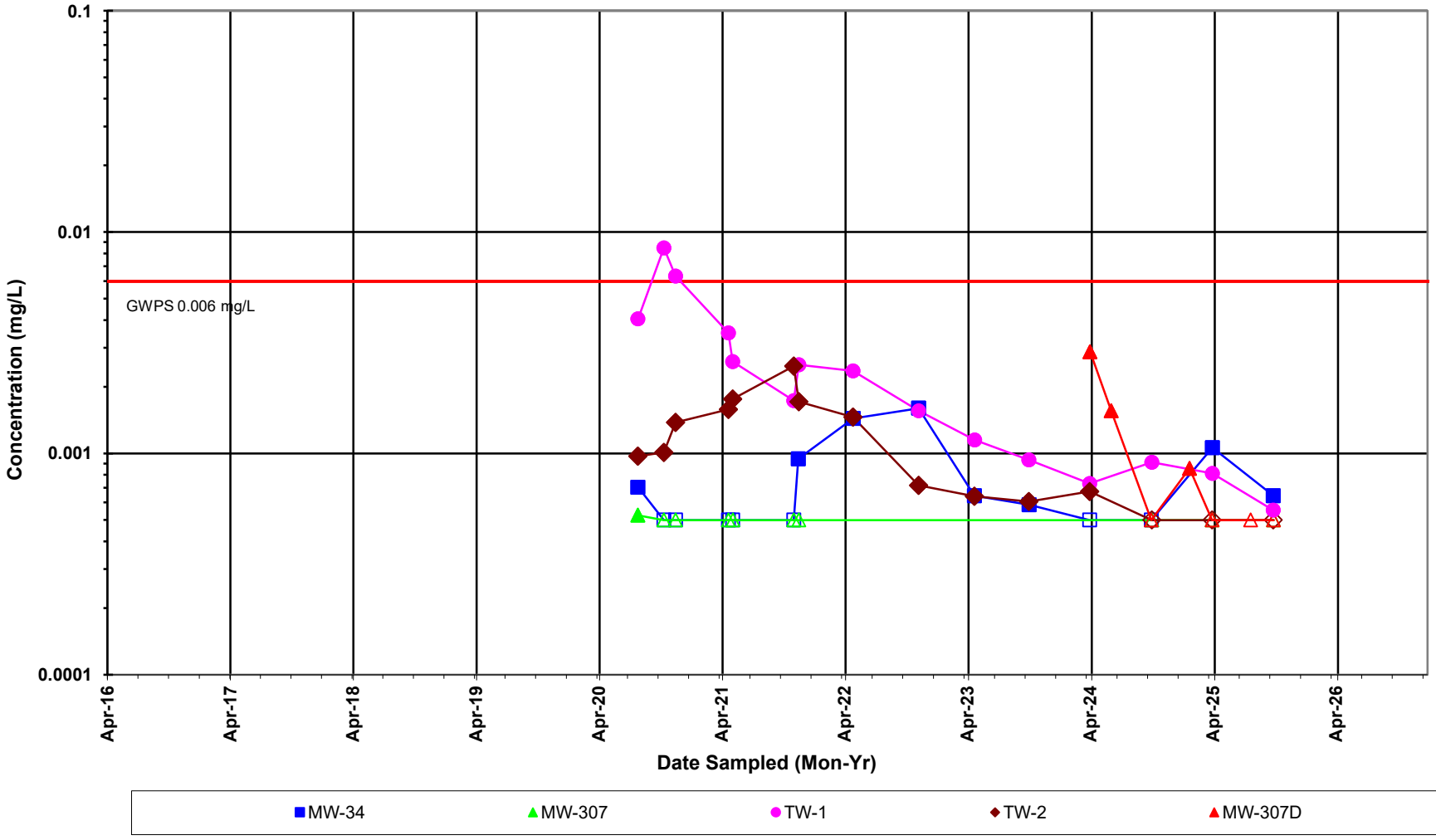
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 13B - CHROMIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

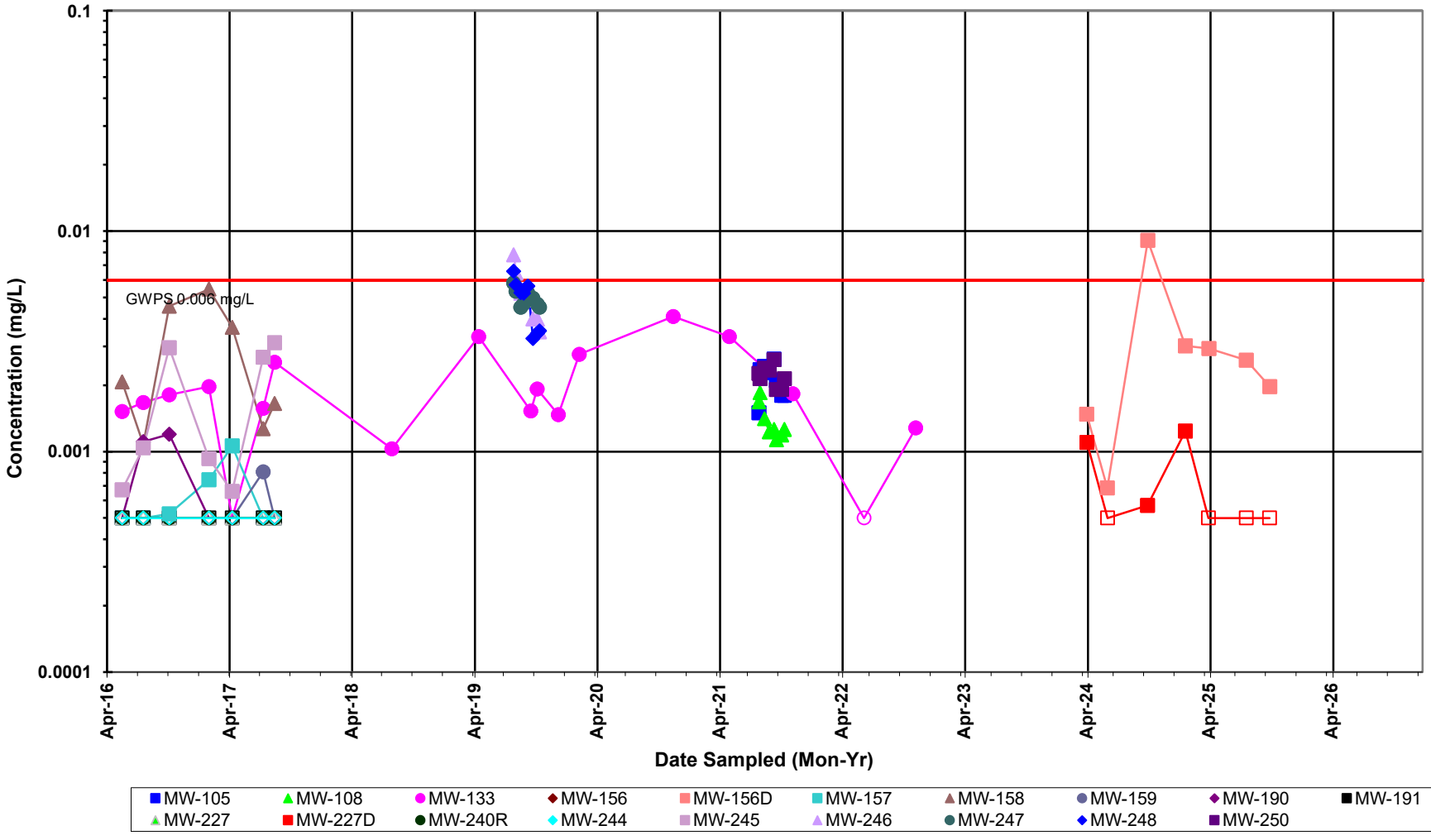
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 14A - COBALT - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

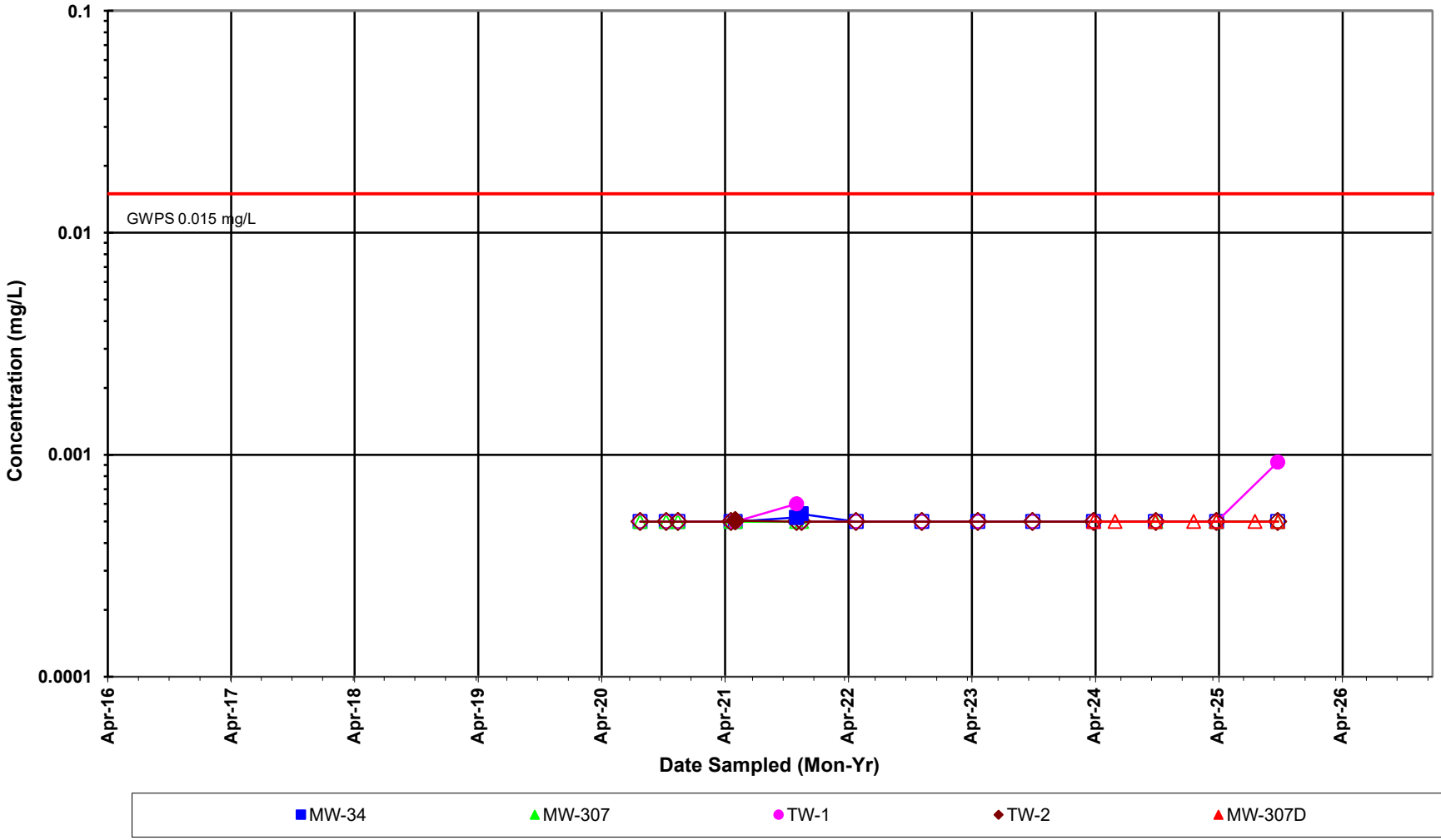
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 14B - COBALT - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

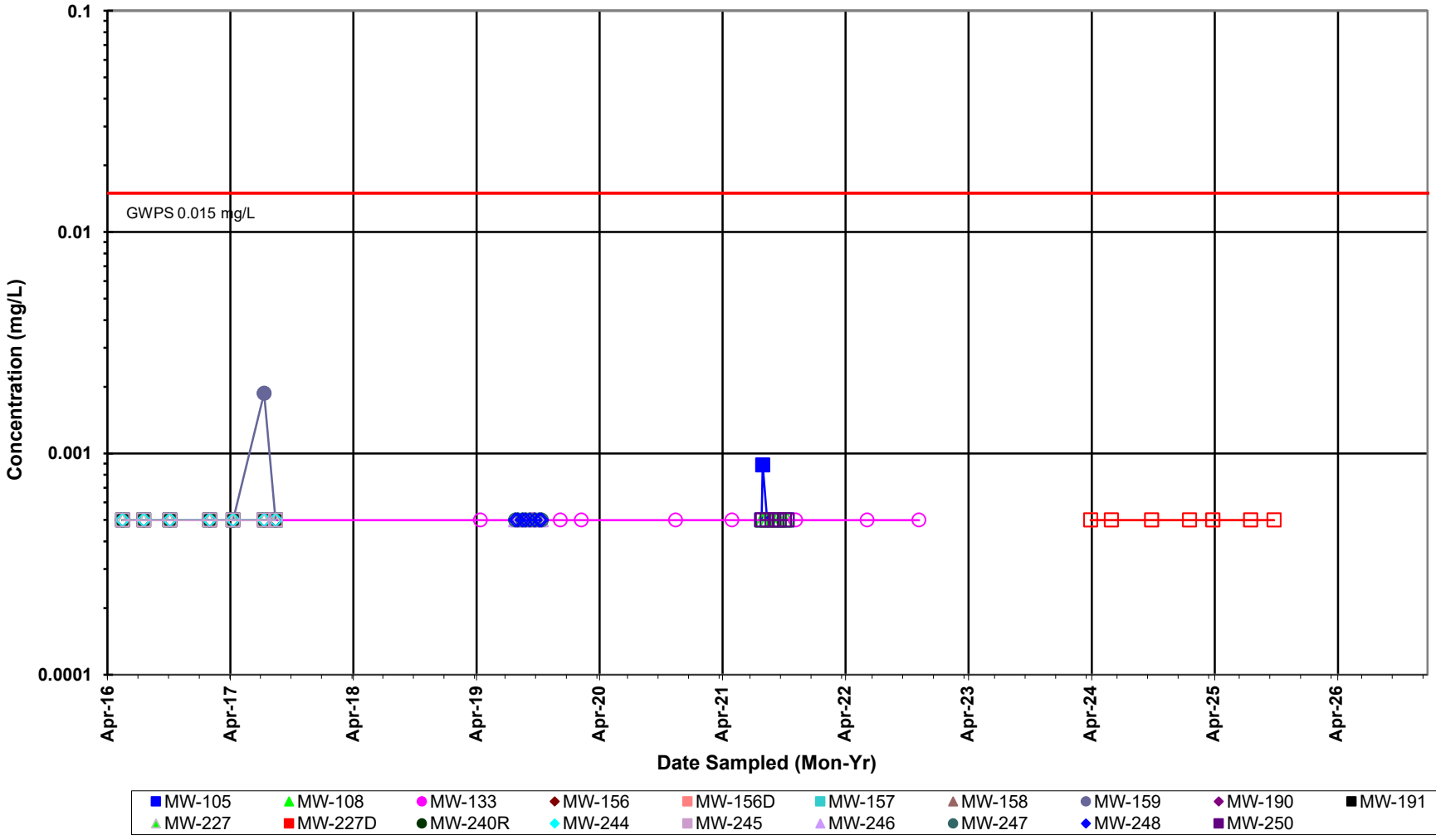
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 15A - LEAD - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

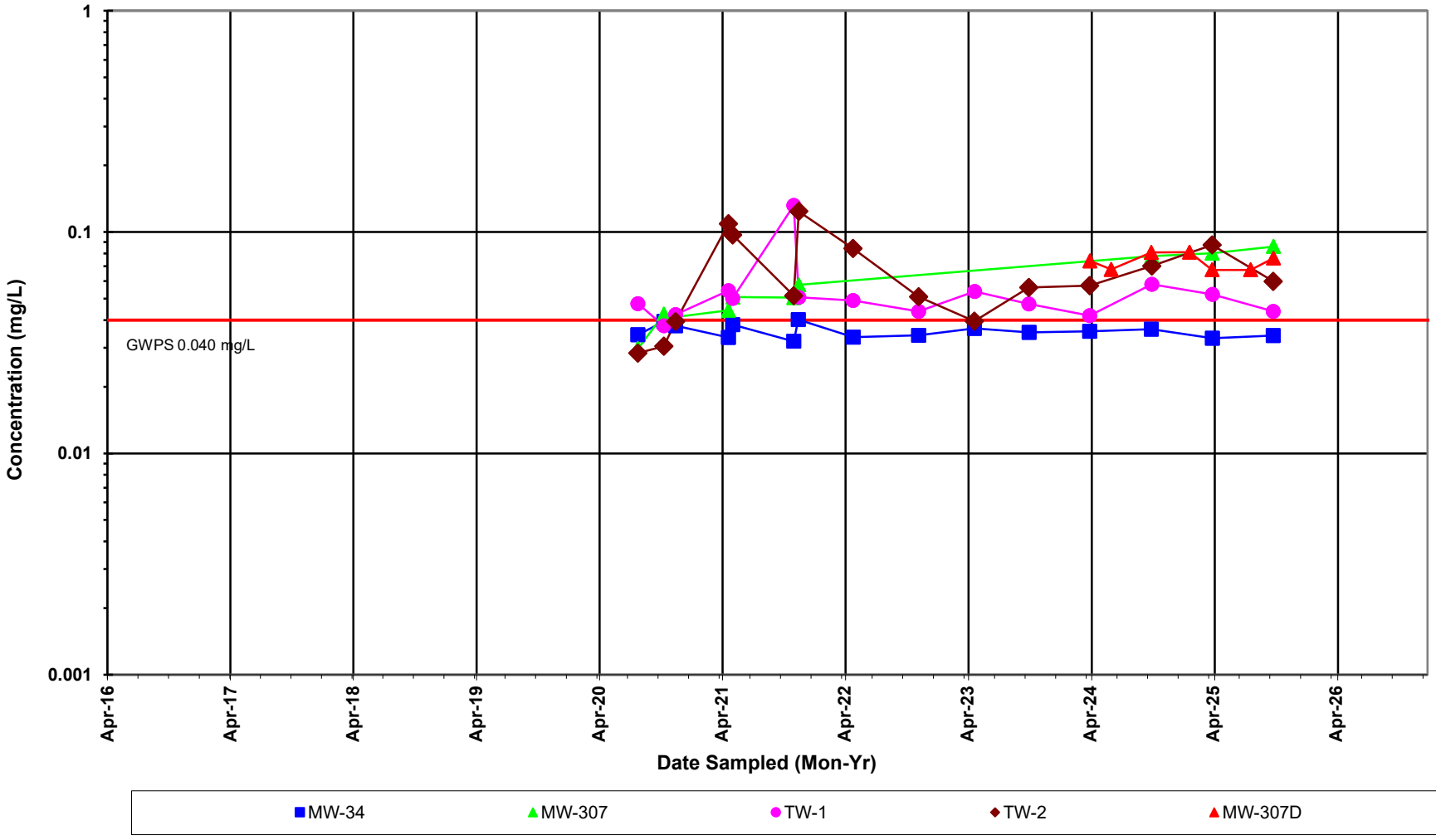
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 15B - LEAD - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

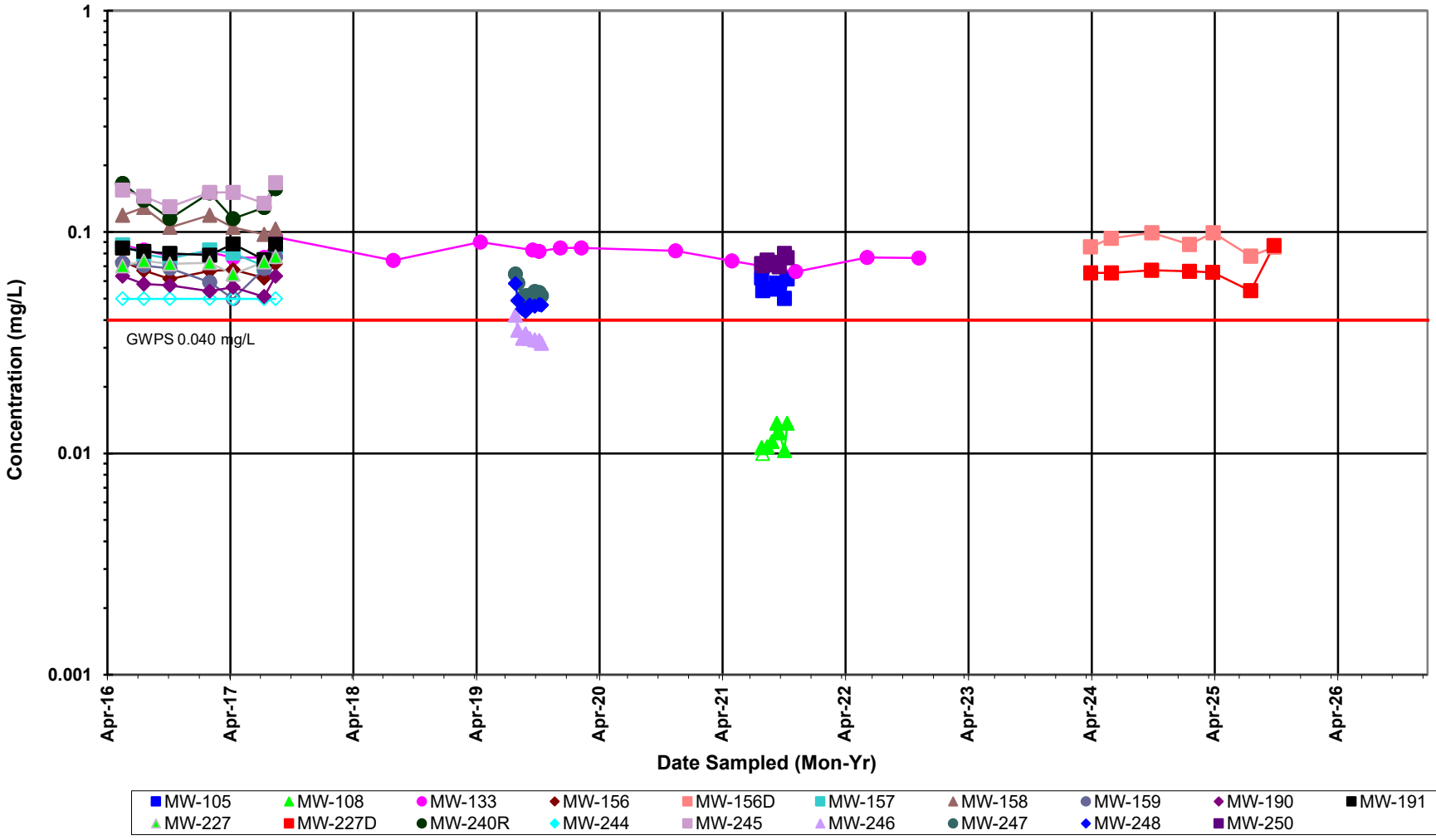
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 16A - LITHIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

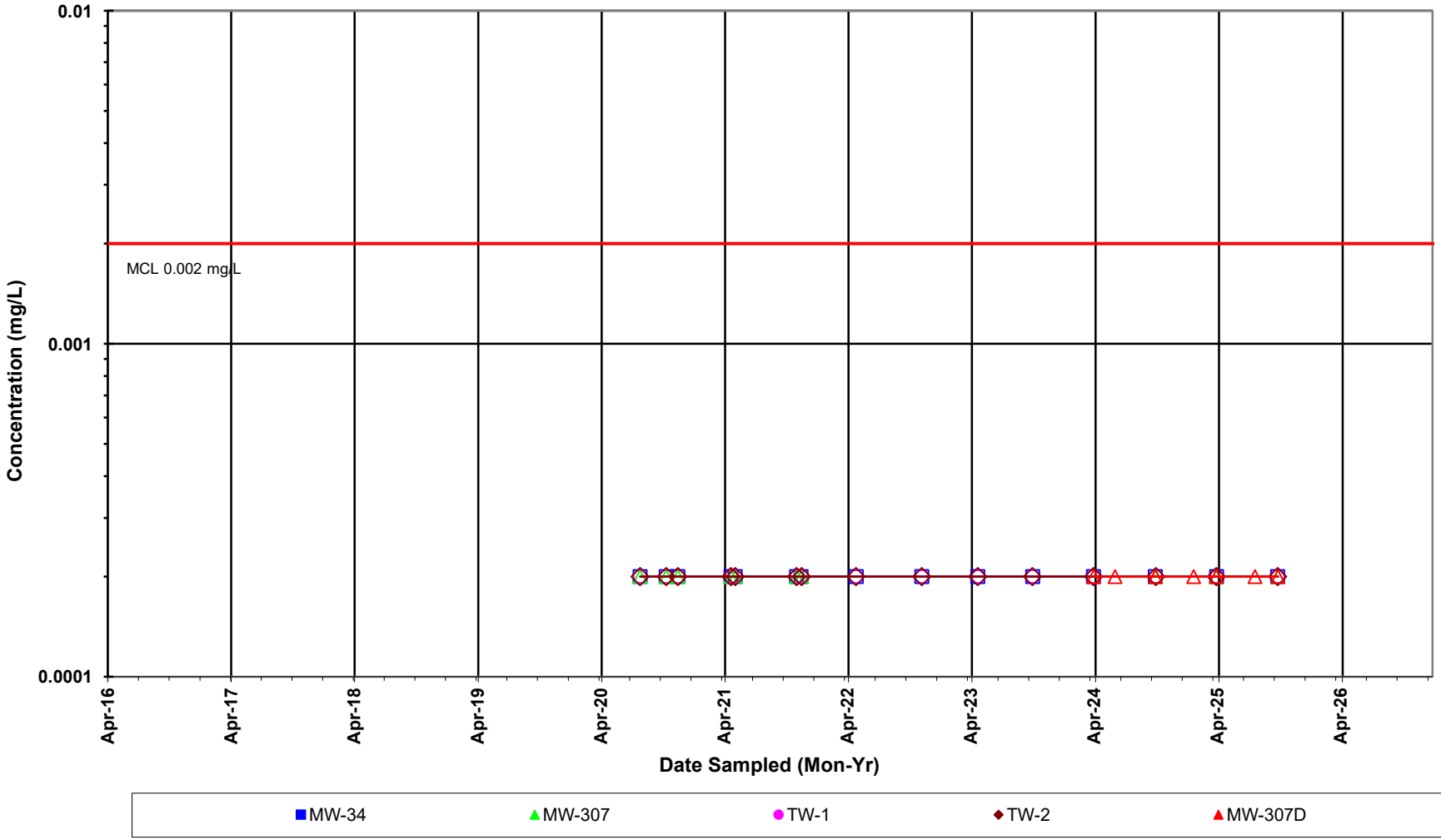
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 16B - LITHIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

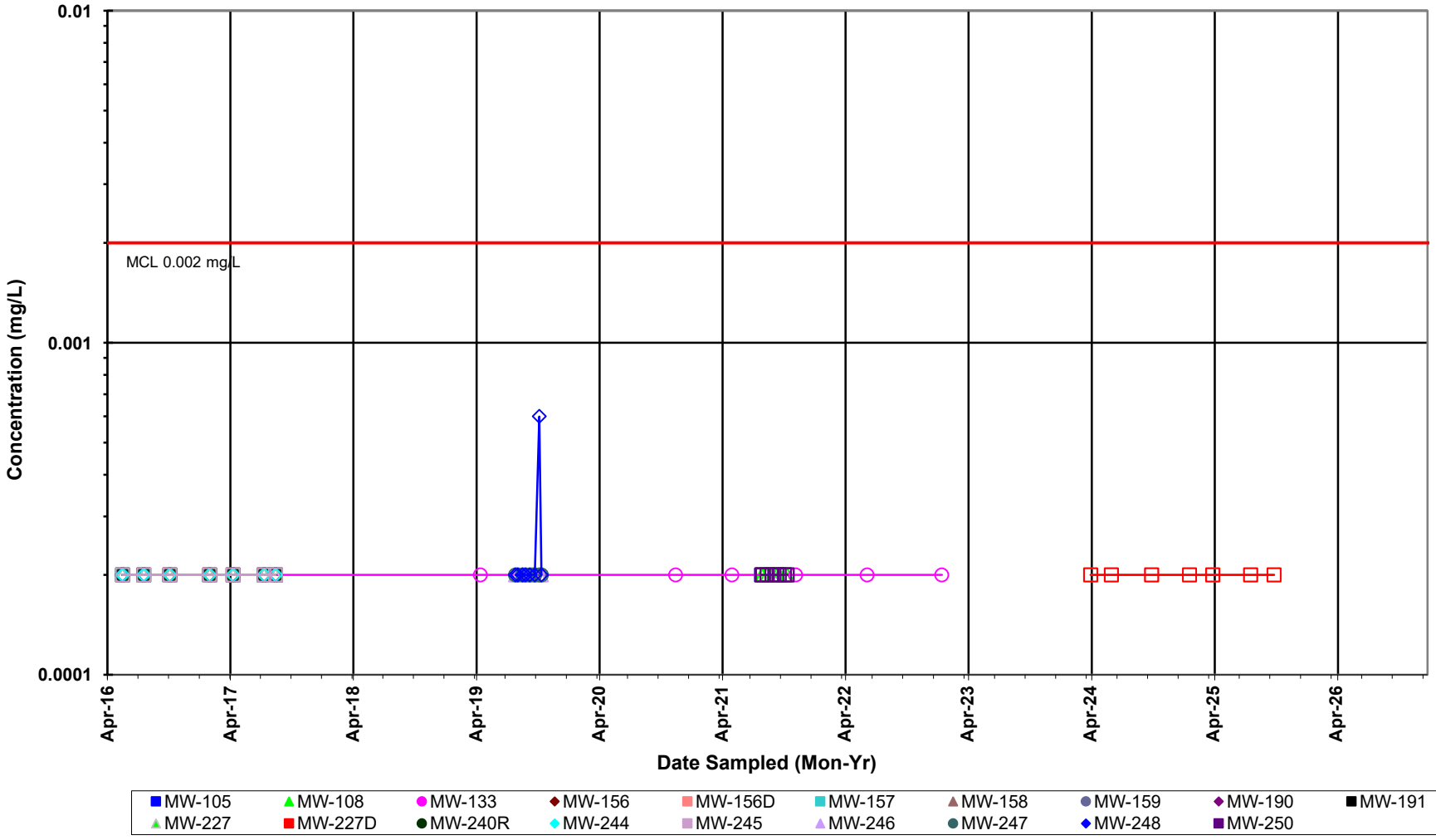
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 17A - MERCURY - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

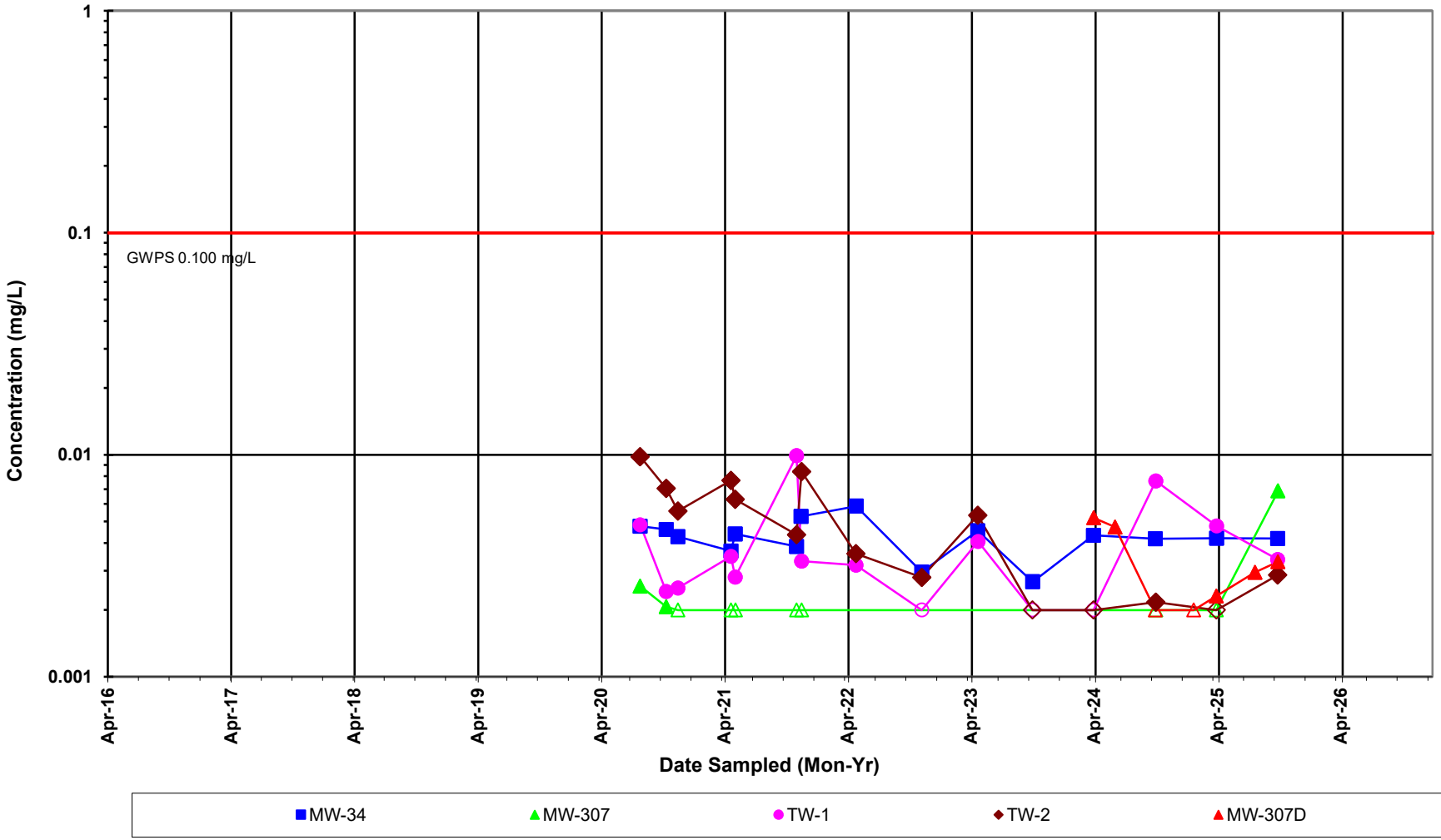
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 17B - MERCURY - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

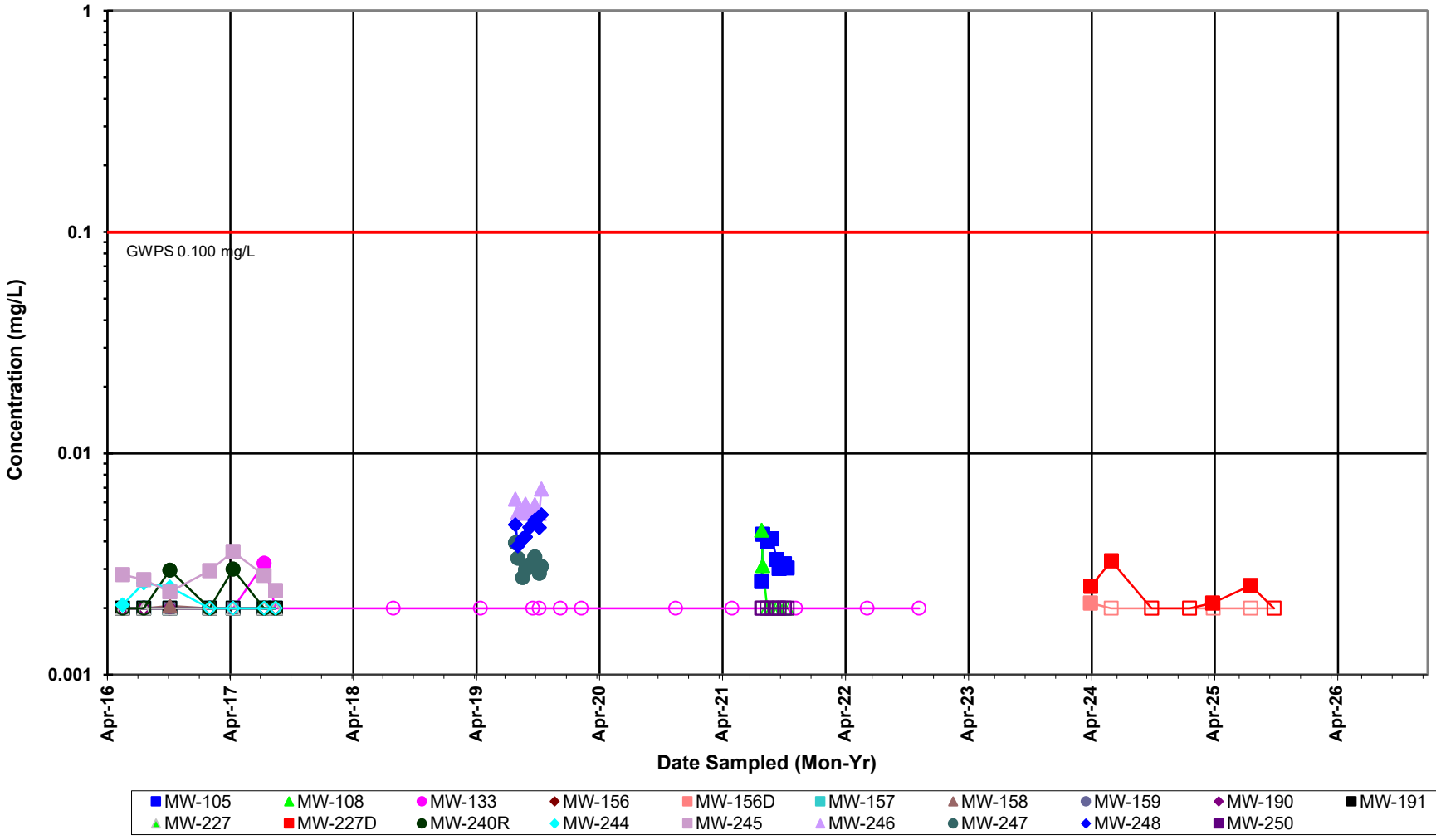
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 18A - MOLYBDENUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

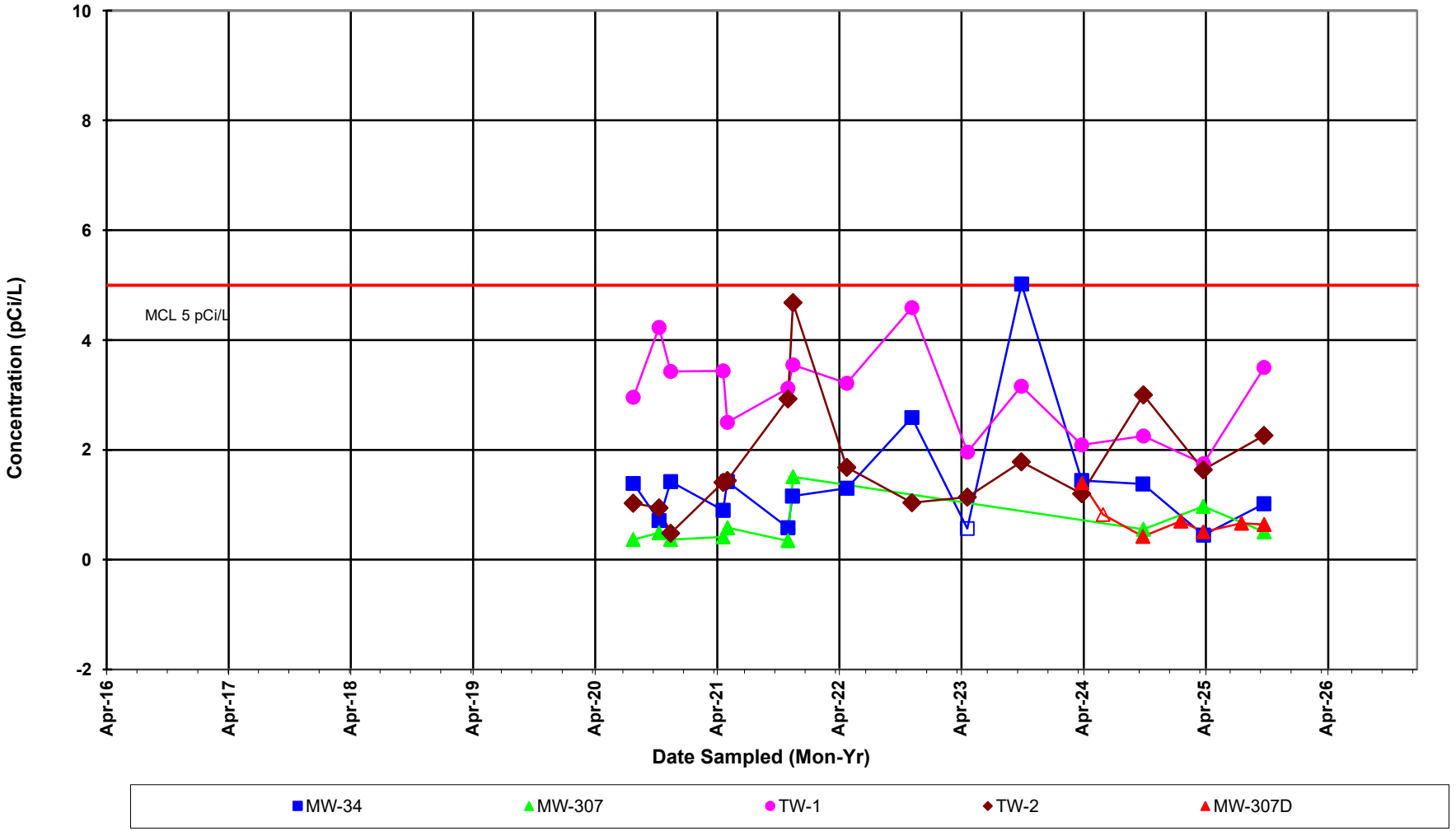
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 18B - MOLYBDENUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

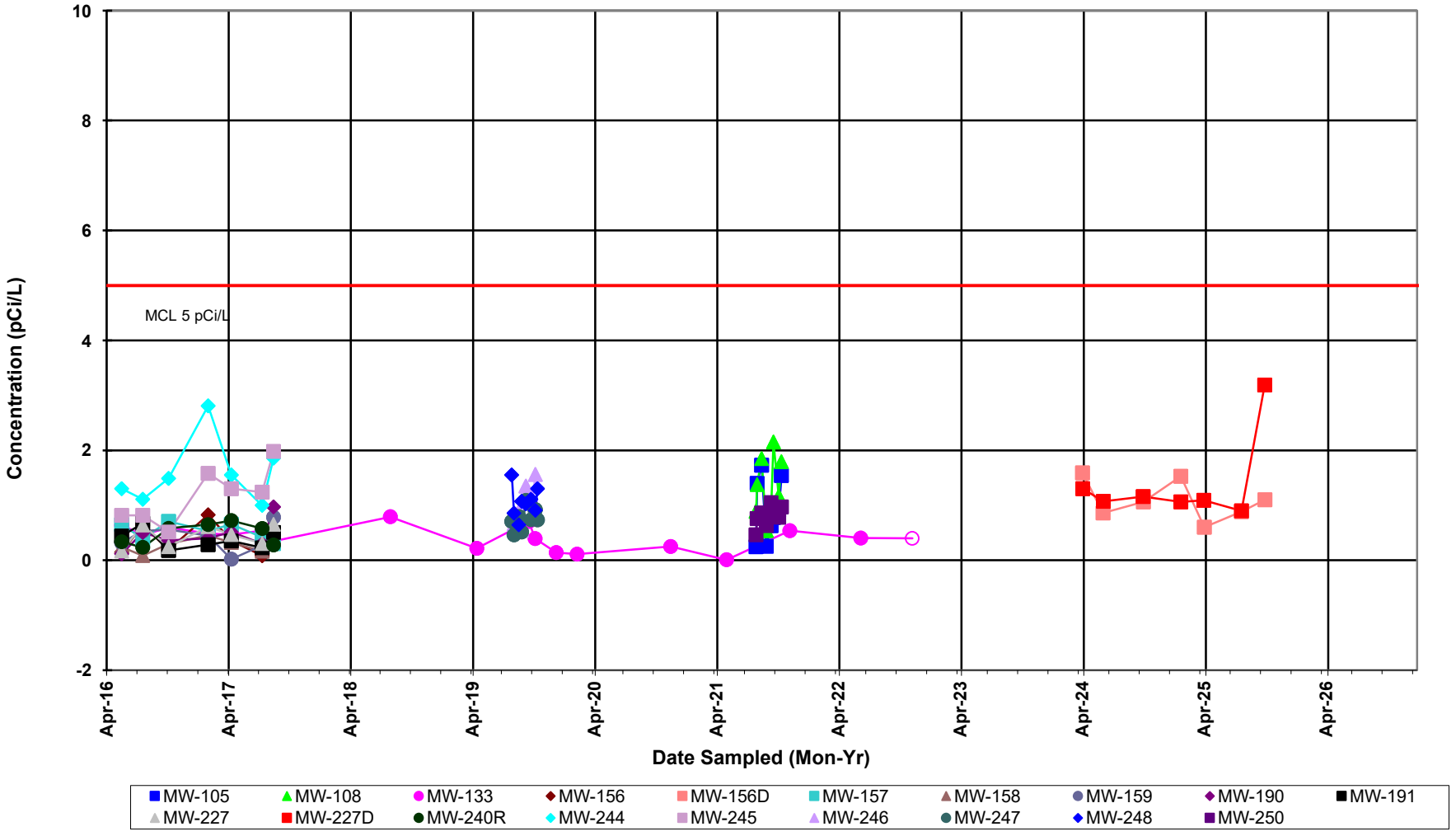
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 19A - RADIUM-226 & 228 - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

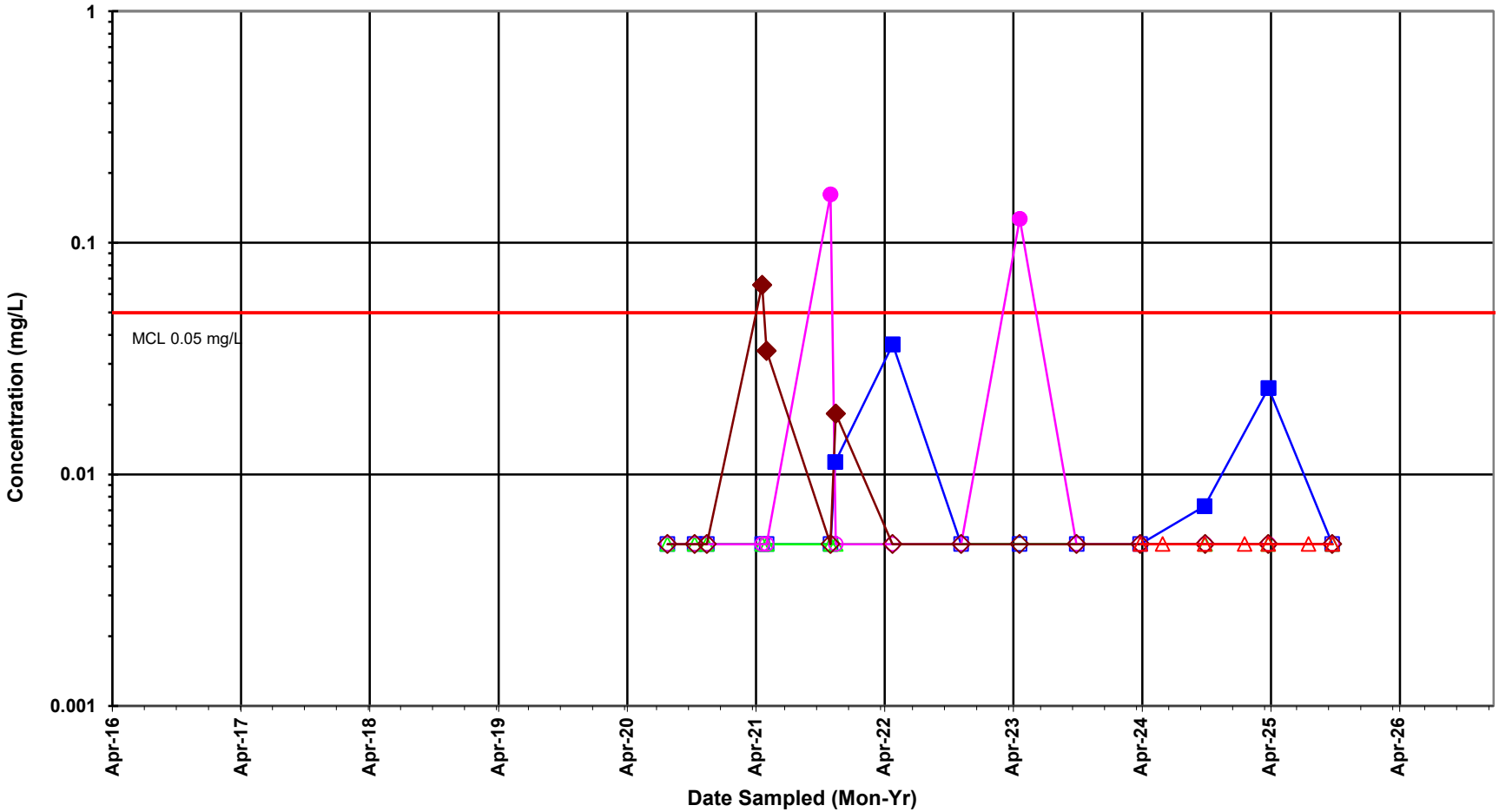
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 19B - RADIUM-226 & 228 - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

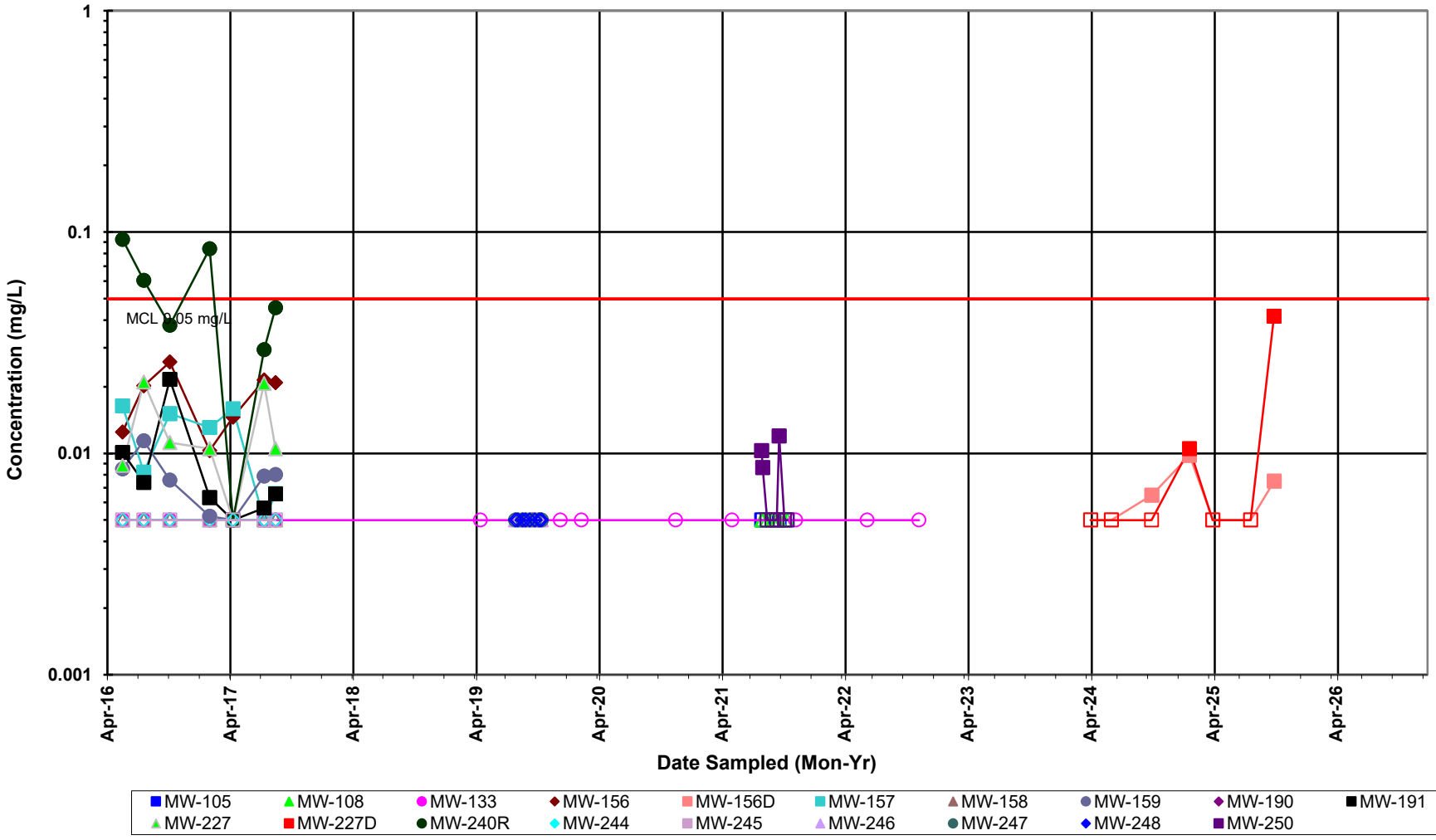
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 20A - SELENIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

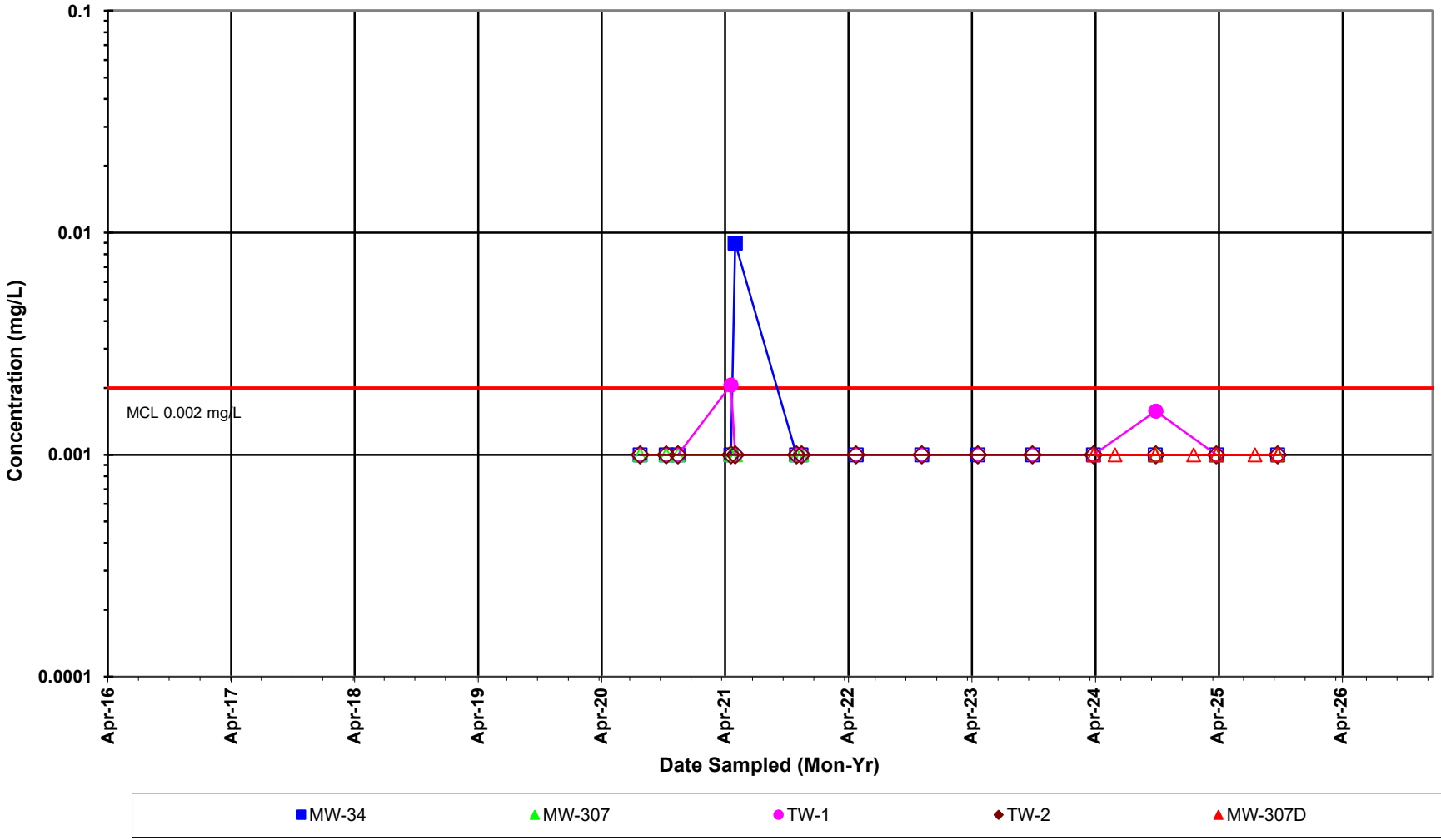
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 20B - SELENIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

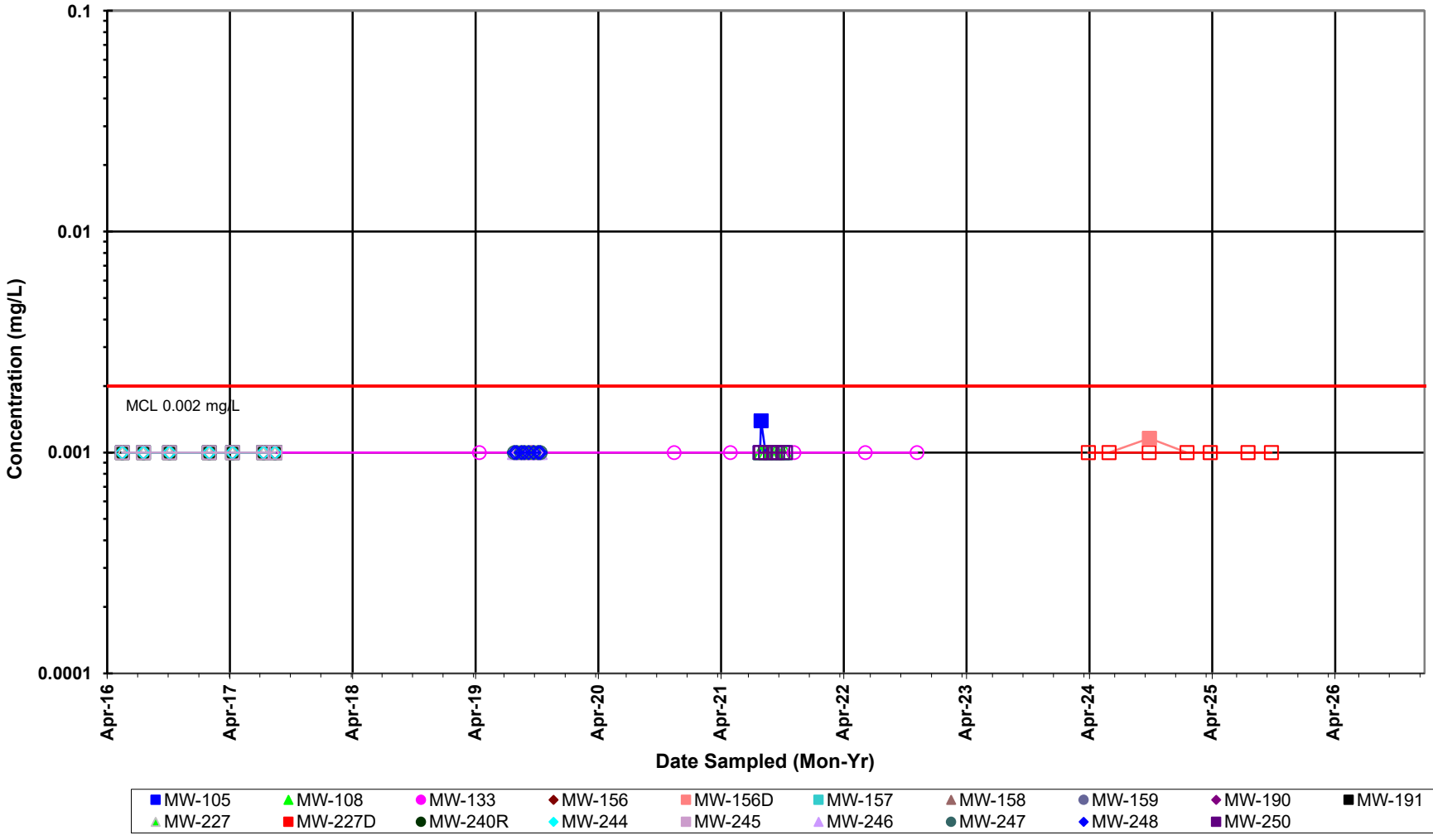
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 21A - THALLIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 21B - THALLIUM - MONOFILL WELLS

Appendix D

Alternate Source Demonstration

Alternate Source Demonstration for the WSEC CCR Monofill

Permit 78-SDP-26-06P
Walter Scott, Jr. Energy Center
Council Bluffs, Iowa

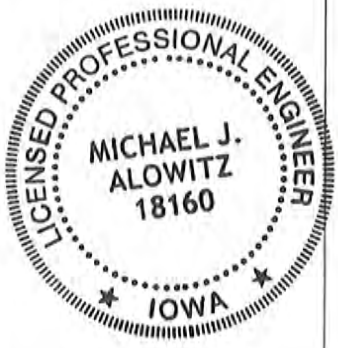
MidAmerican Energy Company

January 26, 2026

→ The Power of Commitment

Certification

Alternate Source Demonstration
for the WSEC CCR Monofill
Walter Scott, Jr. Energy Center
Council Bluffs, Iowa
MidAmerican Energy Company



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Michael J. Alowitz, P.E. — Date: 1/26/2026

License Number: 18160

My license renewal date is: December 31, 2026

Pages or sheets covered by this seal: Entire Document

Contents

Certification ii

1. Introduction 1

2. Description of Statistically Significant Increases 1

2.1 Monitoring Well MW-245 Calcium and Sulfate 2

2.2 Monitoring Well MW-248 Boron 2

3. Description of WSEC Monofill Alternate Source Demonstration 3

3.1 Natural Variability 3

3.2 Groundwater Flow Direction 3

3.3 Conclusion 4

4. Summary 4

5. References 4

Table index

Table 1 Baseline UPLs for Upgradient/Background Monitoring Wells

Figure index

Figure 1 Site Map and Monitoring Network

Figure 2 Aerial Photo and Background Monitoring Well Locations

Figure 3 Groundwater and Missouri River Hydrograph

Appendices

Appendix A Monofill Leachate Data

Appendix B Time-Series Graphs

Appendix C Box Plots for Background Monitoring Wells

Appendix D Groundwater Flow Maps

1. Introduction

This Alternate Source Demonstration (ASD) Report was prepared by GHD Services Inc. (GHD) on behalf of MidAmerican Energy Company (MidAmerican) in compliance with the Federal Coal Combustion Residual (CCR) rule (40 Code of Federal Regulations [CFR] Part 257) for the Walter Scott, Jr. Energy Center (WSEC) CCR Monofill. The WSEC Monofill is located in the southwest quarter of Section 31, Township 74 North, and Range 43 West; the northwest quarter of Section 6, Township 73 North, and Range 43 West; and the northeast quarter of Section 1, Township 73 North, and Range 44 West in Pottawattamie and Mills counties, Iowa.

The Monofill is permitted under Iowa Department of Natural Resources (IDNR) Operating Permit No. 78-SDP-26-06P, originally issued May 2, 2007, and subsequent amendments. A renewed operating permit was issued January 12, 2018, and incorporated previous amendments. The Site was developed as a Monofill in 2007 (Cell 1) and began receiving CCR in September 2007. The Monofill was constructed with a composite liner system including a 2-foot compacted clay liner and 60-mil high density polyethylene (HDPE) plastic liner. Additional cells were added after 2007 and include Cells 2, 3S, and 3N (2008), Cell 4 (2010), Cell 5 (2011), Cell 6 (2012), Cell 7 (2016), Cell 8 (2020), and Cell 9 (2022).

As described in 40 CFR §257.94(e)(2), statistically significant differences from background levels for a constituent may be evaluated to demonstrate that a source other than the CCR unit has caused the statistically significant difference from background or resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The purpose of this Report is to describe the ASD for statistically significant increases (SSIs) identified at the WSEC CCR Monofill.

2. Description of Statistically Significant Increases

In December 2025, semiannual and verification groundwater sampling events under the detection monitoring program were completed at the WSEC Monofill. Several SSIs were identified in the 2025 monitoring results, some of which were evaluated previously and identified to be unrelated to a release from the Monofill in ASD reports prepared by Terracon and GHD. This Report reviews the basis for the earlier ASDs and reconfirms the validity of the findings for sulfate and calcium at monitoring well MW-245. This Report also addresses an SSI identified during 2025 for boron at monitoring well MW-248.

The original baseline samples for monitoring well MW-245 were collected between March 2016 and August 2017. Since October 2017, the wells have been sampled semiannually under the detection monitoring program through the October 2025 sampling event. The original baseline samples for monitoring well MW-248 were collected between July and October 2019; the original baseline period for monitoring well MW-248 was completed during an abbreviated period of 77 days to accommodate expansion of the Monofill to include Cell 8. Monitoring well MW-248 has been sampled under the detection monitoring program since October 2019.

Data from monitoring wells MW-245 and MW-248 are compared to the concentrations from background wells TW-1, TW-2, MW-34, and MW-307. The baseline samples were completed at new background monitoring wells TW-1, TW-2, and MW-34 between July 2020 and April 2022. Seven sampling events were completed at new background monitoring well MW-307 between 2020 and 2021; the eighth baseline sample at monitoring well MW-307 was collected in October 2024 because the well had insufficient water for sampling due to drought conditions during 2022 through the April 2024 monitoring event. The Monofill extent and nearby monitoring well locations are shown on Figure 1. Figure 2 shows the Monofill extent and monitoring network, including the background monitoring wells located northeast of the Monofill.

The method to establish upgradient/background concentrations at the WSEC CCR Monofill is Upper Prediction Limits (UPLs). UPLs for the upgradient/background monitoring wells were provided in the 2022 Annual Groundwater Monitoring and Corrective Action Report (GHD, 2023); where trends were observed in the baseline data, the minimum and maximum values are provided in lieu of UPLs. The UPLs for the background/upgradient monitoring wells are provided in Table 1.

2.1 Monitoring Well MW-245 Calcium and Sulfate

During the baseline data collection period (March 2016 through August 2017), no trend was observed for calcium concentrations at monitoring well MW-245. An intra-well UPL established at 198 milligrams per liter (mg/L) for monitoring well MW-245 calcium. During the October 2025 and December 2025 events calcium concentrations were 232 and 212 mg/L, respectively. These results are above the calculated UPL but within the range of calcium UPLs for the upgradient wells (89.7 to 265 mg/L). During the baseline data collection period, groundwater flow was primarily from the southeast toward the northwest. Groundwater flow during the past two monitoring events when the SSI was verified was toward the northeast and southeast. Due to variability of groundwater flow direction, monitoring wells are not monitoring the same groundwater that was monitored during the baseline period. The average calcium concentration from the leachate system is 140 mg/L; this is less than the calcium concentrations detected at monitoring well MW-245. The Monofill leachate data are provided in Appendix A. Based on these concentrations, Monofill leachate is not the source of the calcium SSIs at monitoring well MW-245. Elevated levels of calcium at monitoring well MW-245 are attributed to natural variability in groundwater quality and variations in groundwater flow directions.

During the baseline data collection period an increasing trend was identified for sulfate at monitoring well MW-245. The baseline concentration range for sulfate at monitoring well MW-245 is 226 to 294 mg/L. During the two most recent monitoring events, the sulfate concentrations were 376 and 383 mg/L, respectively. These results exceed the monitoring well MW-245 baseline range but are within range of the sulfate UPLs for the upgradient wells (6.82 to 1142 mg/L).

The calcium and sulfate SSIs at monitoring well MW-245 are due to natural variability in groundwater quality due to variations in groundwater flow direction.

2.2 Monitoring Well MW-248 Boron

During the compressed baseline data collection period (July through October 2019), there were fewer than four detections of boron at monitoring well MW-248, so no trend was established. The calculated intra-well UPL for boron at monitoring well MW-248 is <0.200 mg/L. During the October 2025 detection and December 2025 verification sampling events, the boron results were 0.224 and 0.205 mg/L, respectively. The samples exceed the established intra-well UPL of <0.200 mg/L for boron but are within range of the boron UPLs for the upgradient wells (0.194 to 0.553 mg/L).

The detected concentrations of boron at monitoring well MW-248 are within the range of the upgradient wells, and the upgradient wells have not been affected by any release from the CCR. This makes it unlikely that elevated concentrations at monitoring well MW-248 are from a release from site. Instead, elevated levels of boron at monitoring well MW-248 are attributed to natural variability in groundwater quality.

3. Description of WSEC Monofill Alternate Source Demonstration

ASDs of natural variability in groundwater and groundwater flow direction changes have been identified for the observed SSIs at the Monofill. Natural variability in groundwater concentrations and groundwater flow direction changes were identified as ASDs for past SSIs and continue to affect groundwater at the Monofill.

3.1 Natural Variability

Temporal and spatial variability in background water quality is present in the background monitoring wells (MW-34, MW-307, TW-1, and TW-2). Time-series graphs for the upgradient/background monitoring wells and the Monofill monitoring wells are provided in Appendix B. Box plots for the upgradient/background monitoring wells are provided in Appendix C. The variability in mean concentrations and concentration ranges indicate that significant spatial variability exists for calcium, sulfate, and boron in background groundwater. The variability in these upgradient/background monitoring wells is not attributable to a release from a CCR unit. Groundwater flow direction at the Monofill has exhibited significant variability since sampling was initiated in 2016 (Terracon, 2021; Terracon, 2022; GHD, 2023). Groundwater flow maps for the Monofill monitoring events conducted between 2016 and December 2025 are provided in Appendix D.

During the baseline period for the upgradient/background monitoring wells, increasing trends were identified for sulfate at well TW-1 and for calcium at well TW-2 (GHD, 2023). For calcium, wells TW-1 and MW-34 collectively have five different instances of consecutive samples with a difference greater than 35 mg/L, and well TW-2 has consecutive samples with a difference of 96 mg/L. For sulfate, well TW-1 and TW-2 have six separate consecutive samples with variations exceeding 100 mg/L, with three of those surpassing 300 mg/L change. For boron, between wells TW-1 and TW-2, there are at least three different cases of consecutive samples with a difference greater than 0.150 mg/L. These results show significant temporal variability at individual background monitoring well locations.

These data indicate both temporal and spatial variability in calcium, sulfate, and boron concentrations in groundwater from upgradient locations not influenced by the WSEC Monofill.

3.2 Groundwater Flow Direction

Groundwater flow direction at the Monofill has exhibited significant variability since sampling was initiated in 2016 (Terracon, 2021; Terracon, 2022; GHD, 2023). From March 2016 through December 2025, groundwater flow direction was observed as follows.

From March 2016 through August 2017, the groundwater flow direction was generally northwest. In October 2017, May 2018, October 2018, April 2019, and October 2019, groundwater flow direction was either reversed or variable when compared to the previous groundwater flow (March 2016 to August 2017). April and October 2020 had groundwater flow directions similar to the period from March 2016 to April 2017 (northwest). During subsequent sampling events up to October 2022, the groundwater flow was reversed again, trending southeast across the Site. 2022 flow direction was variable but mostly reversed (southeast). January 2023 had groundwater flow toward the river (northwest), but April 2023 was reversed again (southeast). Groundwater flow remained toward the southeast until September 2024, when flow was primarily trending northeast; December 2024 saw flow toward the Missouri River to the northwest. For 2025, groundwater flow generally maintained an east/southeast direction. Groundwater flow maps for the Monofill monitoring events conducted between 2016 and December 2024 are provided in Appendix C.

The stage of the Missouri River impacts groundwater flow direction across the Site. The United States Army Corps of Engineers (USACE) recorded 2018 and 2019 as higher than average runoff seasons (USACE, 2022). Due to this increase in volume and the interconnectedness of the river and groundwater, the elevation of the Missouri River was higher than the groundwater elevation at the Site, which caused reversal in groundwater flow. Following October 2019,

groundwater elevations started to decrease significantly (Figure 3). The USACE reported reduced discharges from the Missouri River reservoir system beginning in November 2019 (USACE, 2019) and continued to report lower runoff forecasts due to drought conditions (USACE, 2021). The northwest trend of groundwater flow in April and October 2020 can be attributed to this lower river stage reported by USACE. This is also reflected in the decrease in groundwater elevations (Figure 3). In December 2024, the U.S. Drought Monitor showed 98.57 percent of land area in Pottawattamie County in a D1 Moderate Drought. As of December 2025, no part of Pottawattamie County is in drought conditions.

During the baseline monitoring events, groundwater flow direction was generally to the northwest or west to northwest, however, during subsequent monitoring events, groundwater flow direction was to the east to southeast or has been variable and has not returned to the direction that was observed during the background monitoring events. Due to the variability of the groundwater flow direction, the monitoring wells are not monitoring the same groundwater that was monitored during the baseline evaluations.

3.3 Conclusion

As outlined in this ASD, SSIs for calcium and sulfate at monitoring well MW-245 and boron at monitoring well MW-248 are not a result of a release from the Monofill but rather are due to natural variability in groundwater amplified by changes in groundwater flow direction.

Temporal and spatial variability in groundwater quality were observed for the Appendix III parameters in the upgradient/background wells (MW-34, MW-307, TW-1, and TW-2). There is variability in groundwater flow direction during each of the sampling events due to the varying stage of the Missouri River and previous drought conditions in the area.

The identified SSIs are attributed to natural variability in groundwater quality and variations in groundwater flow direction.

4. Summary

Verified SSIs for calcium and sulfate at monitoring well MW-245, and boron at monitoring well MW-248 relative to the intra-well baseline data were confirmed in the 2025 groundwater monitoring results. However, these SSIs are due to natural variability of groundwater quality and variability in groundwater flow direction.

5. References

– GHD, 2024. Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill. Walter Scott, Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. January 31, 2024.
– GHD, 2024. Alternate Source Demonstration for the WSEC CCR Monofill. Walter Scott, Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. August 20, 2024.
– GHD, 2023. Annual Groundwater Monitoring and Corrective Action Report for the WSEC CCR Monofill. Walter Scott, Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. January 31, 2023.
– MWH, 2006. Hydrogeological Investigation Report. Coal Combustion Residue Monofill, Council Bluffs Energy Center, Council Bluffs, Iowa. September 2006.
– Terracon, 2020. Alternative Source Determination - December 2019, Walter Scott, Jr. Energy Center Monofill, Council Bluffs, Iowa. January 20, 2020.

- Terracon, 2020. Annual Groundwater Monitoring and Corrective Action Report. Walter Scott, Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SCP-26-06P. January 20, 2020.
- Terracon, 2021. Alternative Source Determination - June 2021. Walter Scott, Jr. Energy Center Monofill, Council Bluffs, Iowa. September 27, 2021.
- Terracon, 2022. 2021 Annual Groundwater Monitoring and Corrective Action Report. Walter Scott, Jr. Energy Center, Council Bluffs, Iowa, Permit 78-SDP-26-06P. January 31, 2022.
- United States Army Corps of Engineers (USACE), 2019. Missouri River Water Management News. Northwestern Division Website: https://www.nwd.usace.army.mil/MRWM/MRWM-News/Year/2019/.
- United States Army Corps of Engineers (USACE), 2021. *Missouri River Water Management News*. Northwestern Division Website: https://www.nwd.usace.army.mil/MRWM/MRWM-News/Year/2021/.
- United States Army Corps of Engineers (USACE), 2022. Technical Report - Hydrologic Statistics. Missouri River Basin Water Management Division, Omaha, Nebraska. May 2022.

Tables

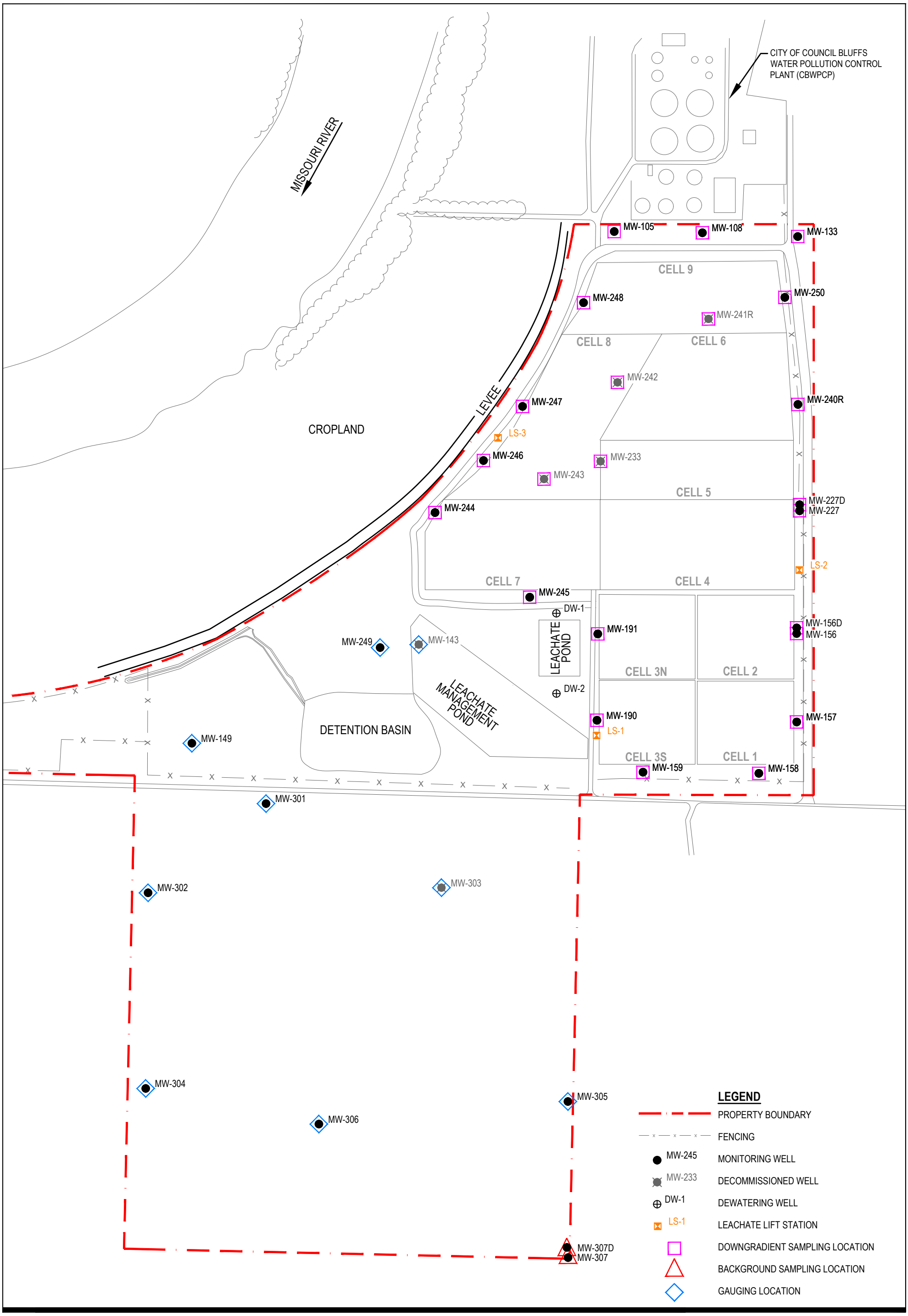
Table 1

Baseline UPLs for Upgradient/Background Monitoring Wells
Walter Scott, Jr. Energy Center - CCR Monofill
Council Bluffs, Iowa

Constituent	Units	TW-1	TW-2	MW-34	MW-307
Boron	mg/L	0.553	0.544	0.196	0.194
Calcium	mg/L	265	89.7 - 228 **(Increasing)**	182	120
Chloride	mg/L	<5.00 - 56.9 **(Increasing)**	64.1	9.7	<5.00
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500
pH, lab	Standard Units	6.63 - 7.45	6.80 - 7.52	6.60 - 7.80	6.81 - 7.56
Sulfate	mg/L	6.82 - 578 **(Increasing)**	1142	118	25.2
TDS	mg/L	1643	1766	731	464

Notes:
TDS - Total dissolved solids.
UPL - Upper prediction limit.
<0.500 - Not detected at the associated reporting limit.
Constituents with increasing baseline trends denoted with red font.

Figures



MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

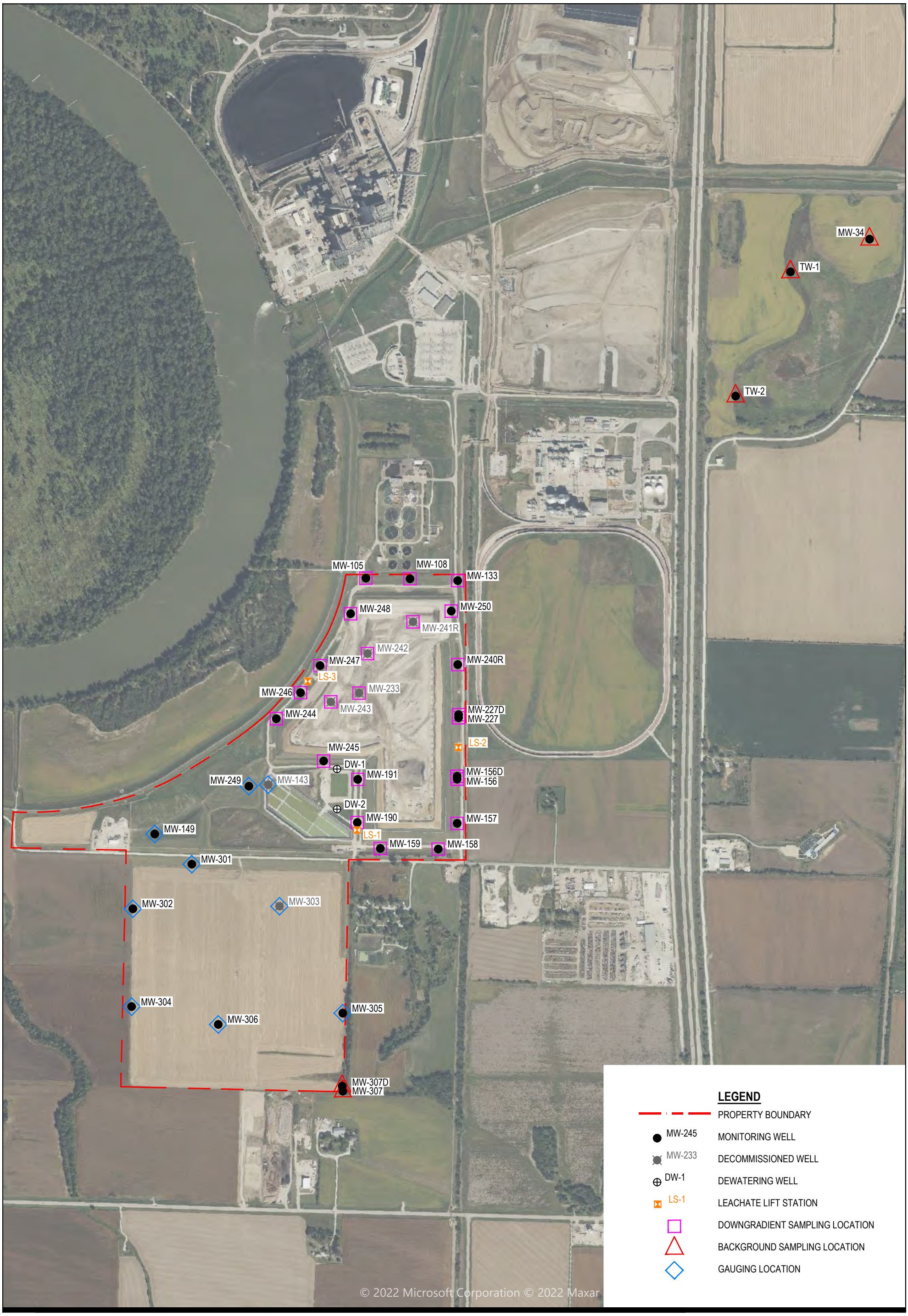
Project No. **12592594**
Date **June 2025**

SITE MAP AND MONITORING NETWORK

FIGURE 1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT-3(r1)\12592594-GHD-00-00-RPT-EN-D101.2_GB-003(r1).dwg
Plot Date: 16 June 2025 2:54 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 500 1000 ft

1" = 1000 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

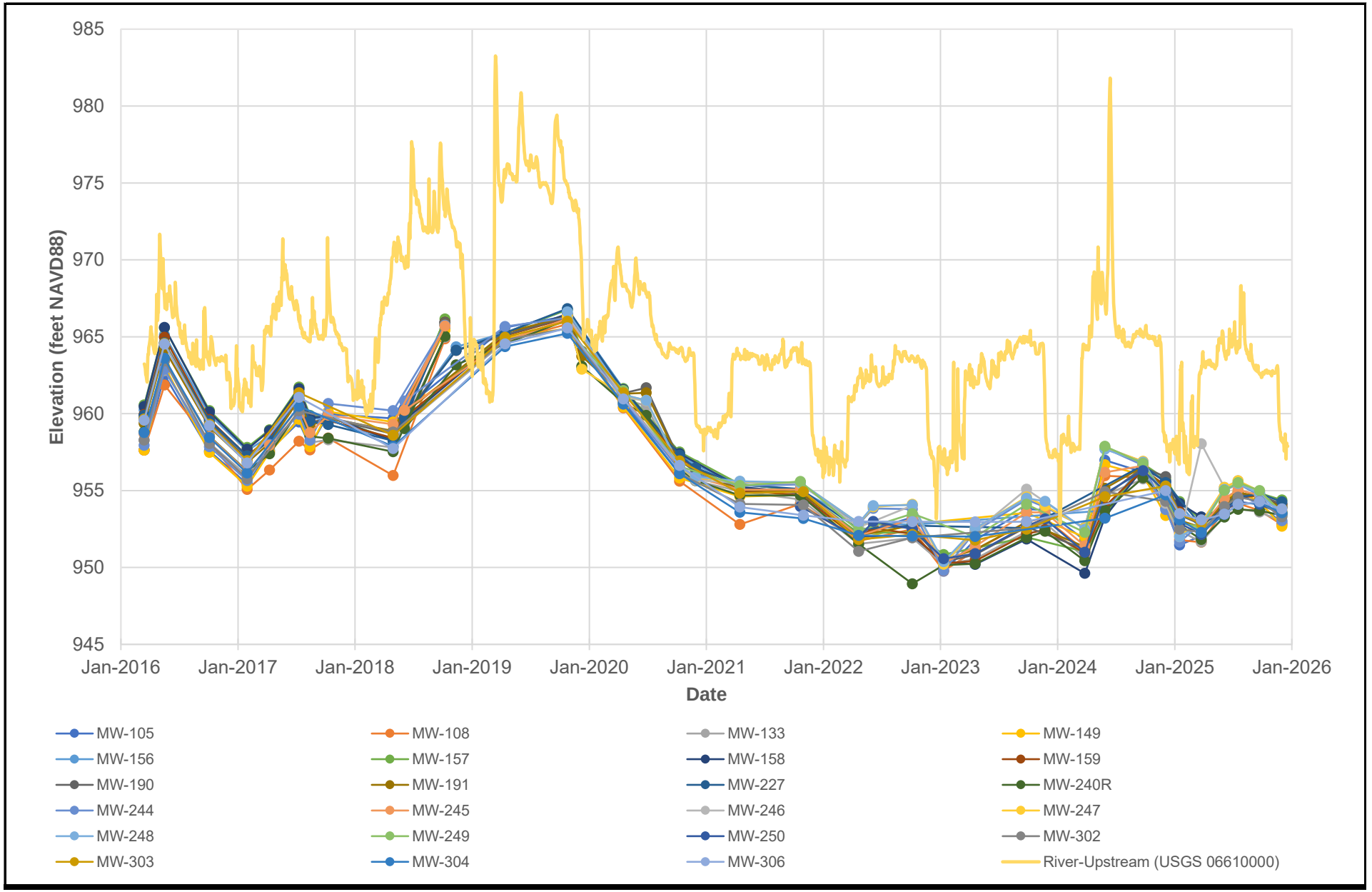
AERIAL PHOTO AND BACKGROUND MONITORING WELL LOCATIONS

Project No. **12592594**
Date **June 2025**

FIGURE 2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT-3(r1)\12592594-GHD-00-00-RPT-EN-D101.3_GB-003(r1).dwg
Plot Date: 16 June 2025 2:56 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER AND MISSOURI RIVER HYDROGRAPH

Project No. **12592594**
Date **Dec. 29, 2025**

FIGURE 3

Appendices

Appendix A

Monofill Leachate Data

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location: / Sample Date:	Units	Lift Station 1 3/18/2016	Lift Station 1 5/18/2016	Lift Station 1 7/20/2016	Lift Station 1 10/6/2016	Lift Station 1 1/31/2017	Lift Station 1 4/12/2017	Lift Station 1 7/12/2017	Lift Station 1 8/16/2017	Lift Station 1 10/10/2017	Lift Station 1 5/3/2018
Parameters											
Appendix III											
Boron	mg/L	1.4	0.88	0.811	1.08	1.82	1.54	1.94	1.74	1.57	1.99
Calcium	mg/L	135	205	281	229	80.7	150	116	93.3	148	126
Chloride	mg/L	281	247	148	206	415	282	266	324	269	318
Fluoride	mg/L	0.966	<0.500	<0.500	0.512	<0.500	0.667	<0.500	0.614	0.534	0.913
pH, lab	s.u.	10.2	11.5	10.9	10.7	11.3	10.7	9.8	9.9	10	9
Sulfate	mg/L	4670	3010	2760	5900	5380	3950	4720	4900	4730	4840
Total dissolved solids (TDS)	mg/L	8600	6950	5340	7480	10000	8200	8500	9480	8520	9180
Appendix IV											
Antimony	mg/L	0.00111	<0.001	<0.001	0.00129	0.00124	<0.001	0.00121	0.00125	--	--
Arsenic	mg/L	0.0261	0.0170	0.0133	0.0170	0.0210	0.0153	0.0174	0.0155	--	--
Barium	mg/L	0.0621	0.0681	0.0945	0.0841	0.0525	0.0526	0.0507	0.0504	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--
Cadmium	mg/L	0.000856	<0.0005	<0.0005	0.000622	0.00103	0.000782	0.000761	<0.0005	--	--
Chromium	mg/L	0.0352	0.0583	0.0225	0.133	0.0189	0.0210	0.0306	0.0184	--	--
Cobalt	mg/L	0.00129	0.000613	<0.0005	0.000619	0.000976	0.000765	0.000777	0.000780	--	--
Lead	mg/L	<0.00250	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	--	--
Lithium	mg/L	<0.250	<0.200	0.110	<0.200	<0.300	<0.150	<0.250	<0.250	--	--
Mercury	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	--
Molybdenum	mg/L	4.32	2.30	2.00	3.48	4.74	3.86	4.17	3.79	--	--
Radium-226 & 228	pCi/L	0.446	0.671	0.653	0.790	0.501	0.502	1.07	0.558	--	--
Selenium	mg/L	0.280	0.185	0.150	0.234	0.375	0.305	0.254	0.260	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location: / Sample Date:	Units	Lift Station 1 10/10/2018	Lift Station 1 4/18/2019	Lift Station 1 10/30/2019	Lift Station 1 4/21/2020	Lift Station 1 10/14/2020	Lift Station 1 4/21/2021	Lift Station 1 10/28/2021	Lift Station 1 4/29/2022	Lift Station 1 10/10/2022	Lift Station 1 4/25/2023
Parameters											
Appendix III											
Boron	mg/L	3.73	1.17	1.75	1.65	1.63	1.53	2.01	1.81	1.69	2.36
Calcium	mg/L	199	190	508	186	159	170	138	127	69.1	104
Chloride	mg/L	281	291	272	312	278	233	263	271	288	289
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	<1.00	0.687	4.14	4.98	6.35	<1.00
pH, lab	s.u.	11.1	9.2	11.7	11.8	11.1	11.3	11.4	10.9 J	11.7 J	11.0 J
Sulfate	mg/L	3540	3910	3320	3890	5040	3930	3700	4970	3850	5500
Total dissolved solids (TDS)	mg/L	7280	6840	7240	7820	8100	6760	5360	7390	7310	8020
Appendix IV											
Antimony	mg/L	--	--	--	--	--	--	--	--	--	0.00200 J+
Arsenic	mg/L	--	--	--	--	--	--	--	--	--	0.0474
Barium	mg/L	--	--	--	--	--	--	--	--	--	0.0325
Beryllium	mg/L	--	--	--	--	--	--	--	--	--	<0.00100
Cadmium	mg/L	--	--	--	--	--	--	--	--	--	0.00282
Chromium	mg/L	--	--	--	--	--	--	--	--	--	0.00546
Cobalt	mg/L	--	--	--	--	--	--	--	--	--	0.00151
Lead	mg/L	--	--	--	--	--	--	--	--	--	<0.000500
Lithium	mg/L	--	--	--	--	--	--	--	--	--	0.0824
Mercury	mg/L	--	--	--	--	--	--	--	--	--	<0.000200
Molybdenum	mg/L	--	--	--	--	--	--	--	--	--	6.27
Radium-226 & 228	pCi/L	--	--	--	--	--	--	--	--	--	<0.346
Selenium	mg/L	--	--	--	--	--	--	--	--	--	0.420
Thallium	mg/L	--	--	--	--	--	--	--	--	--	<0.00100

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location:		Lift Station 1	Lift Station 1	Lift Station 1	Lift Station 1	Lift Station 1	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2
Sample Date:	**Units**	**10/4/2023**	**4/2/2024**	**10/2/2024**	**4/2/2025**	**9/30/2025**	**3/18/2016**	**5/18/2016**	**7/20/2016**	**10/6/2016**	**1/31/2017**
Parameters											
Appendix III											
Boron	mg/L	1.81	2.12	1.84	1.78	1.74	1.81	1.68	1.7	1.51	1.65
Calcium	mg/L	87.4	50.4	89.2	51.5	88.6	123	144	119	109	74.2
Chloride	mg/L	293	311	319	347 J-	375	438	710	592	633	635
Fluoride	mg/L	<1.00	<1.00	<1.00	<1.00 J	<1.00	<0.500	<0.500	<0.500	<0.500	13.5
pH, lab	s.u.	11.8 J	11.2 J	12.0 J	10.5 J	11.7 J	10.9	11.8	11.7	11.9	11.5
Sulfate	mg/L	3980	75.9 R	3250	3790 J-	3880	6000	6930	6750	7670	7440
Total dissolved solids (TDS)	mg/L	7010	7170	6320	7320 J-	8170	11500	13000	12600	12500	13500
Appendix IV											
Antimony	mg/L	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.001	<0.001	<0.001	<0.001	0.00113
Arsenic	mg/L	0.0371	0.0533	0.0229	0.0414	0.0205	0.0368	0.0160	0.0196	0.0156	0.0322
Barium	mg/L	0.0357	0.0262	0.0324	0.0316	0.0361	0.0569	0.0942	0.0807	0.0753	0.0482
Beryllium	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.00200	0.00116	0.00157	0.00183	0.00138	0.00124	0.000715	0.000602	0.000806	0.00124
Chromium	mg/L	<0.00500	<0.00500	<0.00500	0.00854	<0.00500	0.0402	0.0839	0.0452	0.0330	0.0210
Cobalt	mg/L	0.000945	0.00131	<0.000500	0.00179	0.000557	0.00193	0.000541	0.000614	0.000564	0.00157
Lead	mg/L	<0.000500	<0.000500	<0.000500	0.000584	<0.000500	<0.00250	<0.0005	<0.0005	<0.0005	<0.001
Lithium	mg/L	0.102	0.0788	0.112	0.0765	0.0684	<0.300	<0.300	<0.350	<0.400	<0.400
Mercury	mg/L	<0.000200	<0.000200	<0.000200	<0.000200 J	<0.000200	<0.0002	<0.0002	0.000267	<0.0002	<0.0002
Molybdenum	mg/L	4.96	6.34	4.23	1.45	3.86	5.81	4.32	4.27	4.58	5.43
Radium-226 & 228	pCi/L	<0.387	<1.13	0.712	0.199	0.545	0.495	0.399	0.114	1.71	1.17
Selenium	mg/L	0.371	0.315	0.350	0.321	0.277	0.408	0.370	0.384	0.370	0.425
Thallium	mg/L	<0.00100	<0.00100	0.00483	<0.00100	<0.00100	<0.001	<0.001	<0.001	<0.001	<0.001

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location: / Sample Date:	Units	Lift Station 2 4/12/2017	Lift Station 2 7/12/2017	Lift Station 2 8/16/2017	Lift Station 2 10/10/2017	Lift Station 2 5/3/2018	Lift Station 2 10/10/2018	Lift Station 2 4/18/2019	Lift Station 2 10/30/2019	Lift Station 2 4/21/2020	Lift Station 2 10/14/2020
Parameters											
Appendix III											
Boron	mg/L	2.57	2.03	2.28	1.67	1.81	1.42	2.06	2.38	2.97	2.66
Calcium	mg/L	106	68.8	36.4	180	155	152	93.3	210	93.7	28.6
Chloride	mg/L	608	629	607	514	644	357	471	183	487	586
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	0.698	<0.500	<0.500	<0.500	<0.500	<1.00
pH, lab	s.u.	10.3	11.4	11.4	11.1	9.3	9.6	10.1	9.2	10.6	11
Sulfate	mg/L	6520	6350	6610	6650	4950	4930	5210	2490	5880	7810
Total dissolved solids (TDS)	mg/L	13100	13000	13000	12200	8460	9200	9960	8640	11400	12500
Appendix IV											
Antimony	mg/L	<0.001	<0.001	<0.01	--	--	--	--	--	--	--
Arsenic	mg/L	0.0152	0.0186	0.0160	--	--	--	--	--	--	--
Barium	mg/L	0.0697	0.0529	0.0410	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
Cadmium	mg/L	0.000892	0.000920	<0.005	--	--	--	--	--	--	--
Chromium	mg/L	0.0613	0.0241	0.0190	--	--	--	--	--	--	--
Cobalt	mg/L	0.00111	0.000675	0.000668	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--
Lithium	mg/L	<0.350	<0.350	<0.350	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	0.000252	<0.0002	--	--	--	--	--	--	--
Molybdenum	mg/L	3.80	5.10	4.79	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.433	0.190	0.258	--	--	--	--	--	--	--
Selenium	mg/L	0.374	0.417	0.427	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	<0.001	<0.001	--	--	--	--	--	--	--

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location:		Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2	Lift Station 2
Sample Date:	**Units**	**4/21/2021**	**10/28/2021**	**4/29/2022**	**10/10/2022**	**4/25/2023**	**10/4/2023**	**4/2/2024**	**10/2/2024**	**4/2/2025**	**9/30/2025**
Parameters											
Appendix III											
Boron	mg/L	2.86	2.82	2.12	2.15	3.38	1.91	3.03	2.13	1.49	1.77
Calcium	mg/L	55	53.9	36.7	26.2	269	46.6	36.2	126	37.8	99.0
Chloride	mg/L	428	453	618	549	648	564	586	403	376 J-	447
Fluoride	mg/L	<0.500	11.9	12.8	14.7	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00
pH, lab	s.u.	11.3	11.3	11.1 J	10.7 J	10.6 J	10.1 J	9.8 J	11.4 J	9.8 J	11.9 J
Sulfate	mg/L	5660	5350	6530	5680	6200	5900	5570	4560	3990 J-	4120
Total dissolved solids (TDS)	mg/L	9400	9640	10500	11200	9750	10700	10200	7540	7500 J-	8550
Appendix IV											
Antimony	mg/L	--	--	--	--	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00800
Arsenic	mg/L	--	--	--	--	0.00733	0.0188	0.0251	0.00832	0.0386	0.00999
Barium	mg/L	--	--	--	--	0.0526	0.0229	0.0275	0.0421	0.0213	0.0435
Beryllium	mg/L	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	--	--	0.00179	0.00254	0.00157	0.00141	0.00194	0.00136
Chromium	mg/L	--	--	--	--	0.980	<0.00500	0.0272	0.00500	0.00624	0.00739
Cobalt	mg/L	--	--	--	--	0.00122	0.000824	0.00224	<0.000500	0.00165	<0.000500
Lead	mg/L	--	--	--	--	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	--	--	0.0147	0.0396	0.0744	0.0619	0.0869	0.0427
Mercury	mg/L	--	--	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200 J	<0.000200
Molybdenum	mg/L	--	--	--	--	4.19	5.22	8.46	3.86	1.50	3.31
Radium-226 & 228	pCi/L	--	--	--	--	<0.305	<0.369	<1.11	0.629	0.171	0.711
Selenium	mg/L	--	--	--	--	0.249	0.367	0.423	0.253	0.346	0.226
Thallium	mg/L	--	--	--	--	<0.00100	<0.00400	<0.00100	<0.00400	<0.00100	<0.00100

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location: / Sample Date:	Units	Lift Station 3 8/16/2017	Lift Station 3 10/10/2017	Lift Station 3 5/3/2018	Lift Station 3 10/10/2018	Lift Station 3 4/18/2019	Lift Station 3 10/30/2019	Lift Station 3 4/21/2020	Lift Station 3 10/14/2020	Lift Station 3 4/21/2021	Lift Station 3 10/28/2021
Parameters											
Appendix III											
Boron	mg/L	4.85	4.27	4.24	1.57	2.01	1.49	4.11	4.36	5.53	3.47
Calcium	mg/L	224	218	168	137	108	103	158	316	544	191
Chloride	mg/L	156	354	158	273	232	264	501	306	408	317
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.515	3.2
pH, lab	s.u.	8.8	11.4	8.7	10.3	11.5	11.8	10.6	11	11.6	11.3
Sulfate	mg/L	2120	4930	1940	3430	3440	4480	4190	3590	3920	2690
Total dissolved solids (TDS)	mg/L	5040	10200	3840	6520	6320	5580	9020	5710	7260	4260
Appendix IV											
Antimony	mg/L	<0.001	--	--	--	--	--	--	--	--	--
Arsenic	mg/L	0.00293	--	--	--	--	--	--	--	--	--
Barium	mg/L	0.0556	--	--	--	--	--	--	--	--	--
Beryllium	mg/L	<0.001	--	--	--	--	--	--	--	--	--
Cadmium	mg/L	<0.0005	--	--	--	--	--	--	--	--	--
Chromium	mg/L	0.0505	--	--	--	--	--	--	--	--	--
Cobalt	mg/L	0.000607	--	--	--	--	--	--	--	--	--
Lead	mg/L	<0.0005	--	--	--	--	--	--	--	--	--
Lithium	mg/L	<0.250	--	--	--	--	--	--	--	--	--
Mercury	mg/L	<0.0002	--	--	--	--	--	--	--	--	--
Molybdenum	mg/L	1.08	--	--	--	--	--	--	--	--	--
Radium-226 & 228	pCi/L	0.303	--	--	--	--	--	--	--	--	--
Selenium	mg/L	0.0623	--	--	--	--	--	--	--	--	--
Thallium	mg/L	<0.001	--	--	--	--	--	--	--	--	--

Notes:
J - Estimated concentration.
R - Rejected.

Table 1

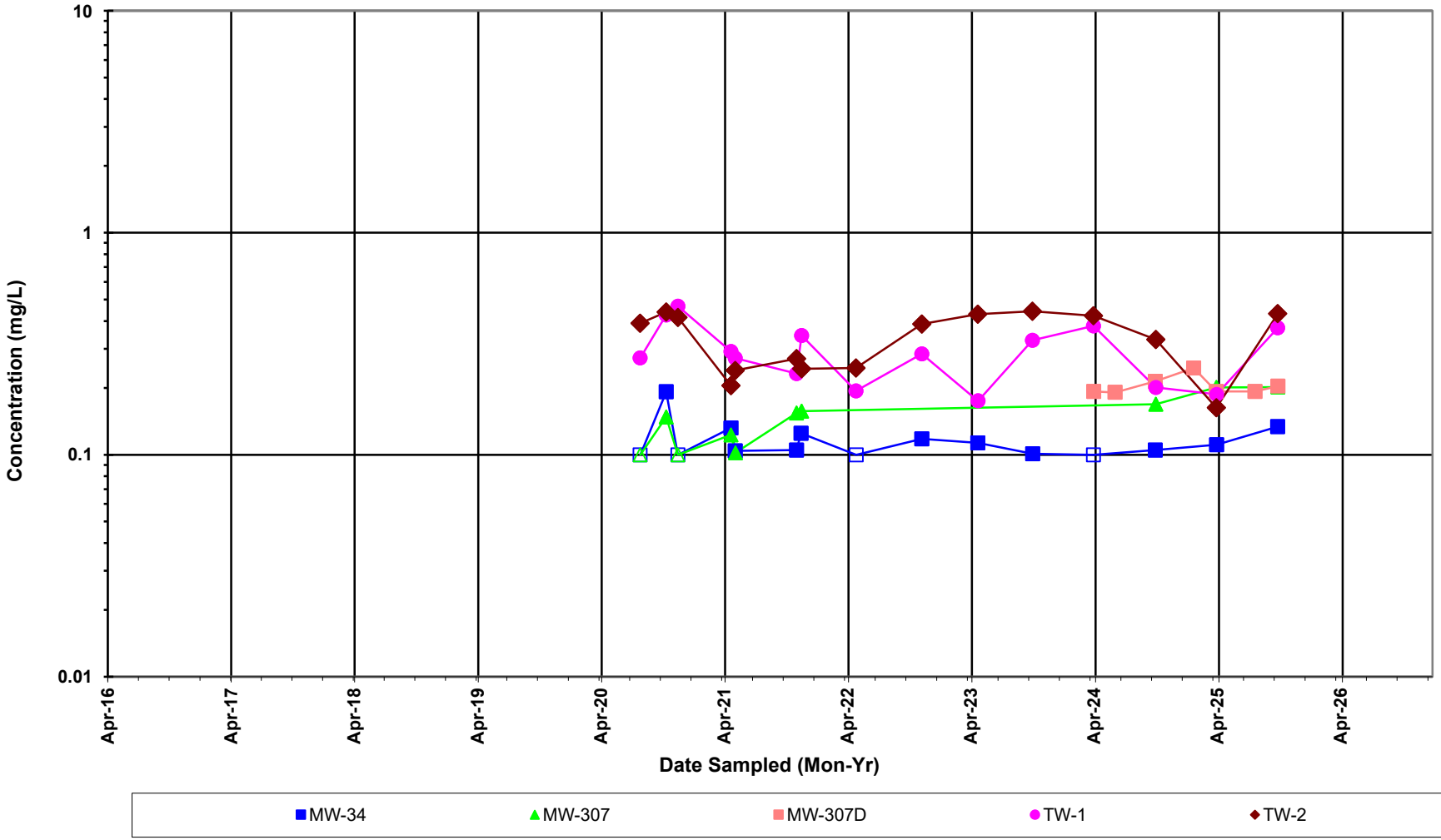
Leachate Analytical Results
MidAmerican Energy Company
Walter Scott, Jr. Energy Center CCR Monofill
Council Bluffs, Iowa

Sample Location: / Sample Date:	Units	Lift Station 3 4/29/2022	Lift Station 3 10/10/2022	Lift Station 3 4/25/2023	Lift Station 3 10/4/2023	Lift Station 3 4/2/2024	Lift Station 3 10/2/2024	Lift Station 3 4/2/2025	Lift Station 3 9/30/2025
Parameters									
Appendix III									
Boron	mg/L	3.56	2.40	2.09	1.94	2.00	1.44	1.43	1.75
Calcium	mg/L	144	77.4	135	42.5	22.5	106	17.5	87.5
Chloride	mg/L	321	315	240	317	154	248	175 J-	154
Fluoride	mg/L	3.69	4.82	<1.00	<1.00	<1.00	<1.00	1.25 J-	<1.00
pH, lab	s.u.	11.3 J	11.9 J	11.9 J	11.9 J	11.9 J	12.1 J	10.2 J	12.0 J
Sulfate	mg/L	2500	2910	3300	3070	1720	3030	2490 J-	2040
Total dissolved solids (TDS)	mg/L	5400	6680	5520	6330	3550	5630	5060 J-	3650
Appendix IV									
Antimony	mg/L	--	--	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Arsenic	mg/L	--	--	0.0108	0.0170	0.0107	0.0206	0.0150	0.00659
Barium	mg/L	--	--	0.0564	0.0248	0.0249	0.0471	0.0366	0.0791
Beryllium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Cadmium	mg/L	--	--	0.000790	0.000417	0.000211	0.000791	0.000510	0.000418
Chromium	mg/L	--	--	0.0103	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Cobalt	mg/L	--	--	0.000683	0.000570	0.000550	<0.000500	0.000548	<0.000500
Lead	mg/L	--	--	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
Lithium	mg/L	--	--	<0.0100	<0.0100	<0.0100	0.0123	0.0115	0.0204
Mercury	mg/L	--	--	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200 J	<0.000200
Molybdenum	mg/L	--	--	1.80	2.33	1.26	2.10	1.55	1.26
Radium-226 & 228	pCi/L	--	--	<-0.0661	<0.585	<0.595	0.590	-0.605	0.772
Selenium	mg/L	--	--	0.145	0.231	0.103	0.232	0.0650	0.0799
Thallium	mg/L	--	--	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Notes:
J - Estimated concentration.
R - Rejected.

Appendix B

Time-Series Graphs



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

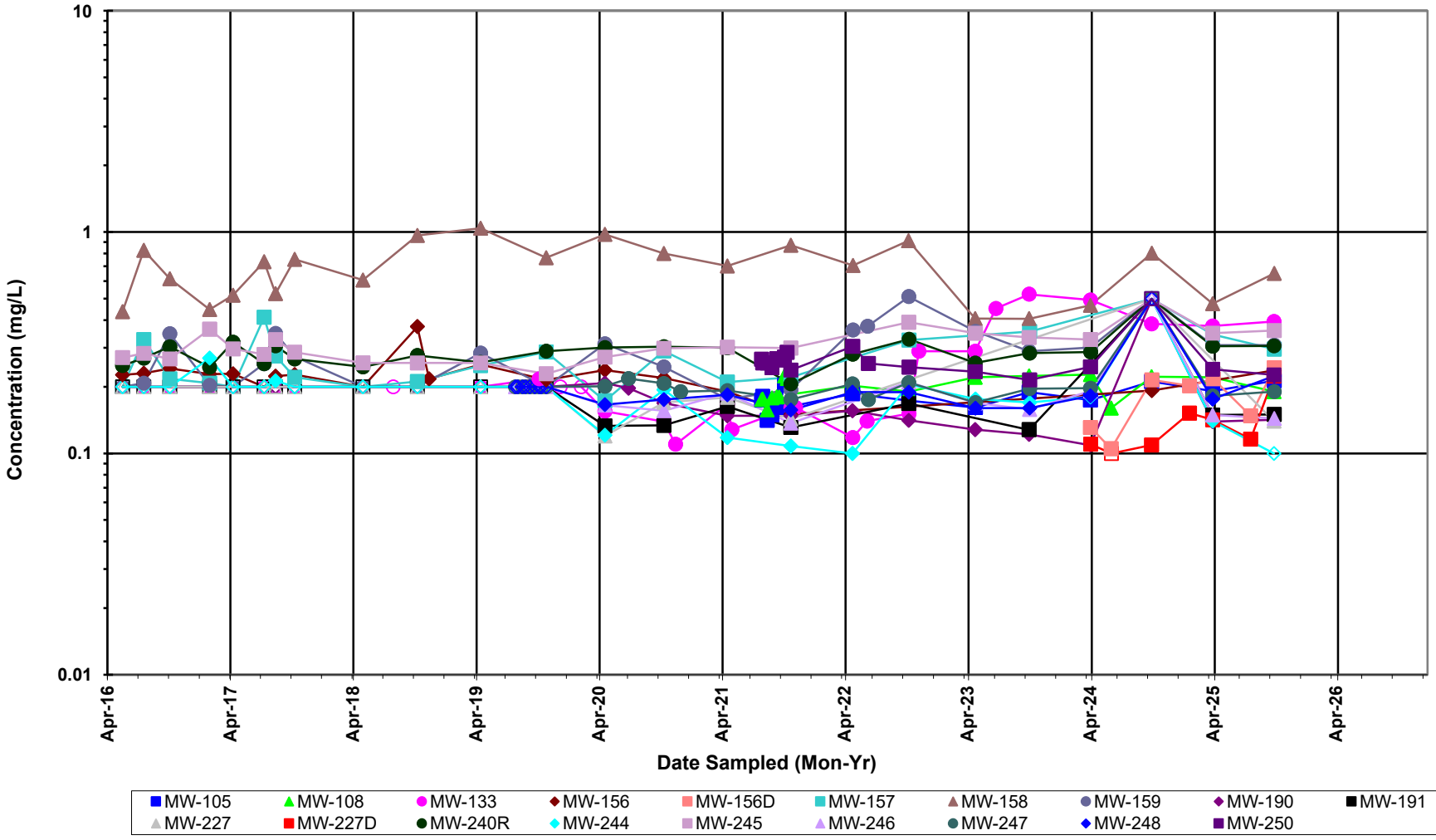
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 1A - BORON - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

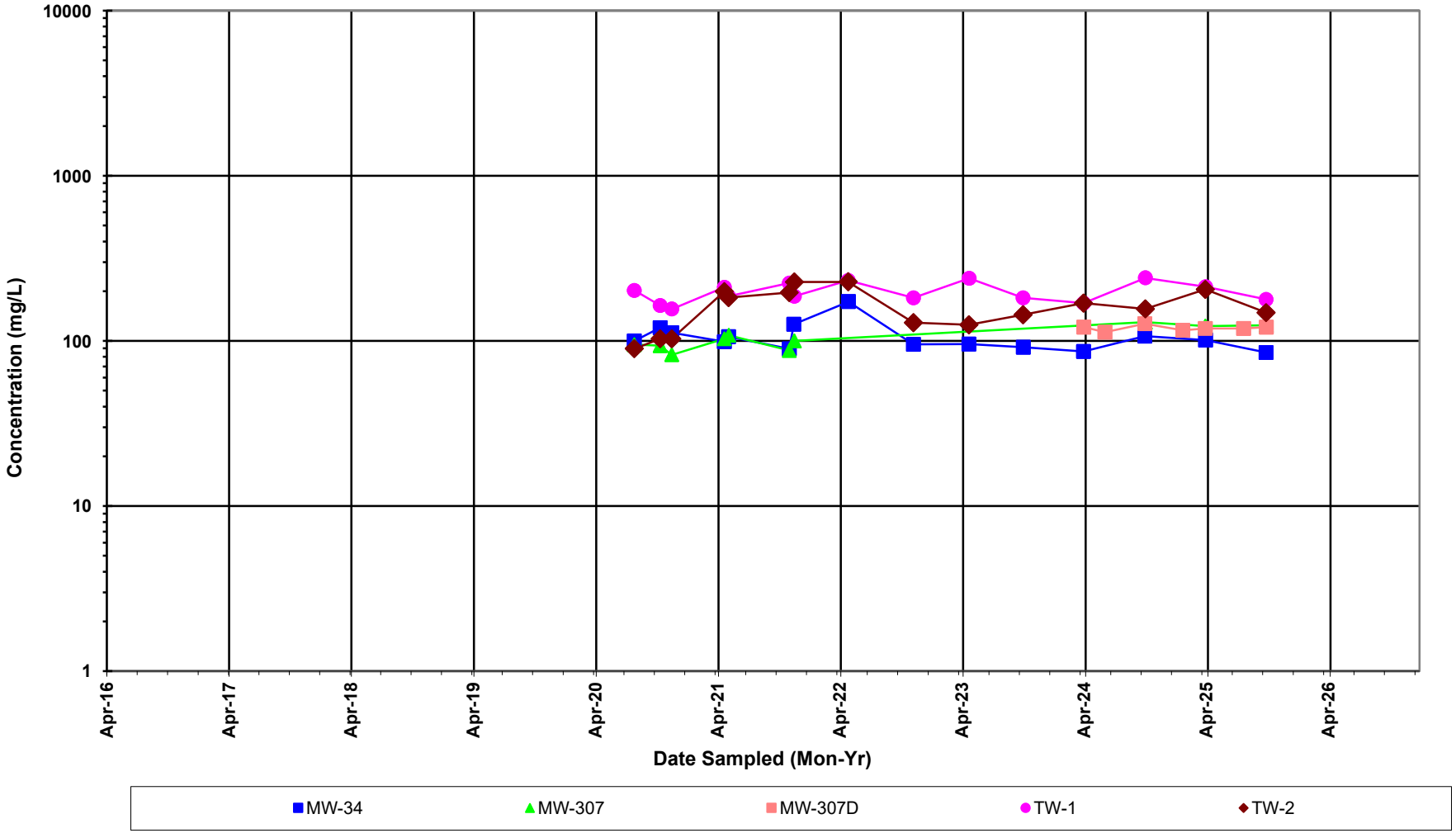
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 1B - BORON - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

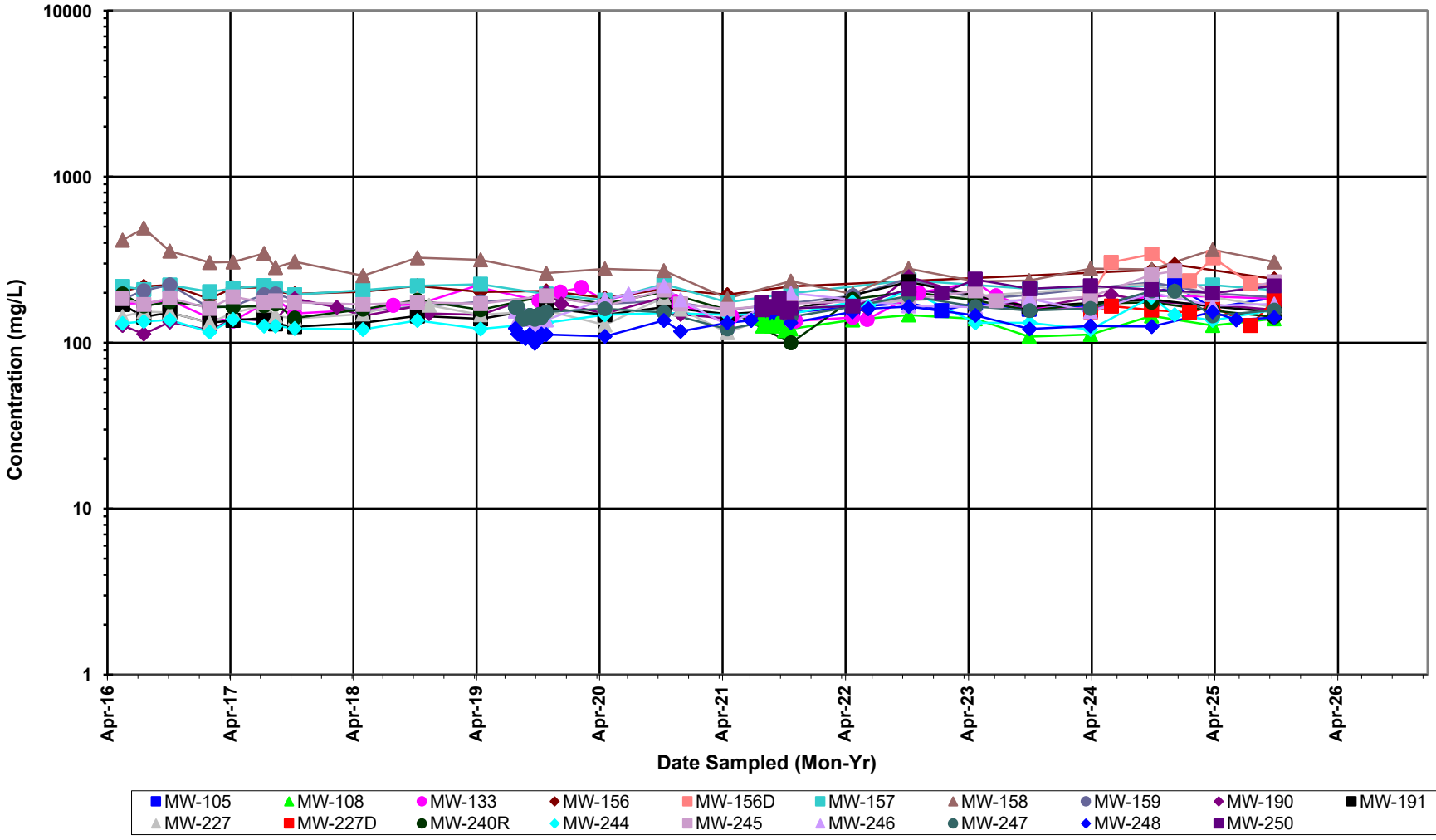
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 2A - CALCIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

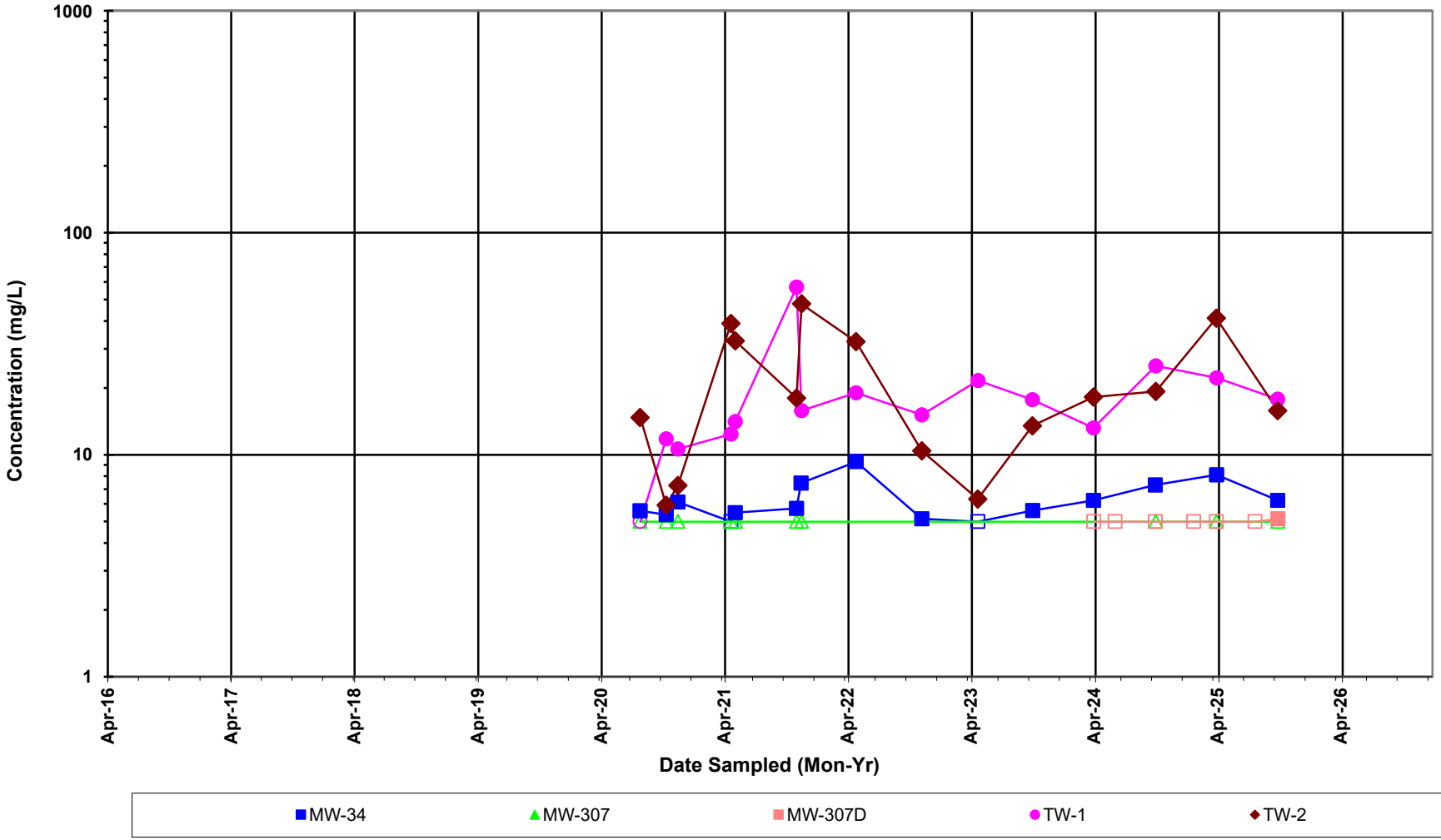
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 2B - CALCIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

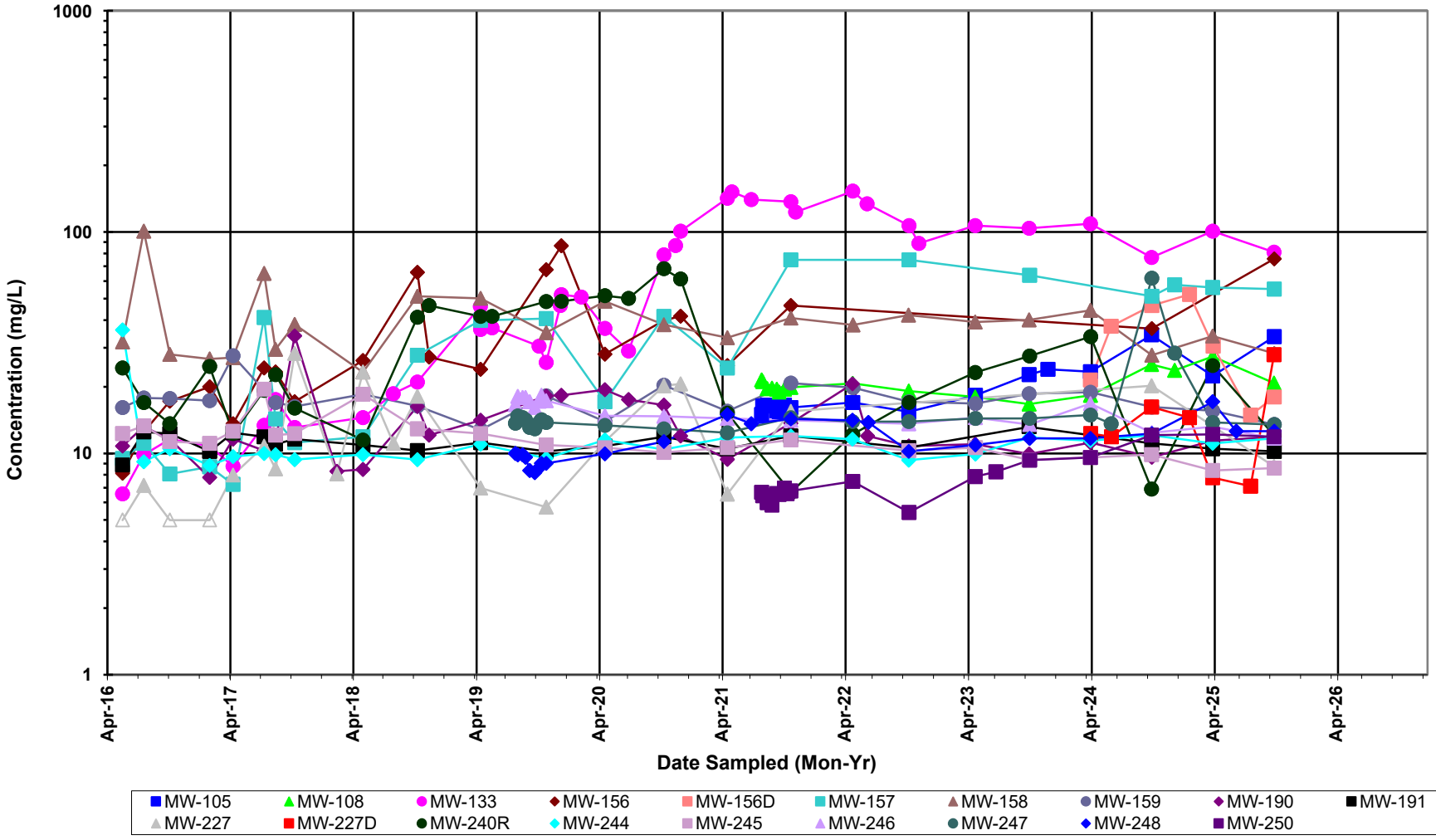
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 3A - CHLORIDE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

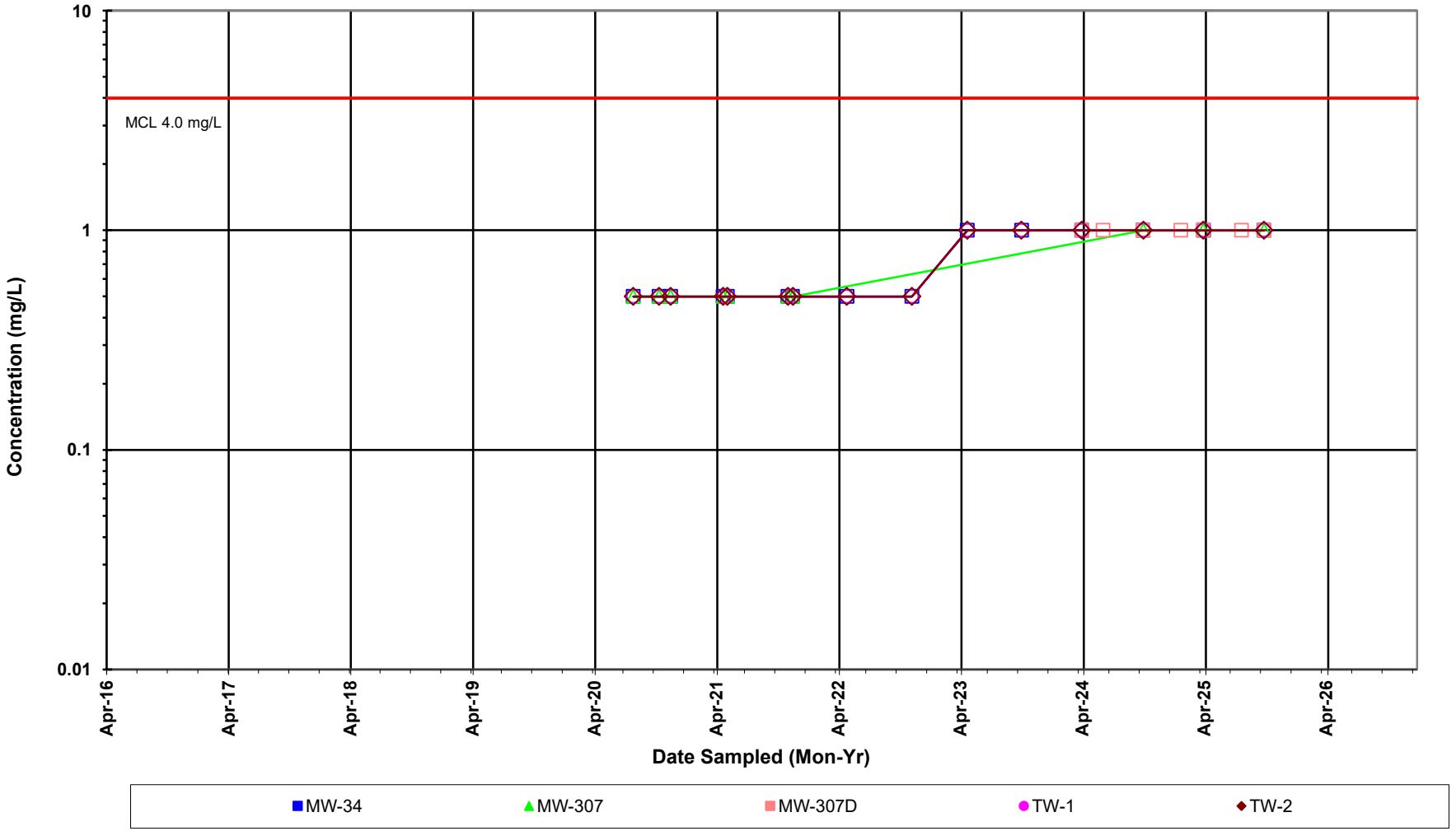
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 3B - CHLORIDE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

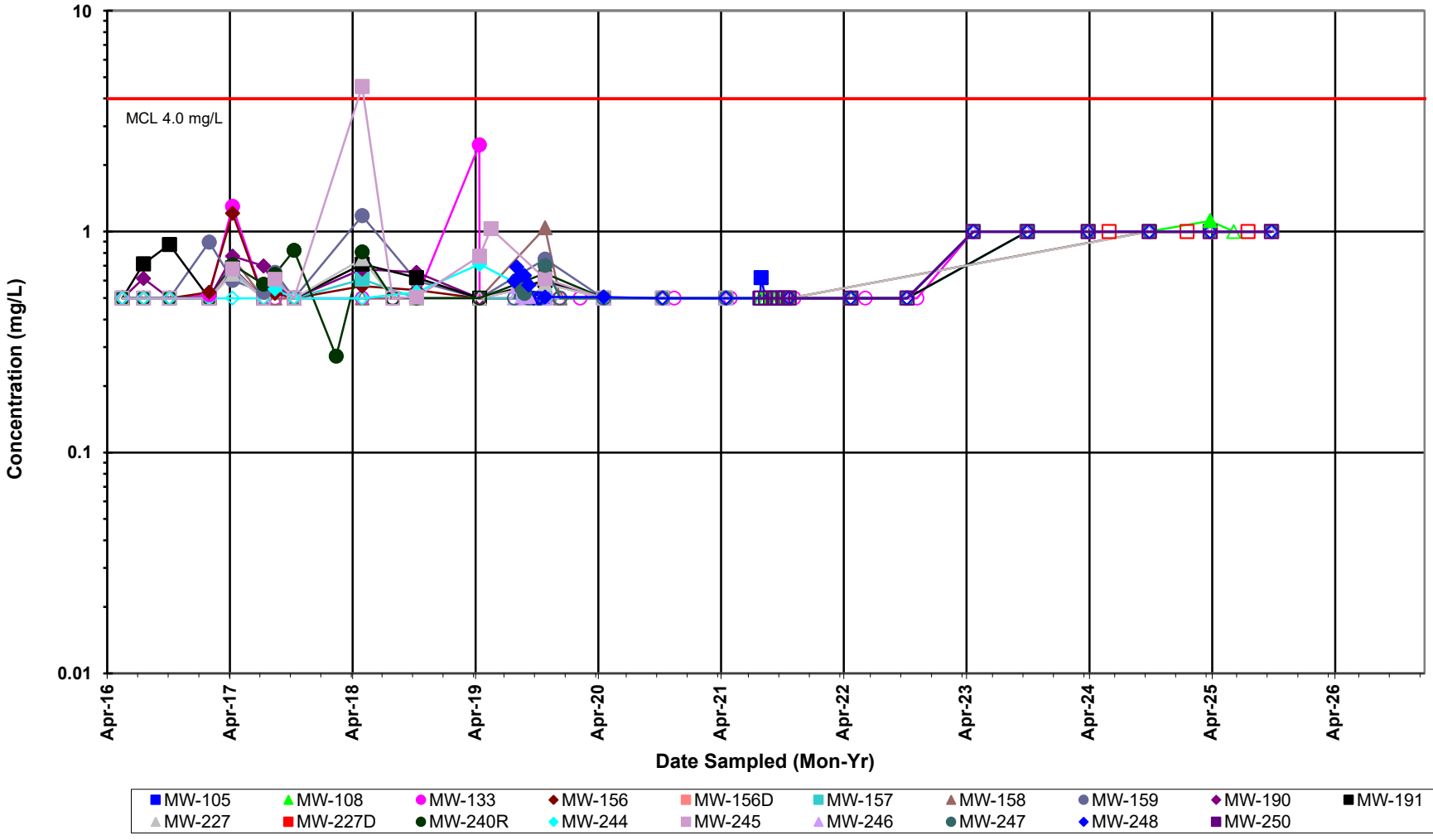
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 4A - FLUORIDE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

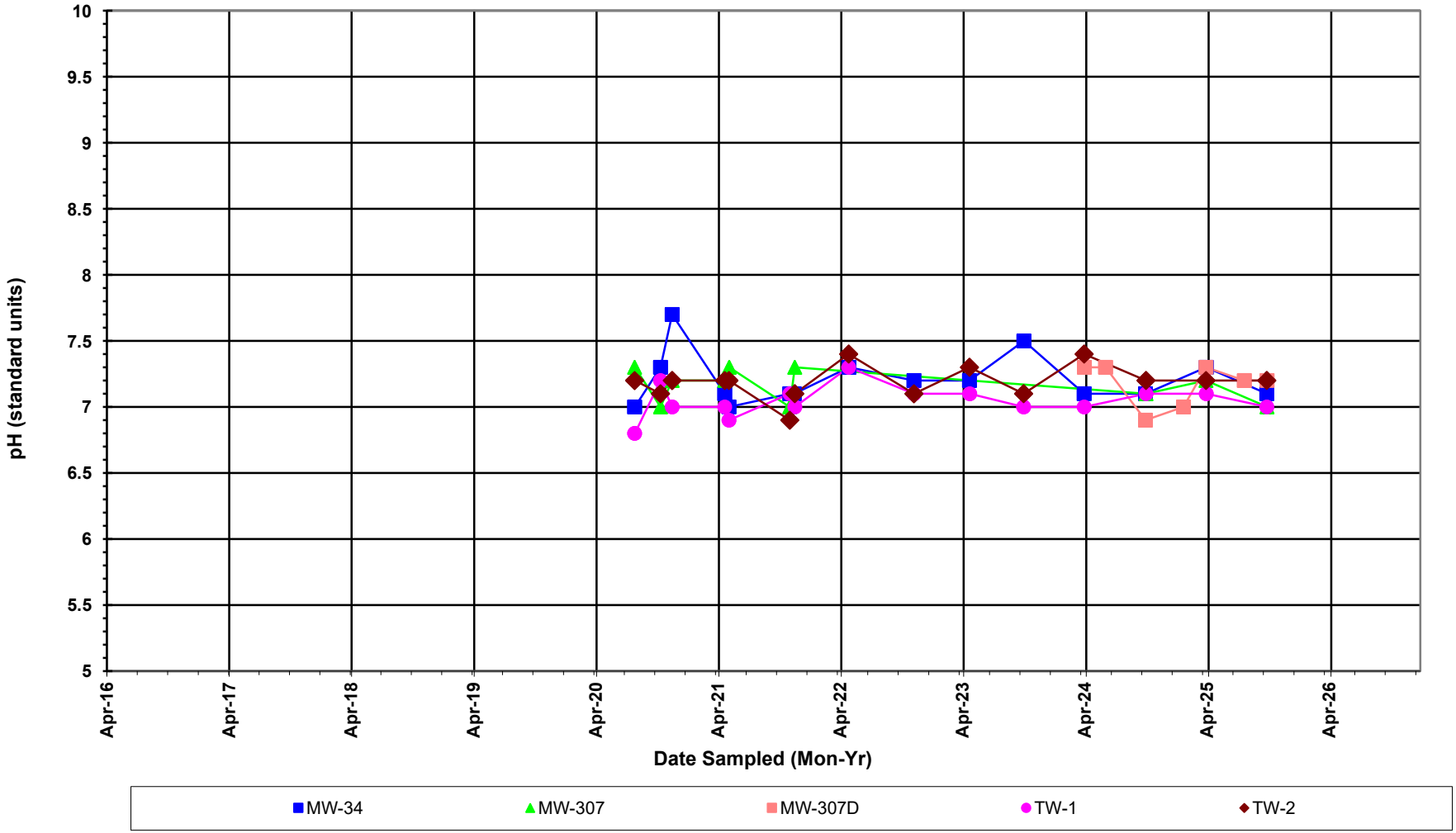
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 4B - FLUORIDE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

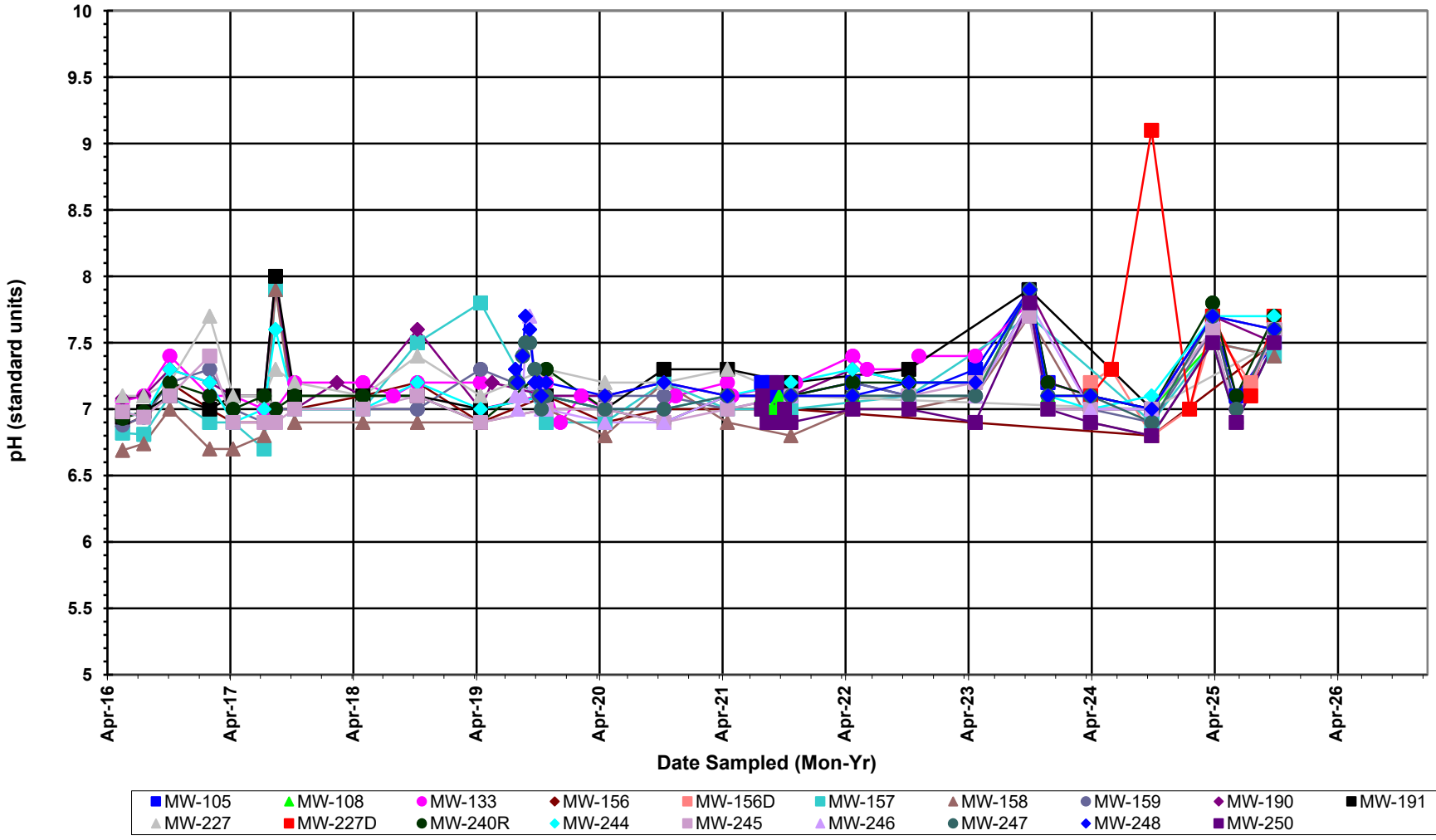
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 5A - PH, LAB - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

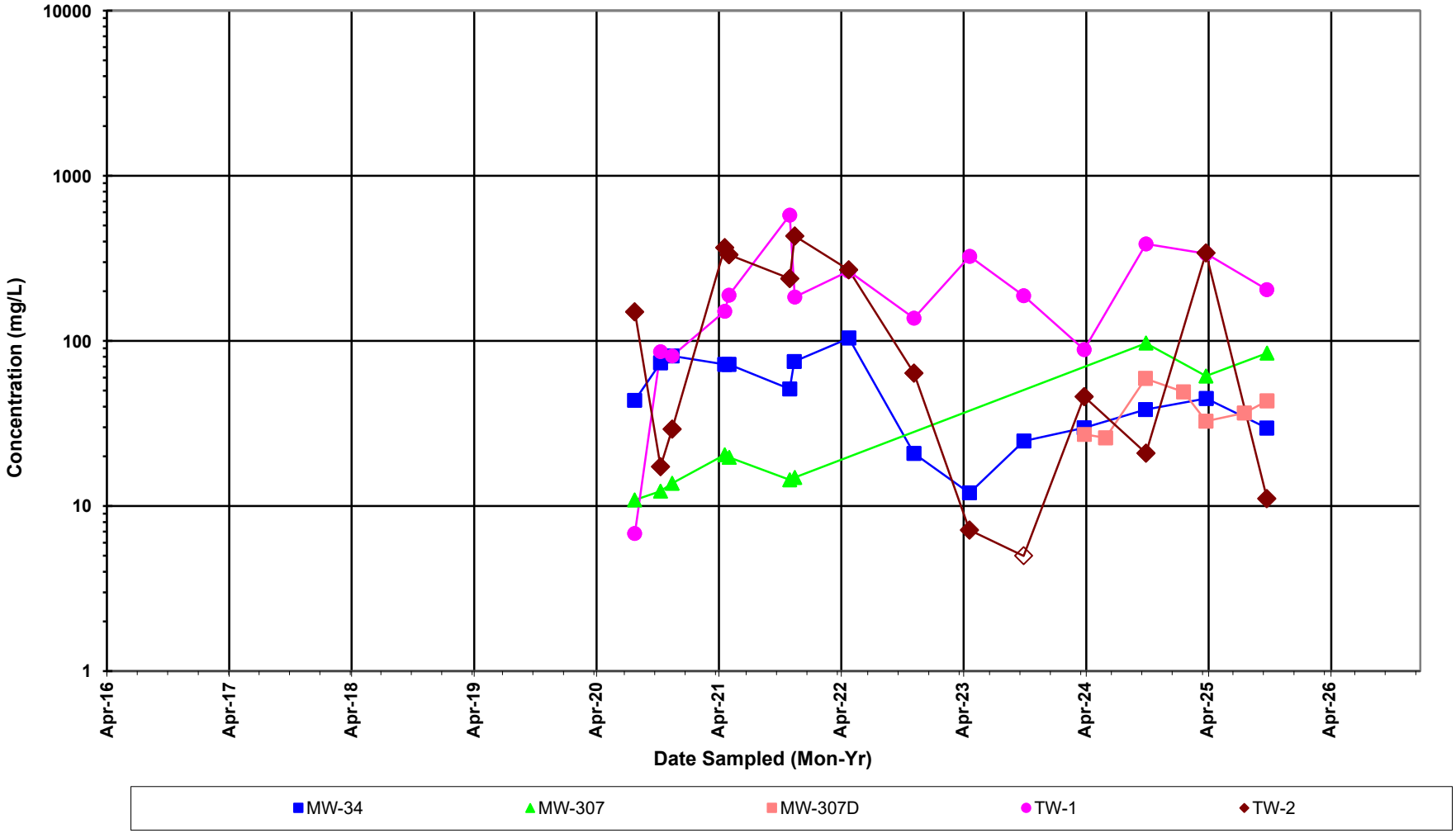
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 5B - PH, LAB - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

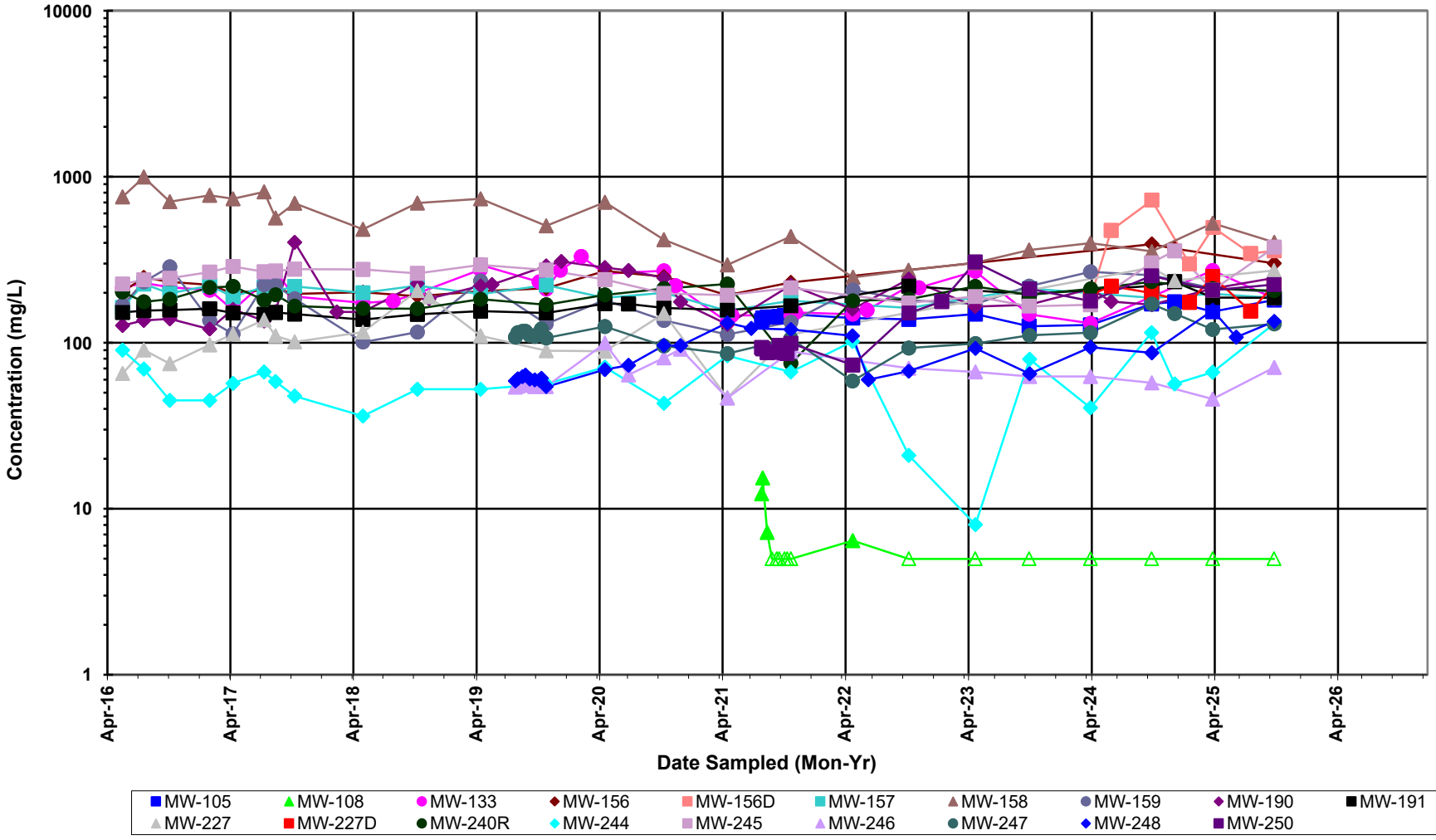
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 6A - SULFATE - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

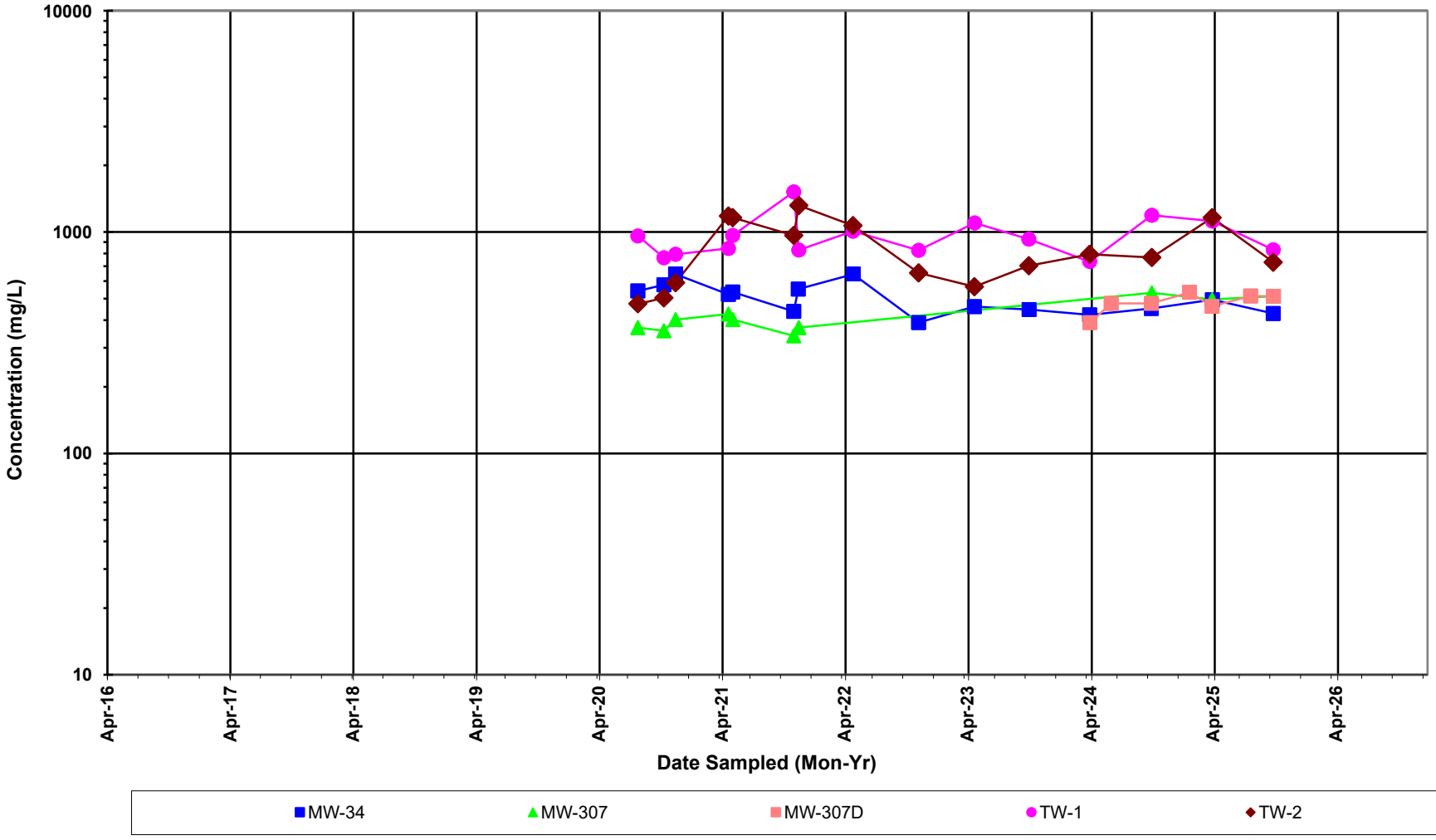
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 6B - SULFATE - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

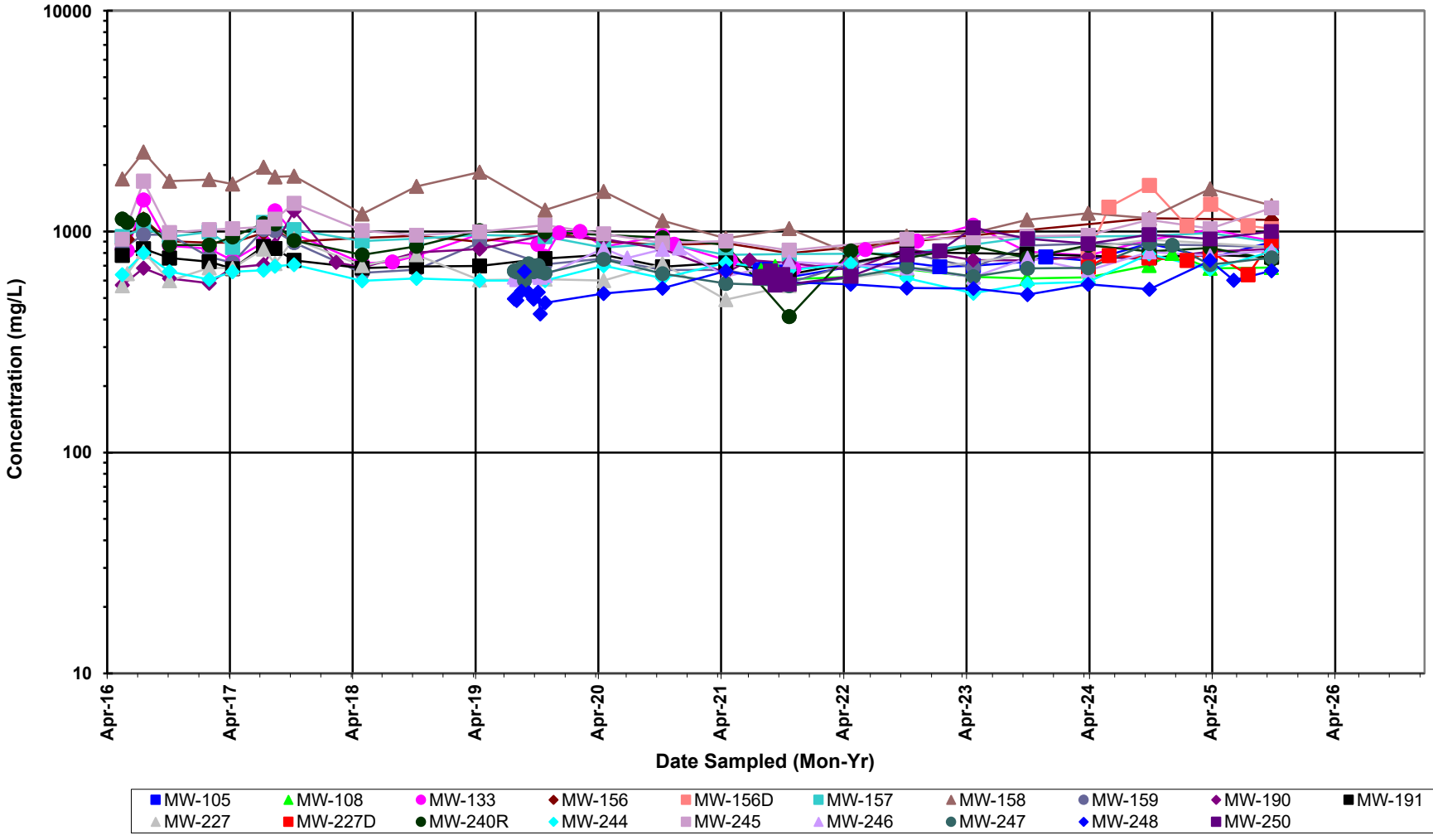
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 7A - TOTAL DISSOLVED SOLIDS (TDS) - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

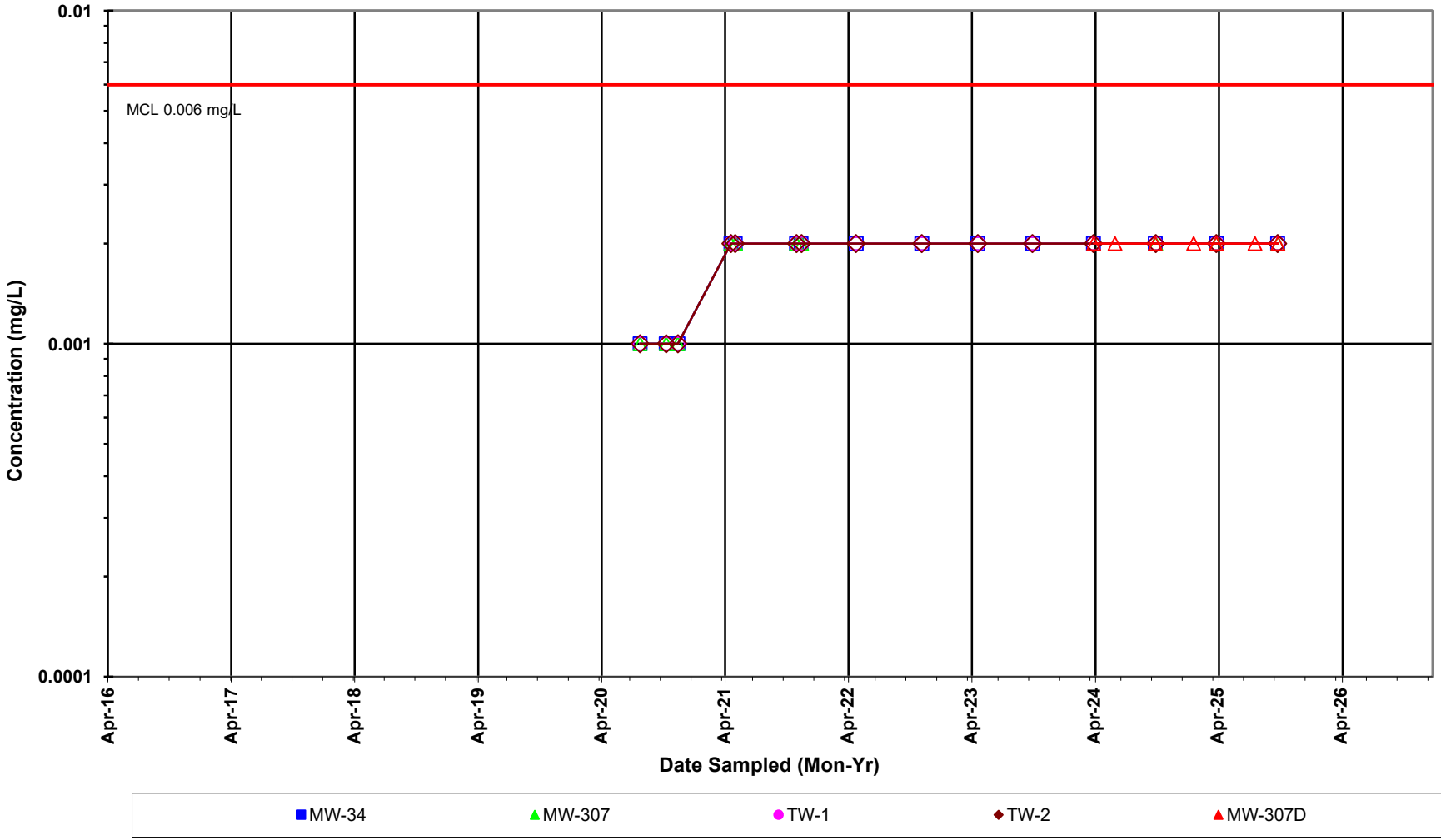
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 7B - TOTAL DISSOLVED SOLIDS (TDS) - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

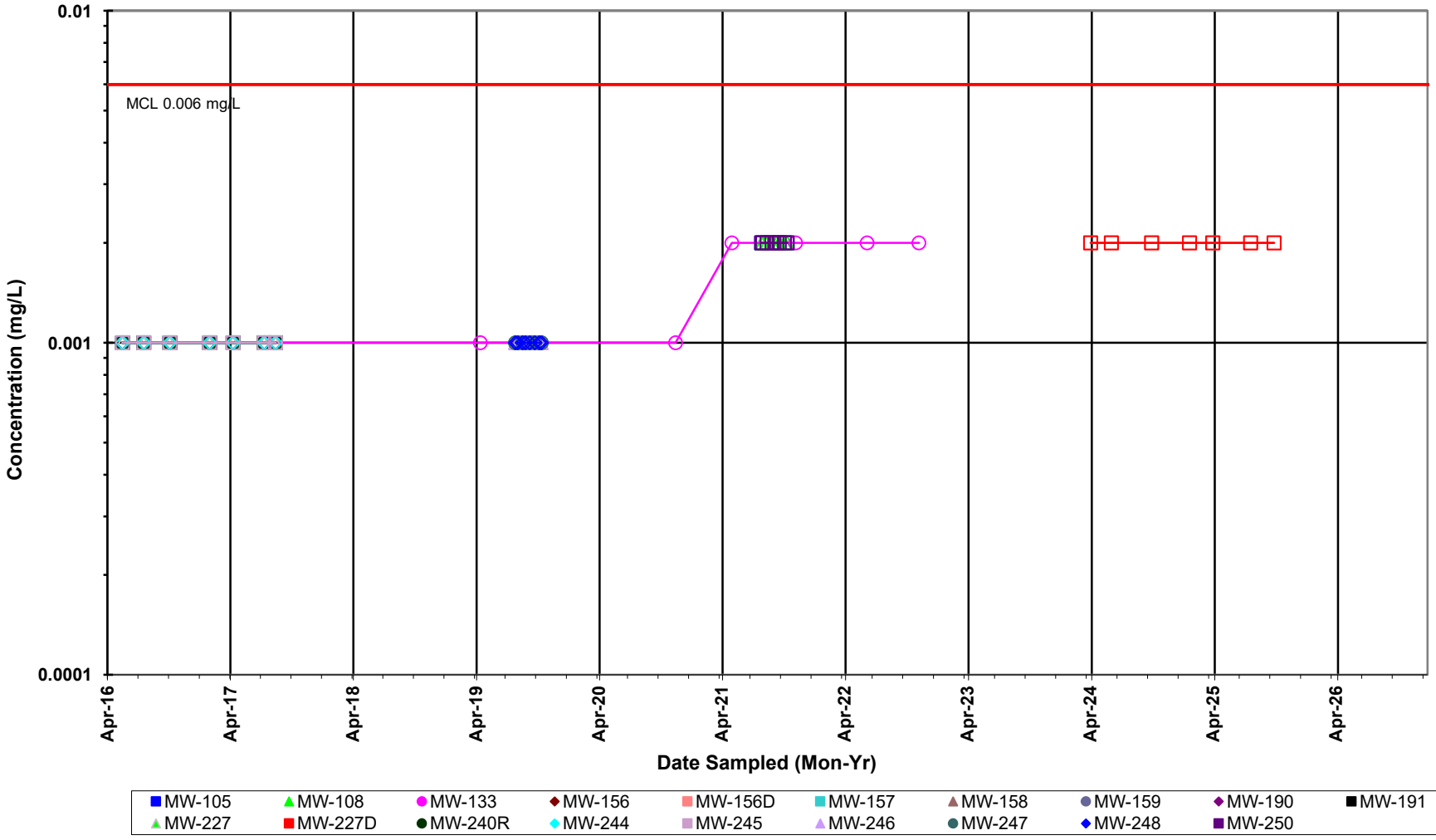
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 8A - ANTIMONY - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

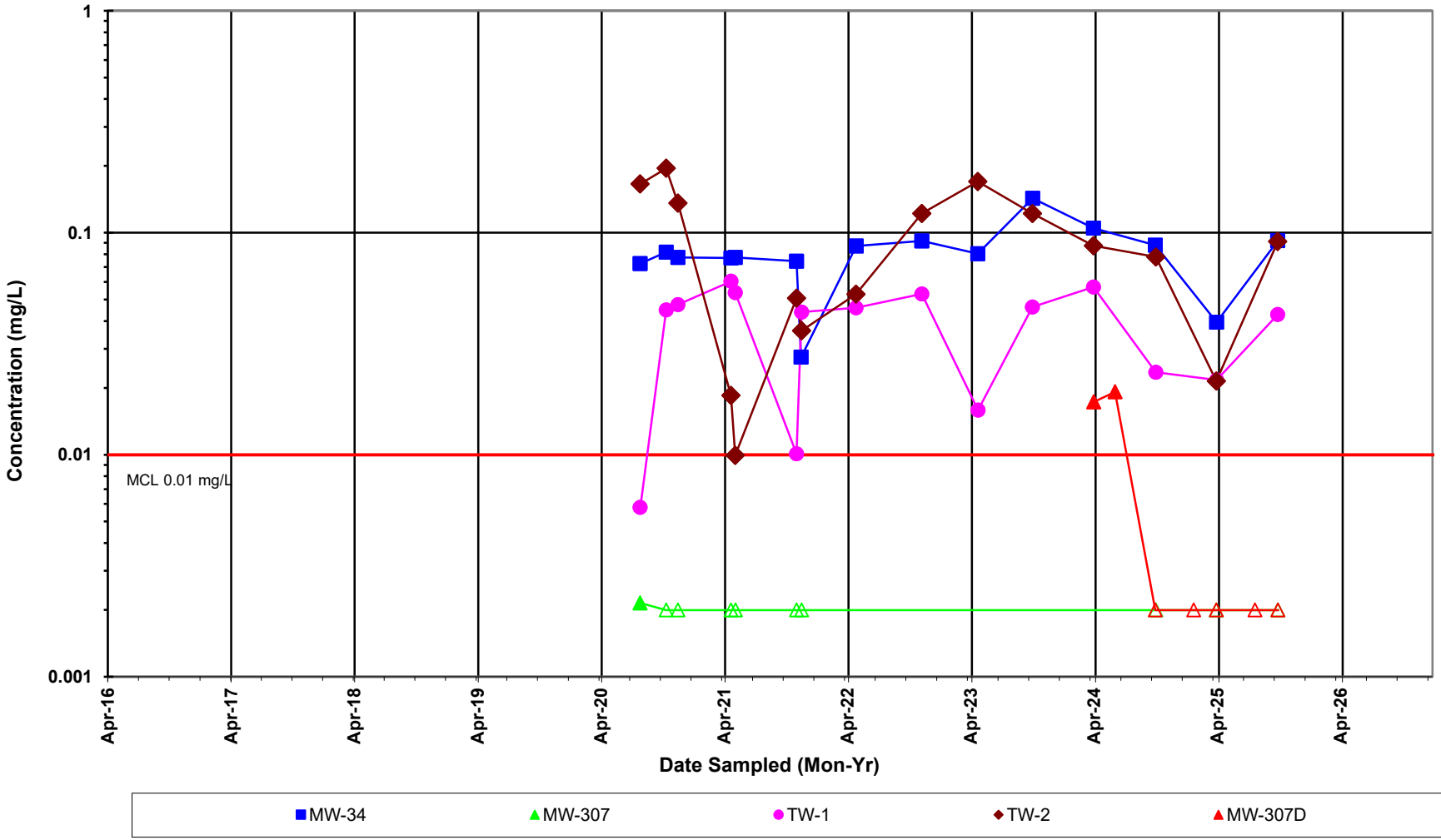
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 8B - ANTIMONY - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

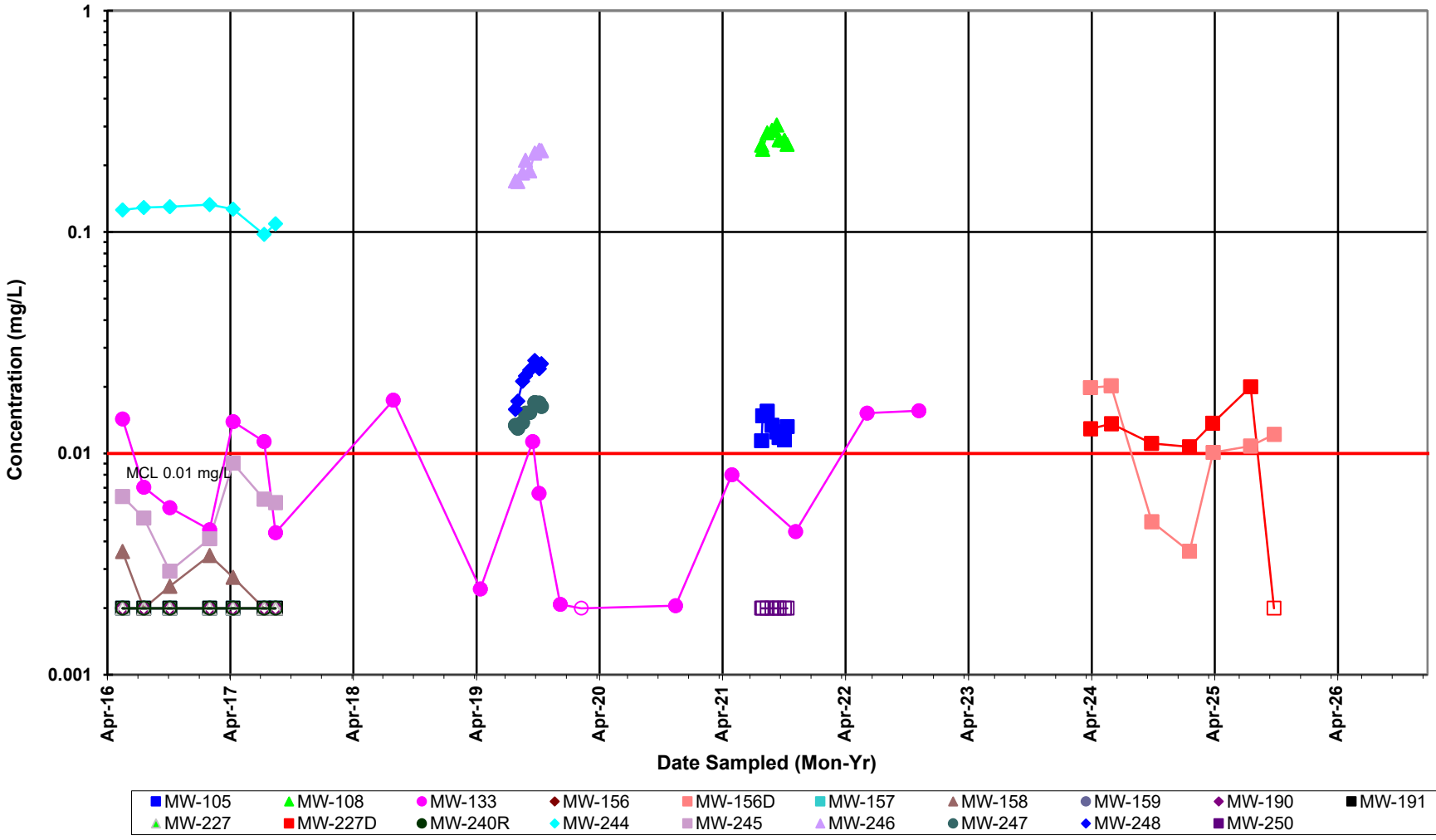
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 9A - ARSENIC - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

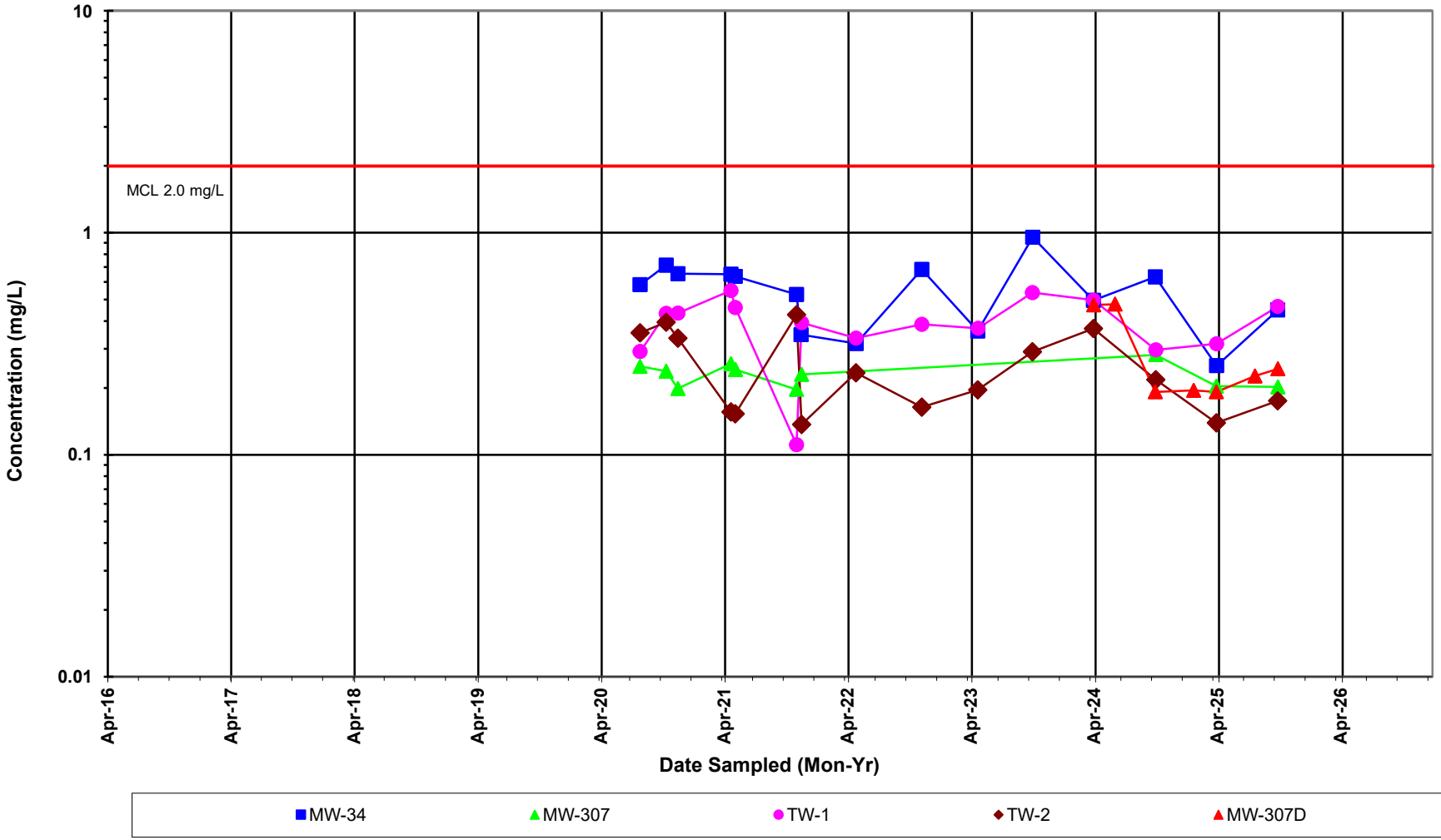
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 9B - ARSENIC - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

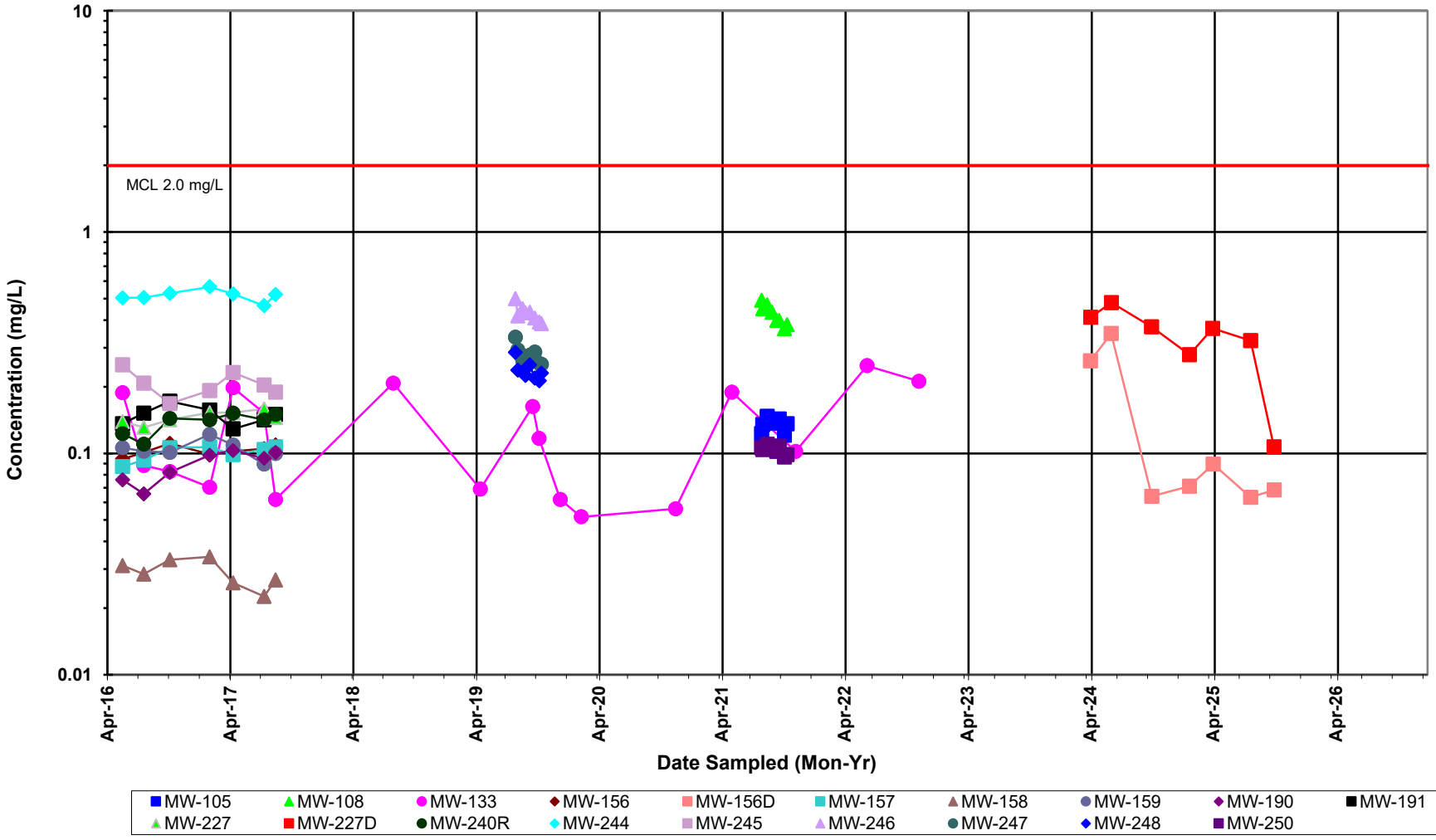
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 10A - BARIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

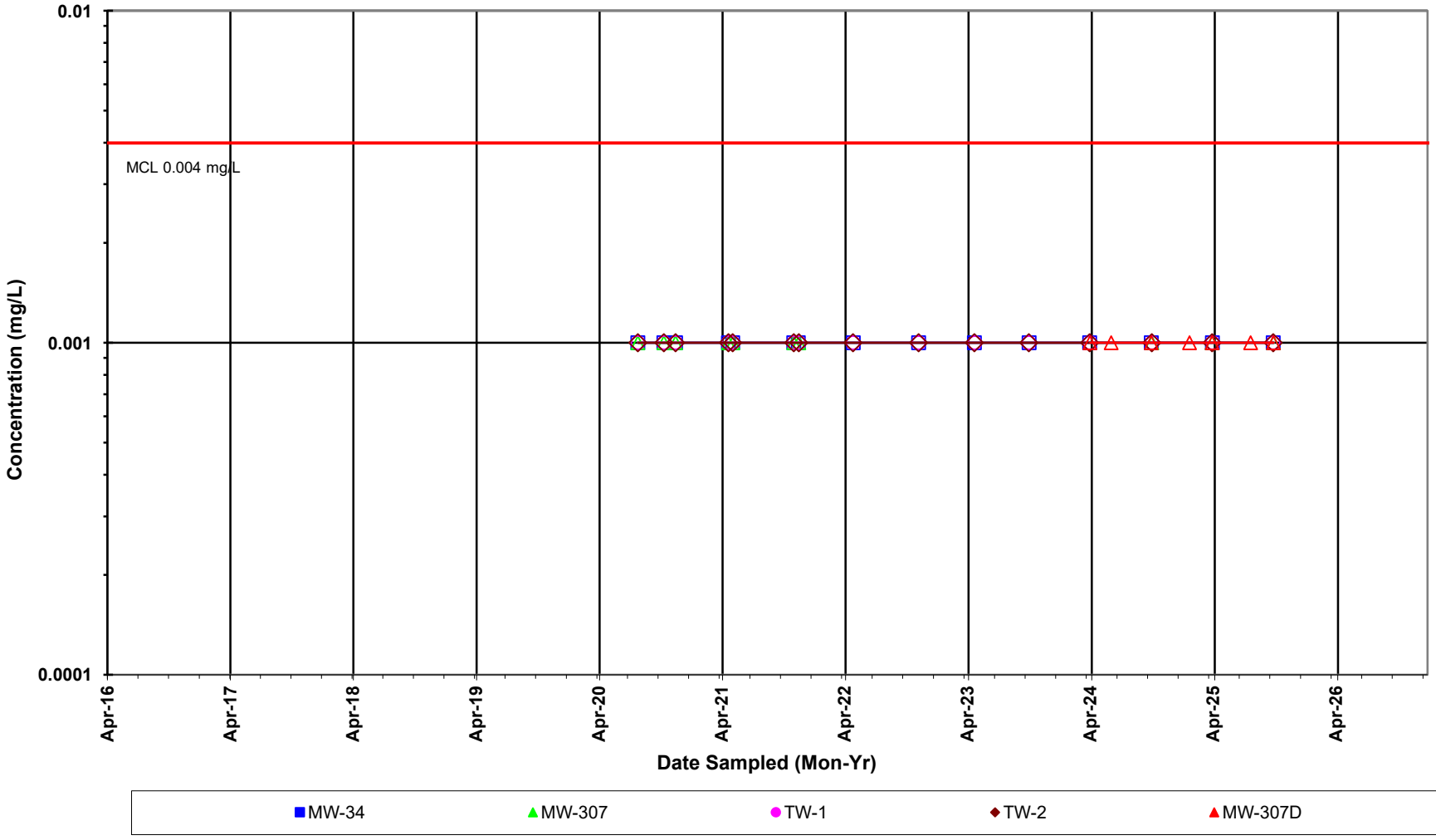
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 10B - BARIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

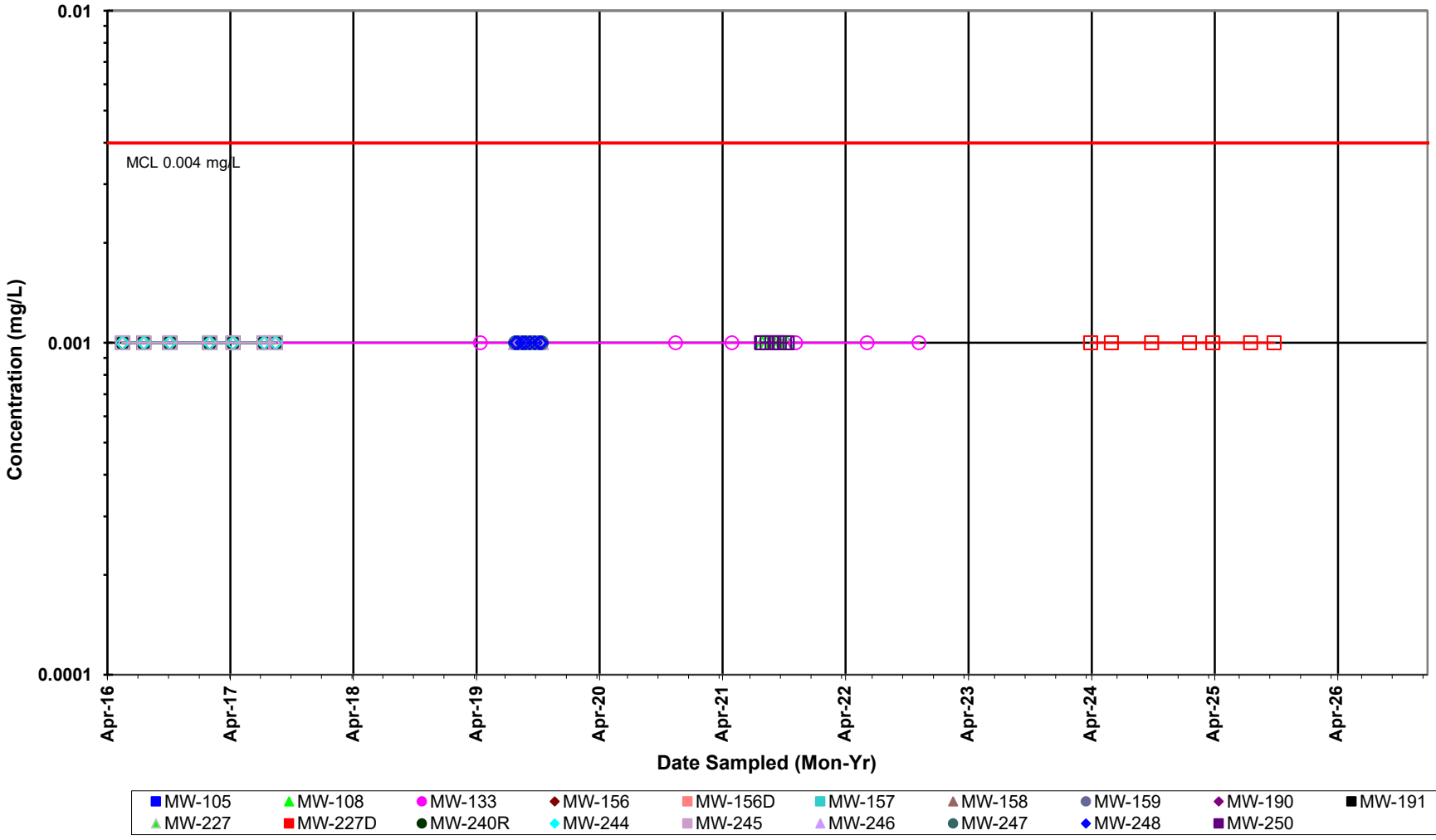
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 11A - BERYLLIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

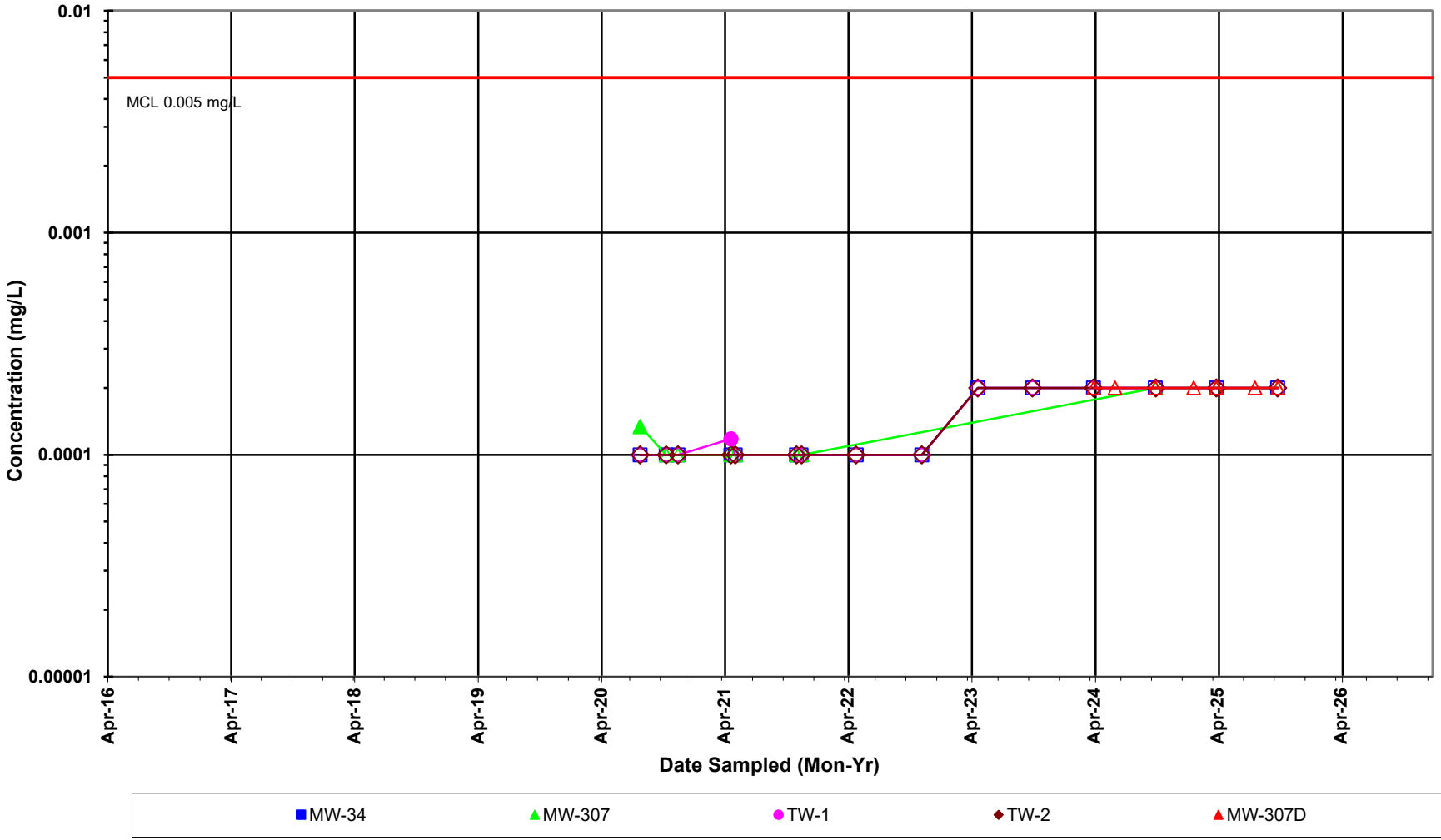
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 11B - BERYLLIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

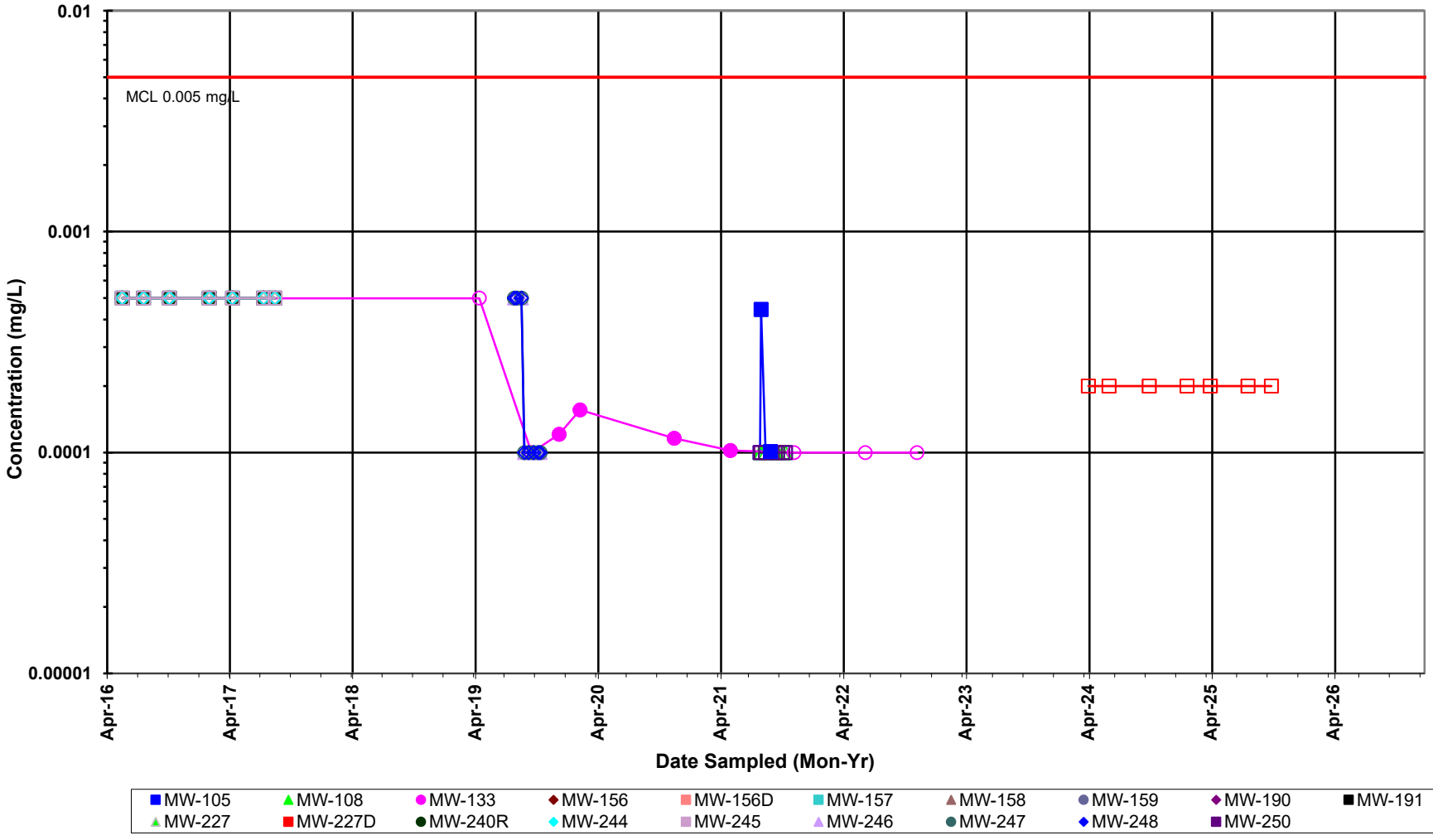
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 12A - CADMIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

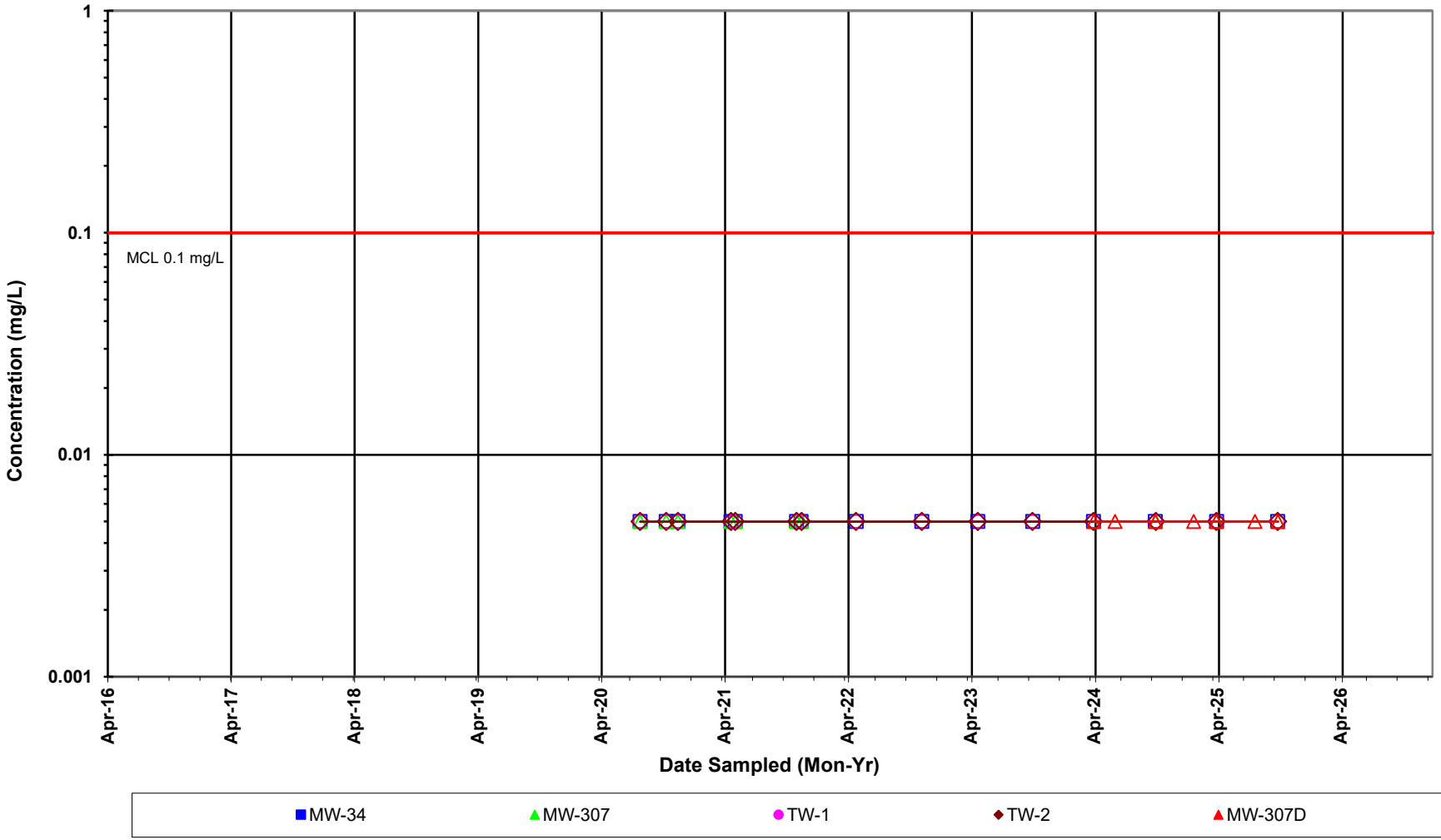
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 12B - CADMIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

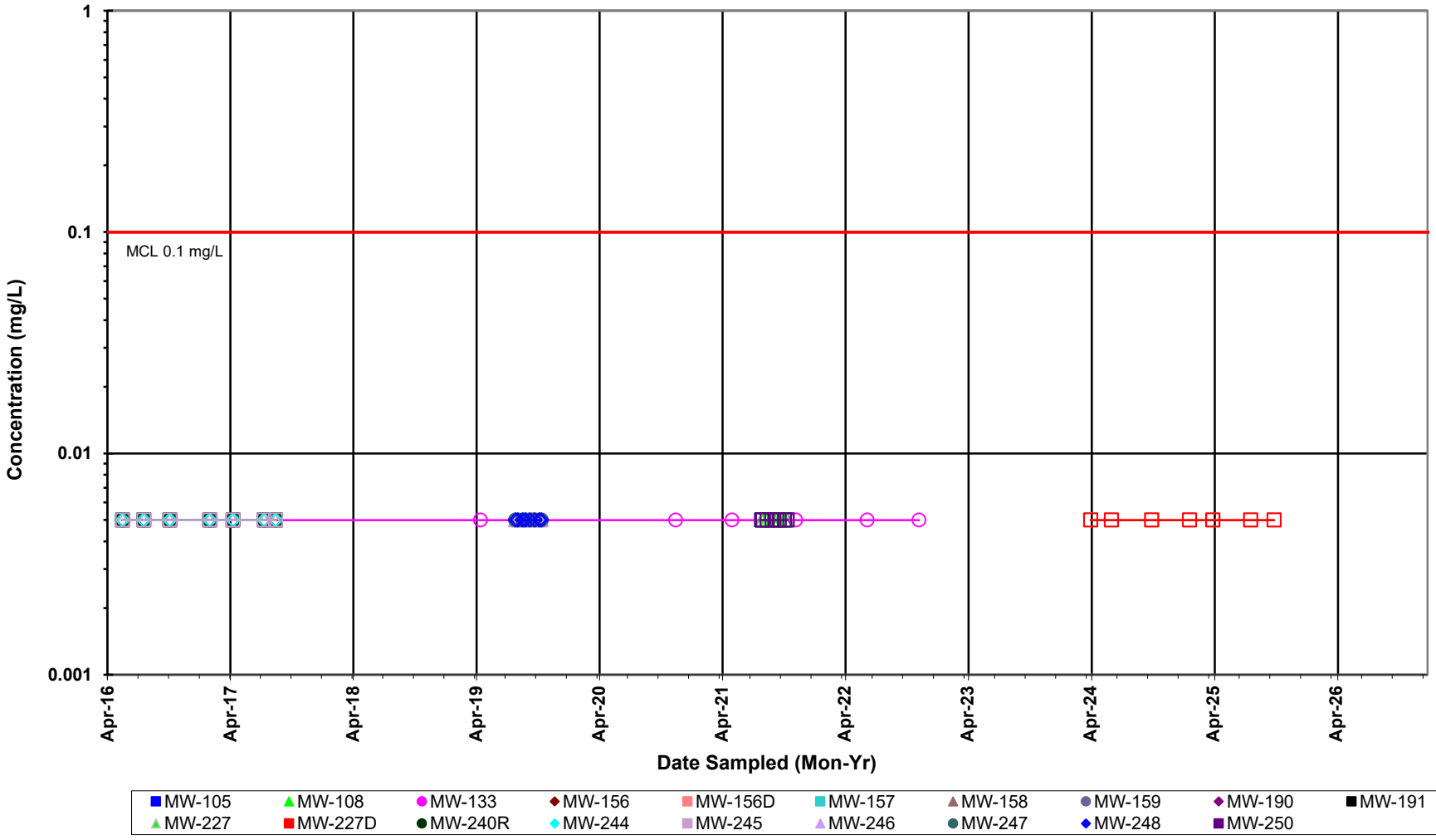
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 13A - CHROMIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

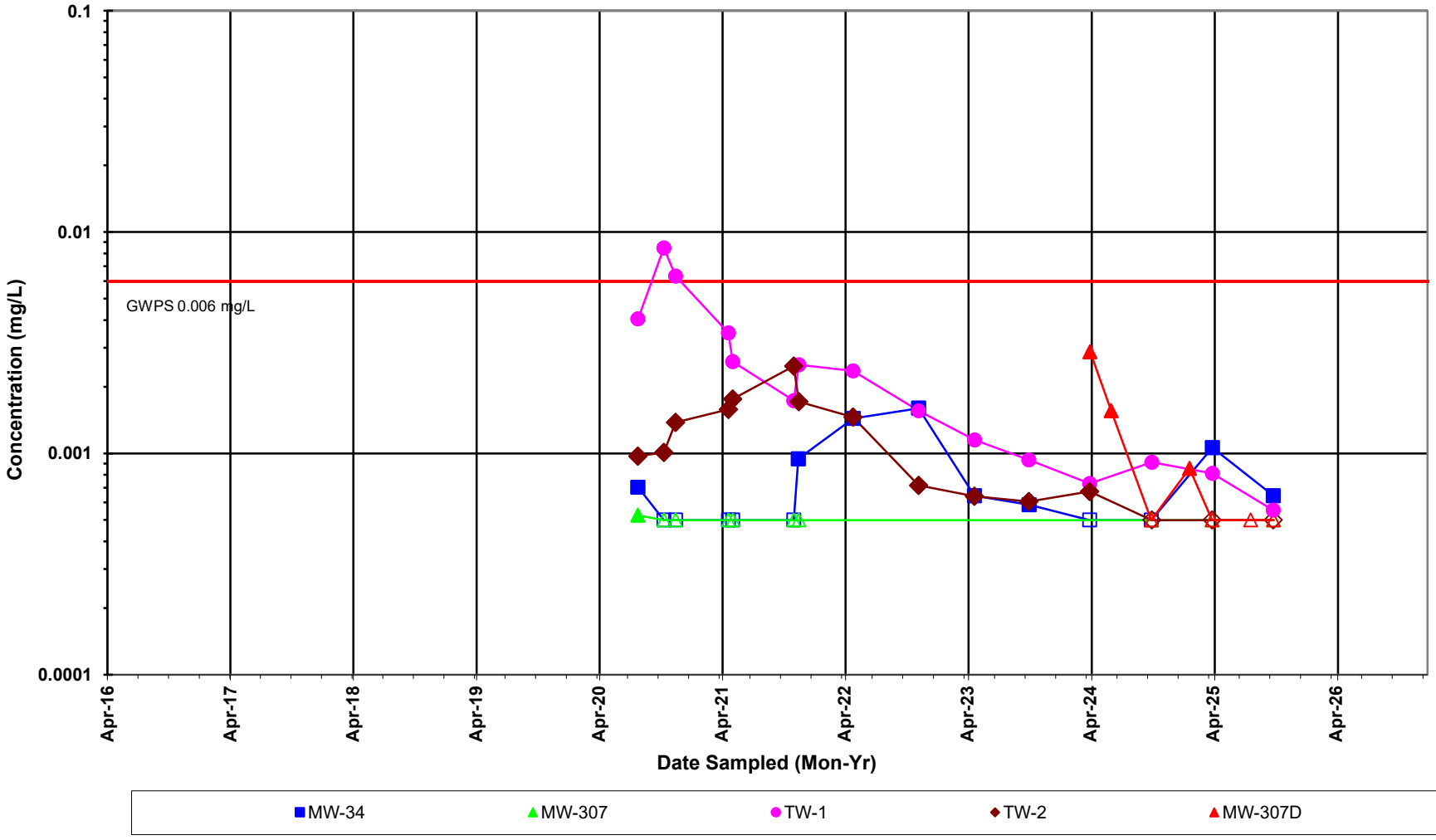
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 13B - CHROMIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

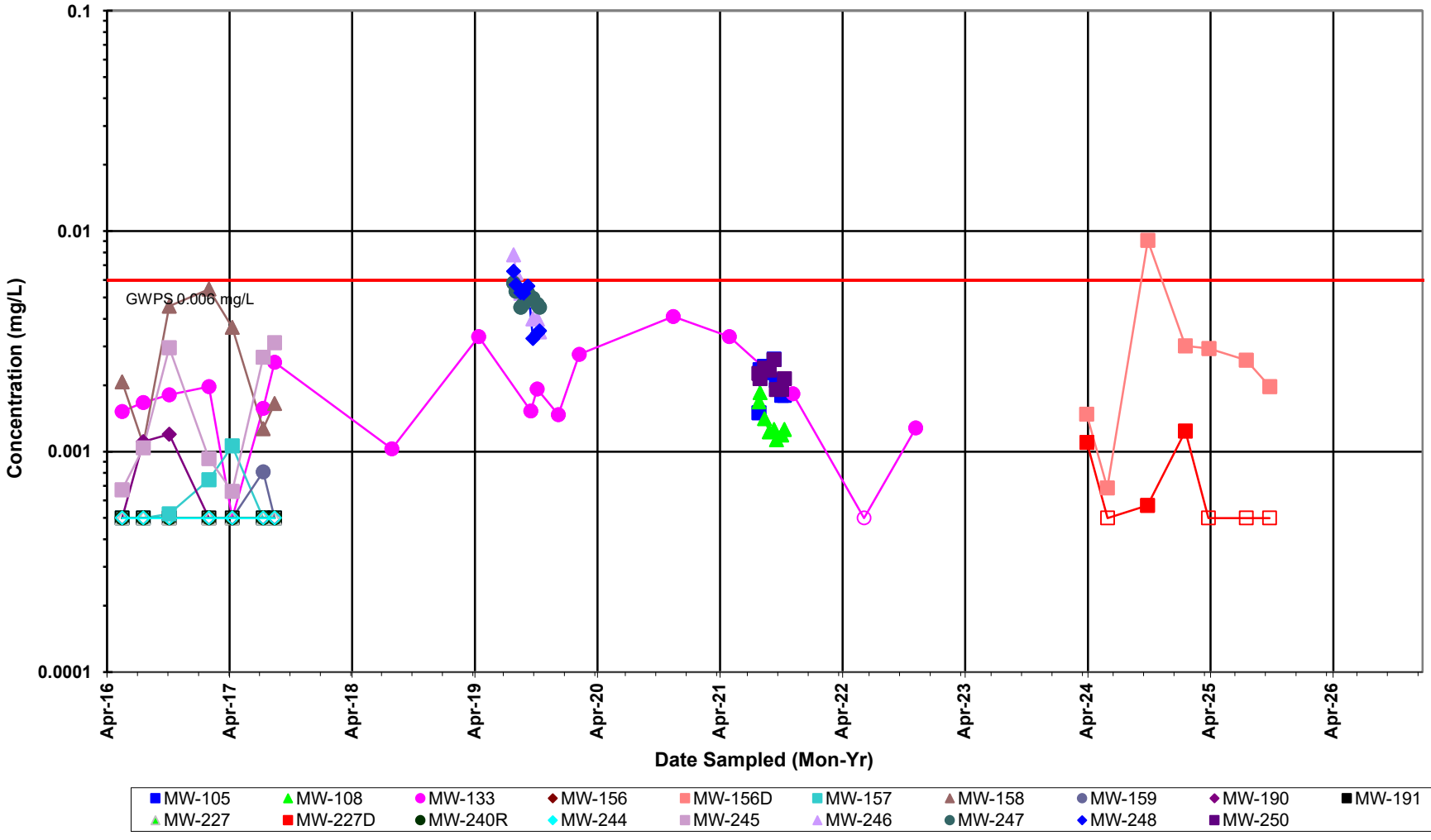
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 14A - COBALT - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

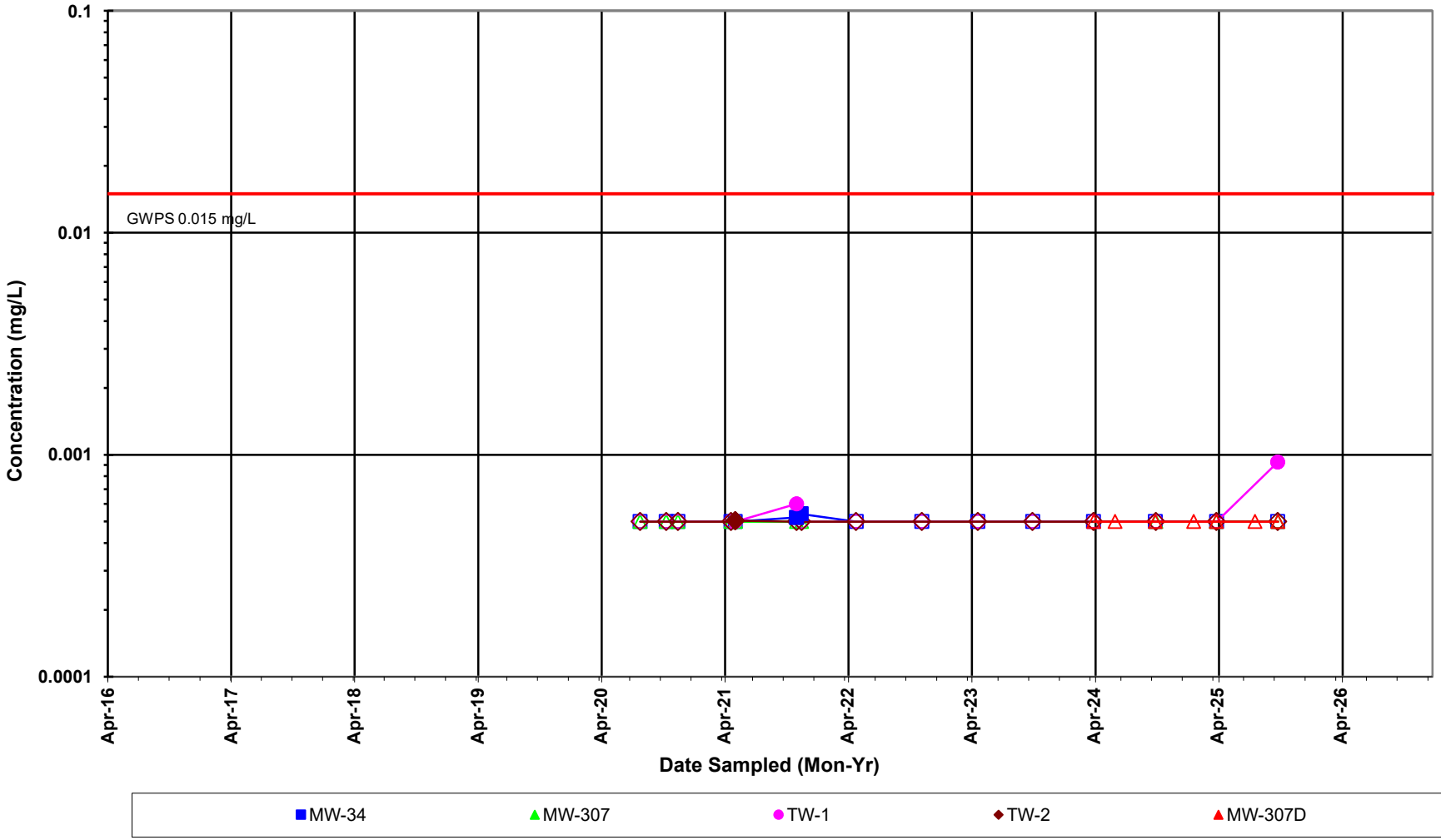
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 14B - COBALT - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

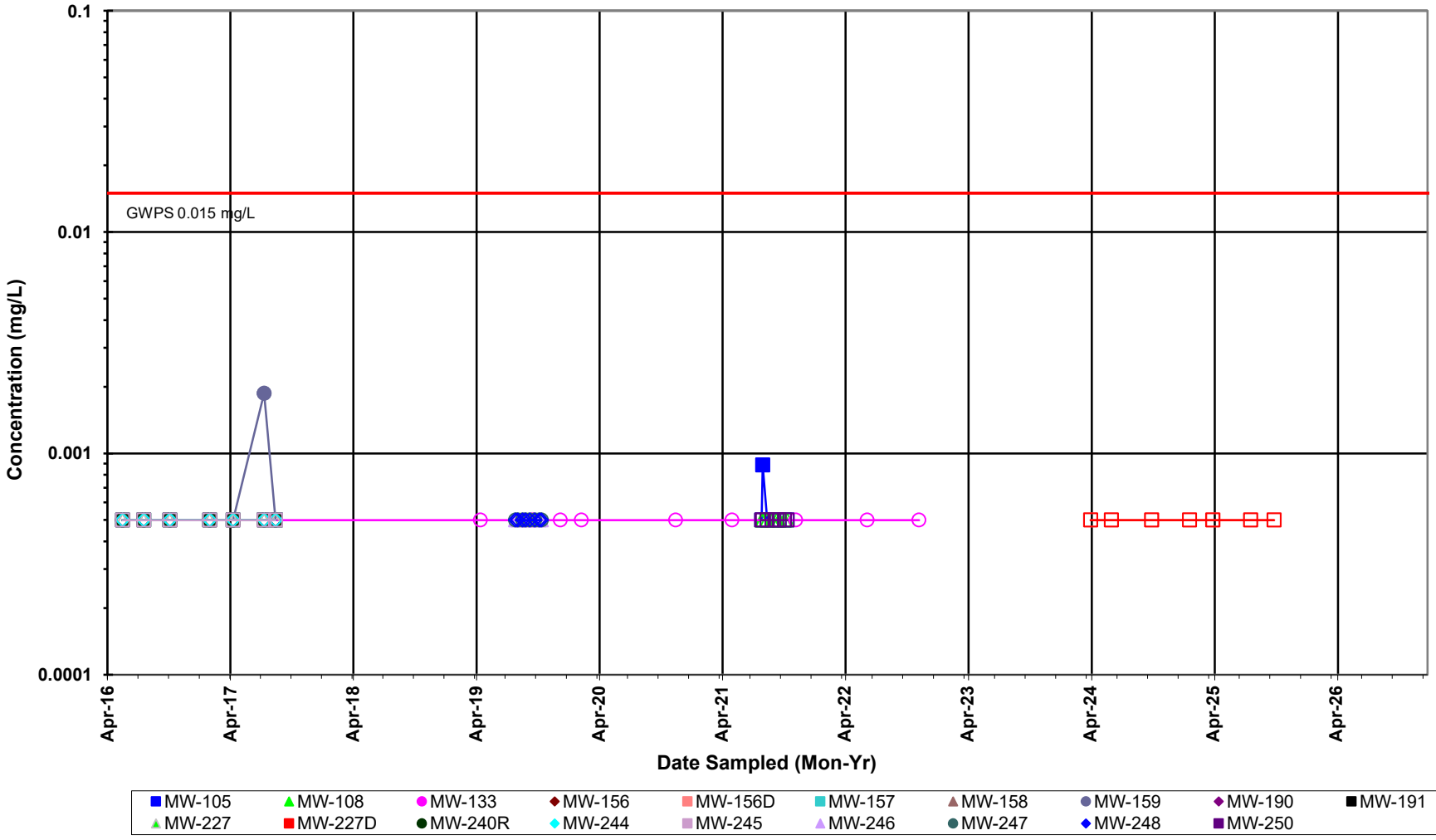
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 15A - LEAD - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

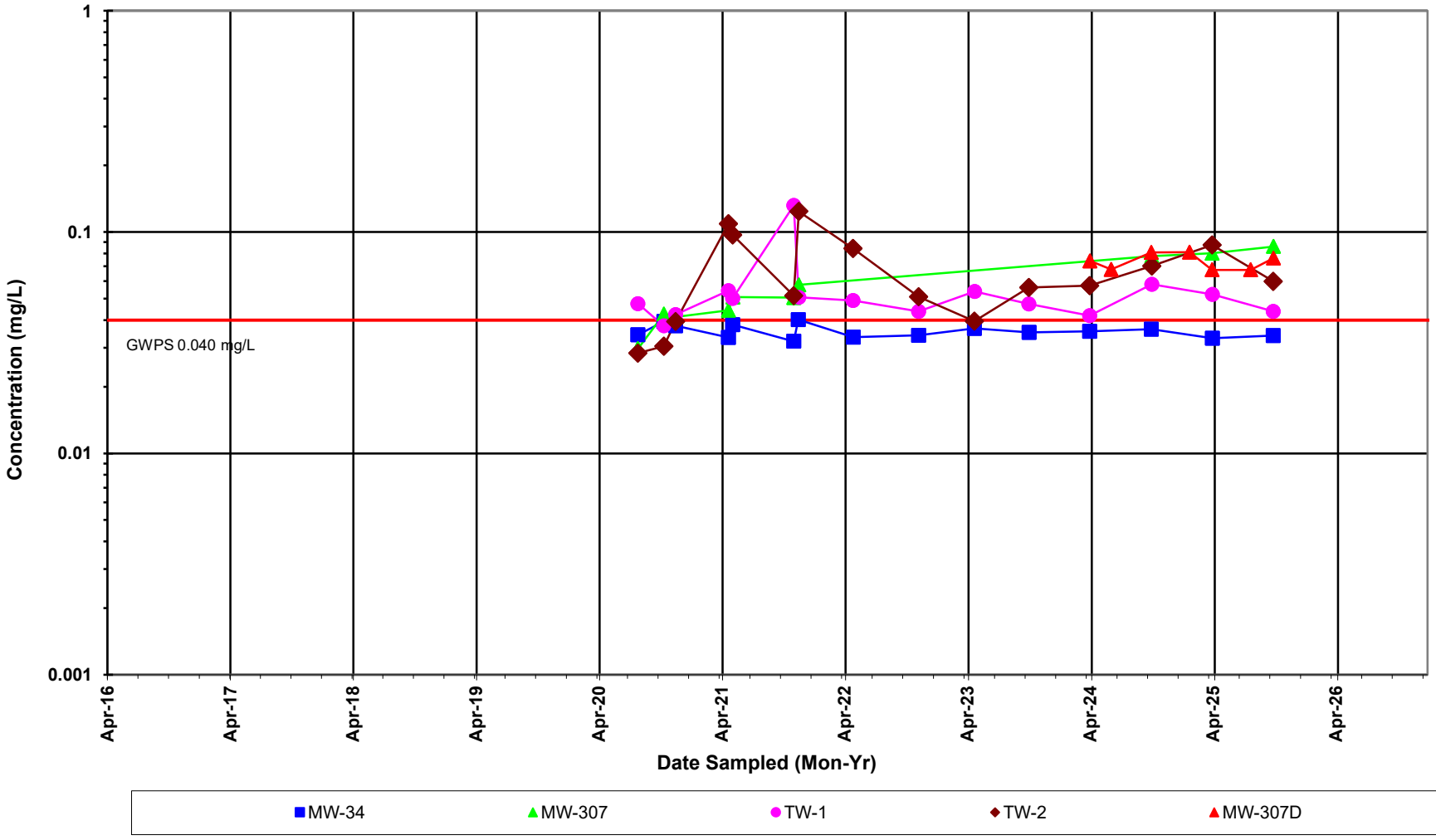
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 15B - LEAD - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

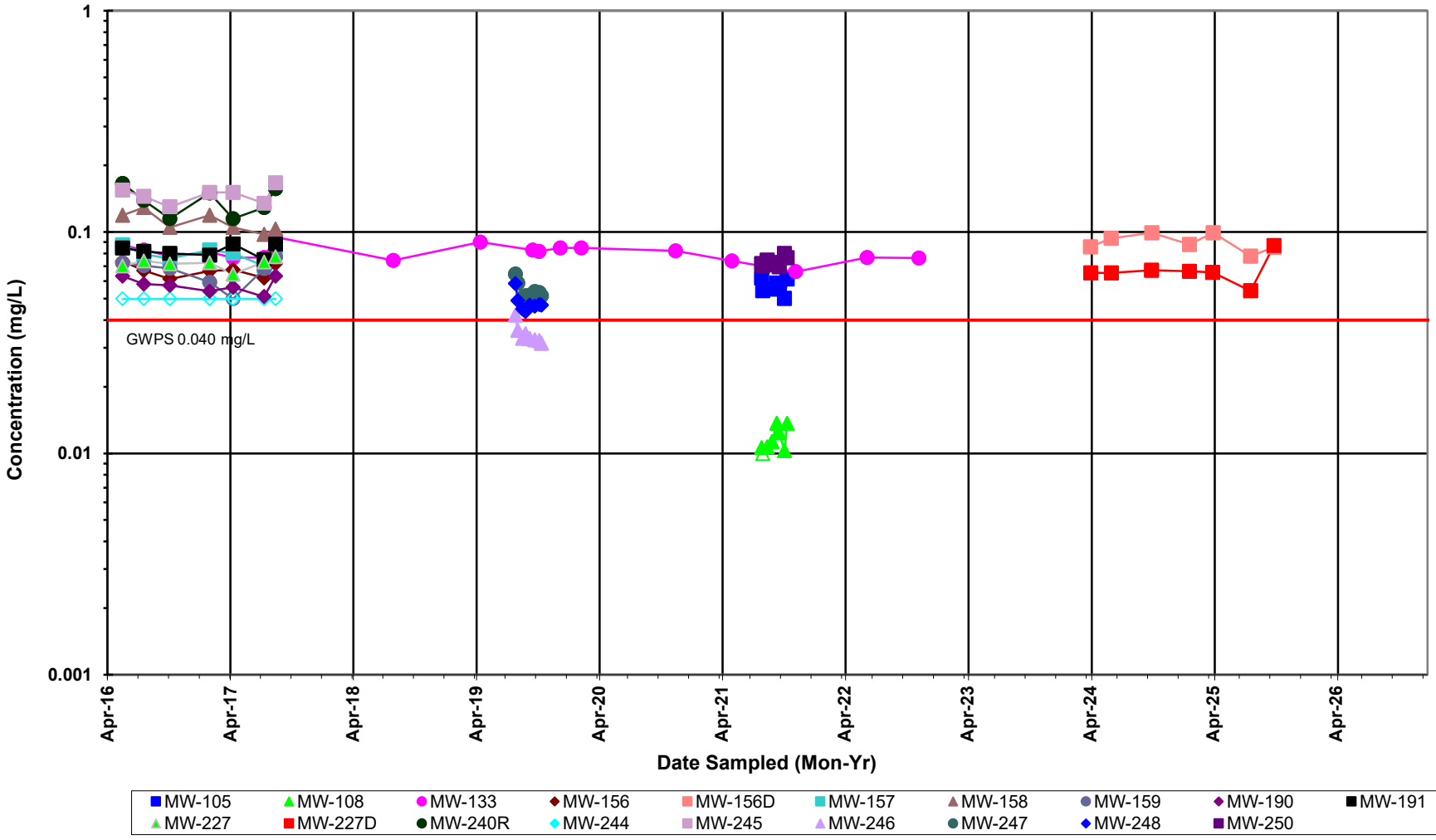
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 16A - LITHIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

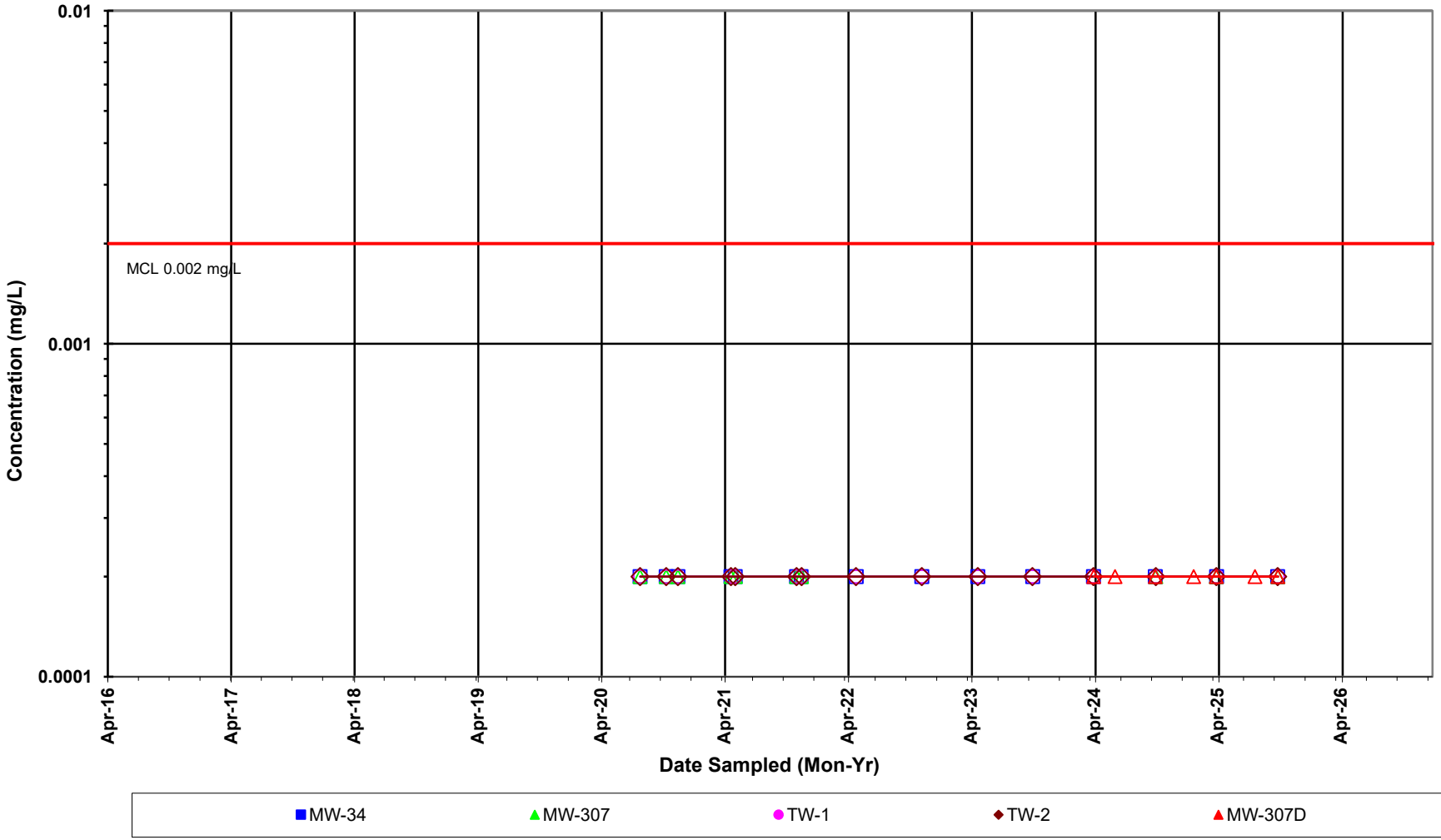
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 16B - LITHIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

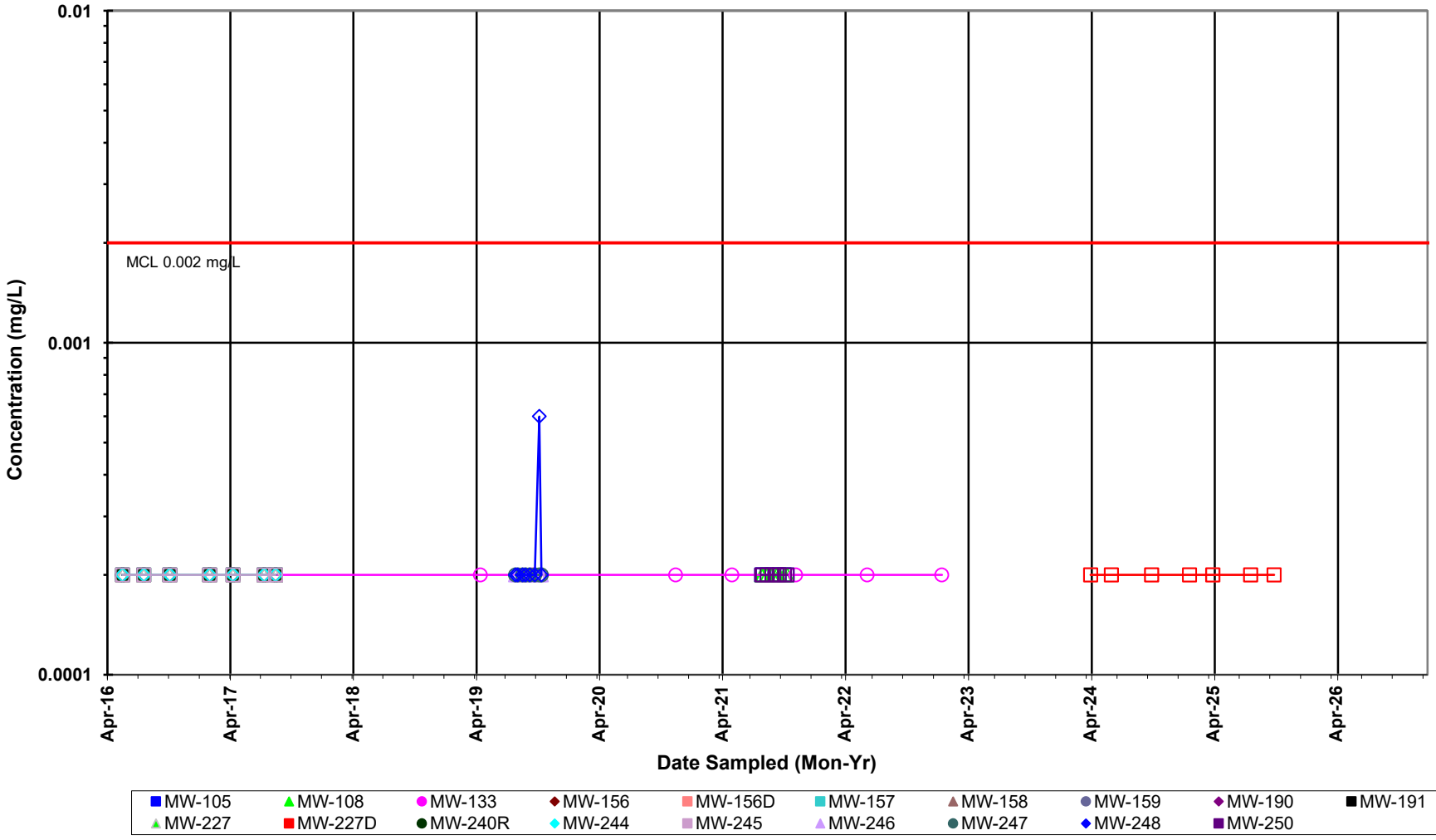
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 17A - MERCURY - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

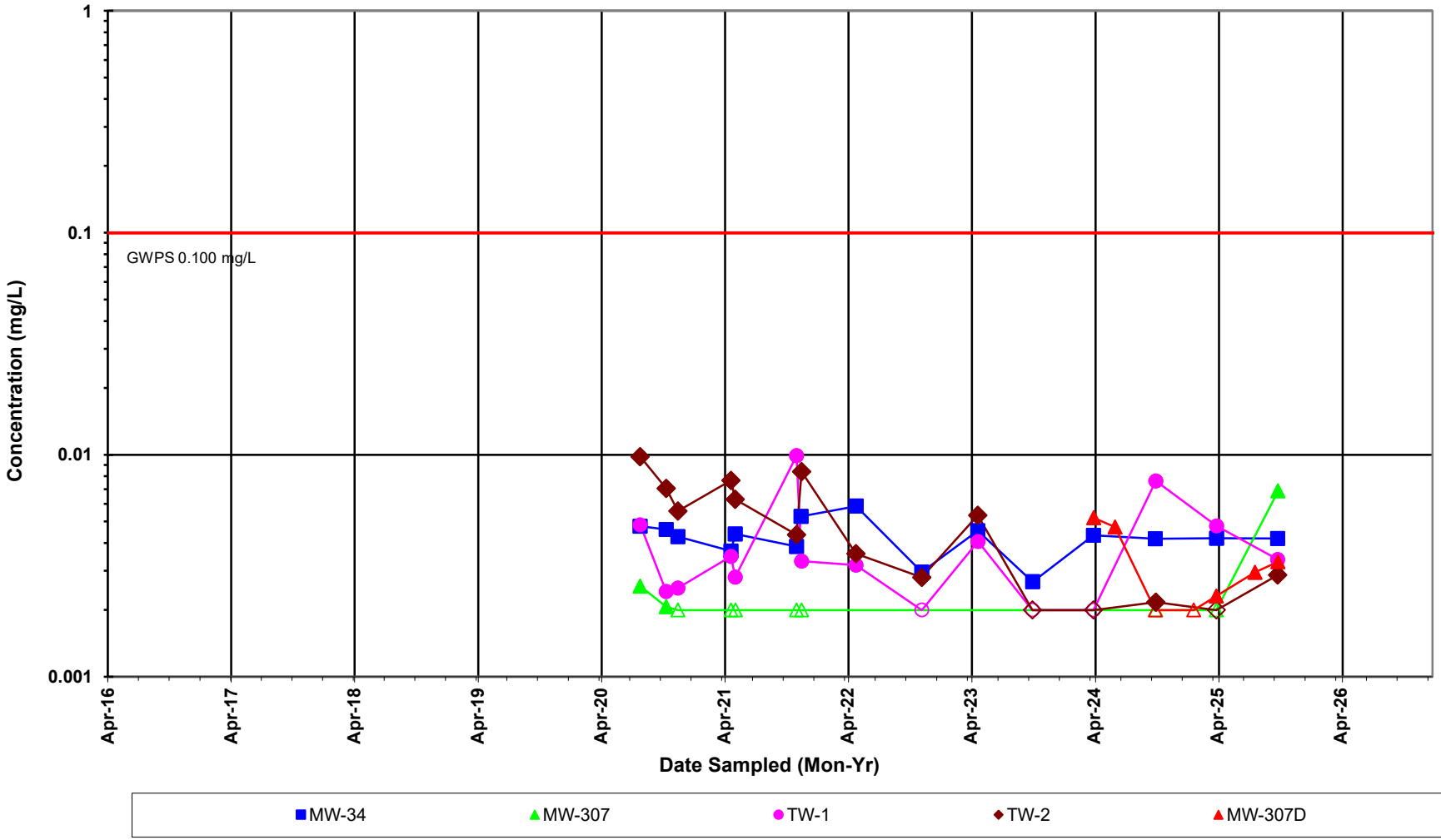
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 17B - MERCURY - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

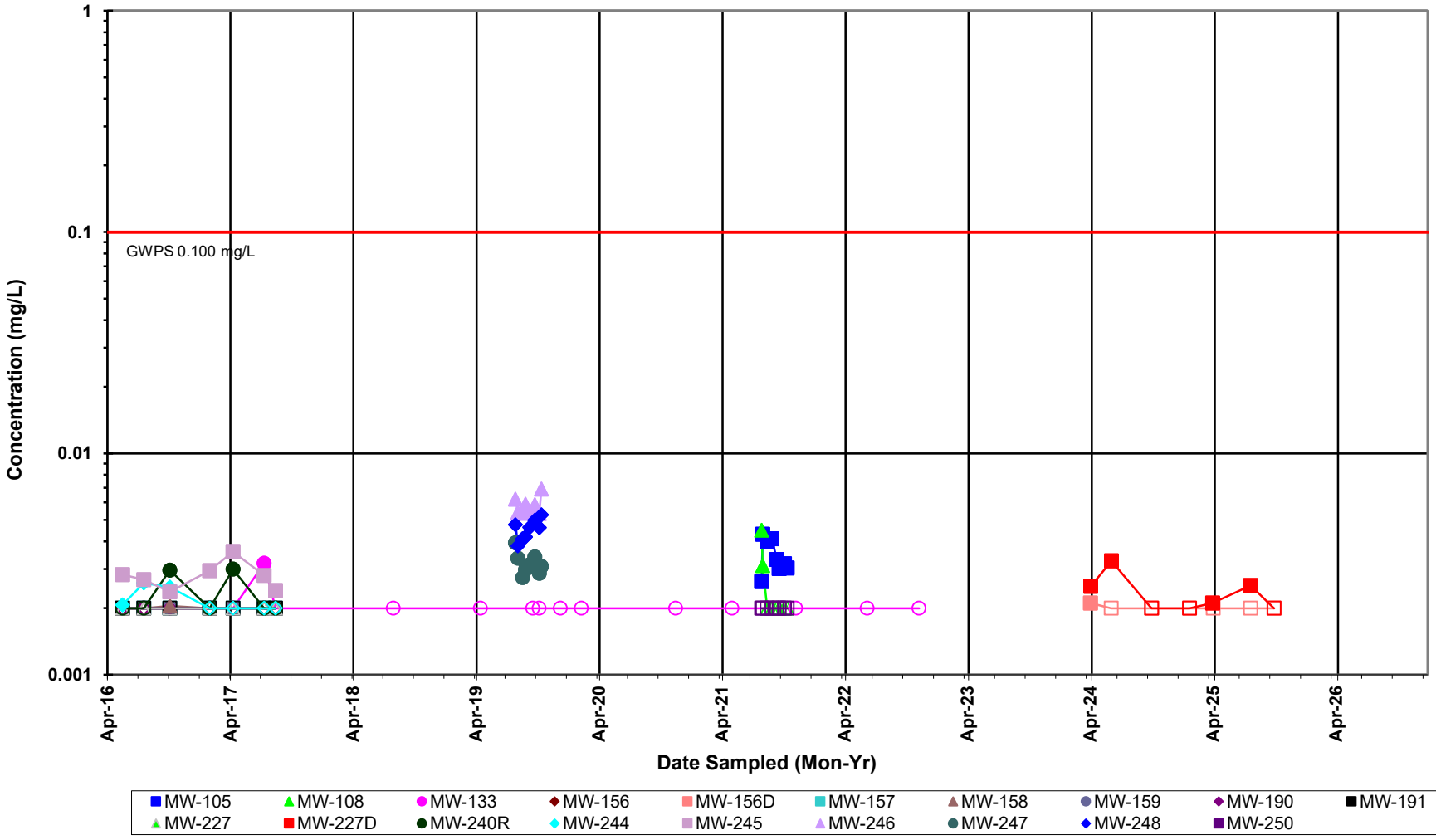
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 18A - MOLYBDENUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

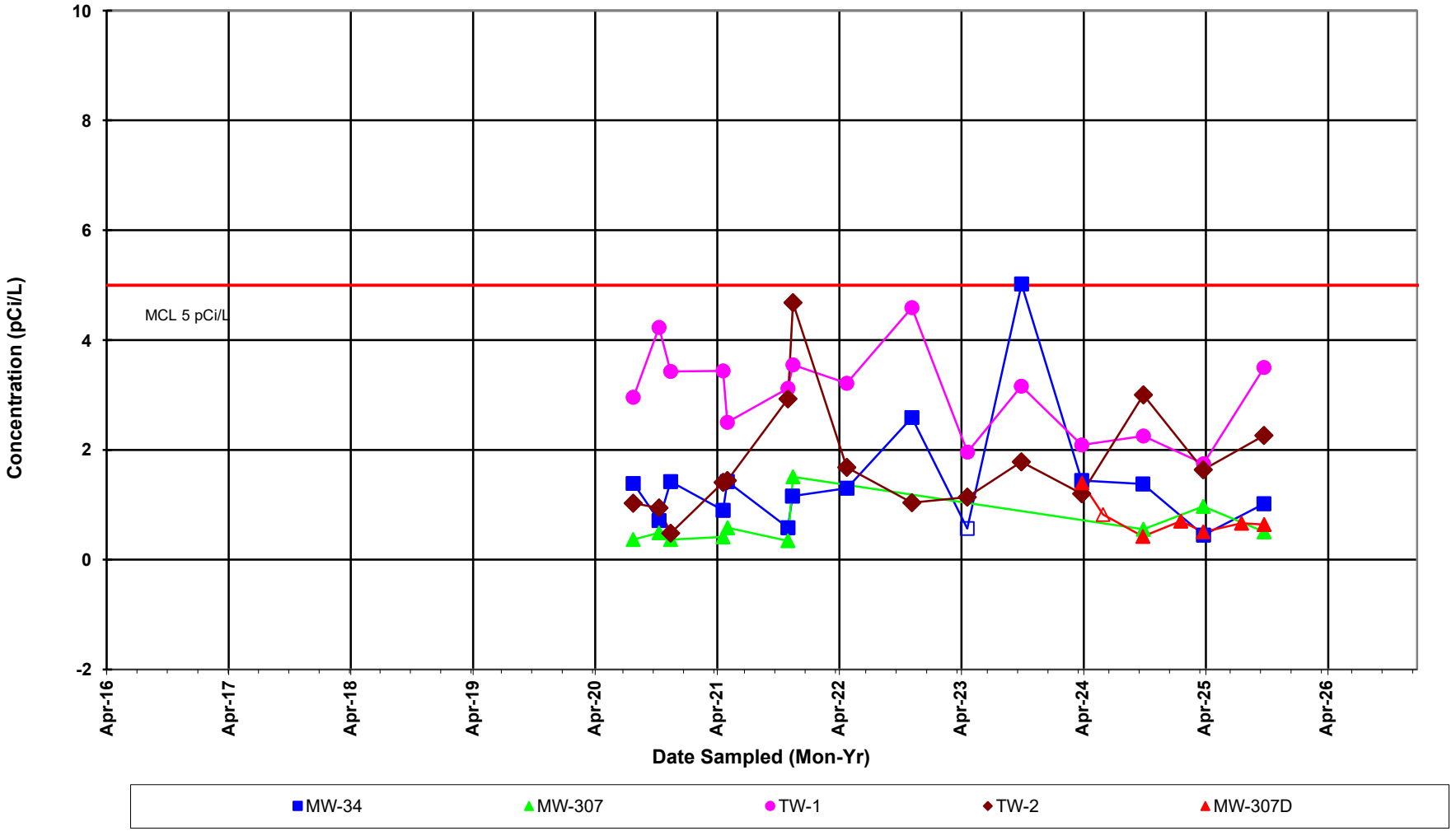
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 18B - MOLYBDENUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

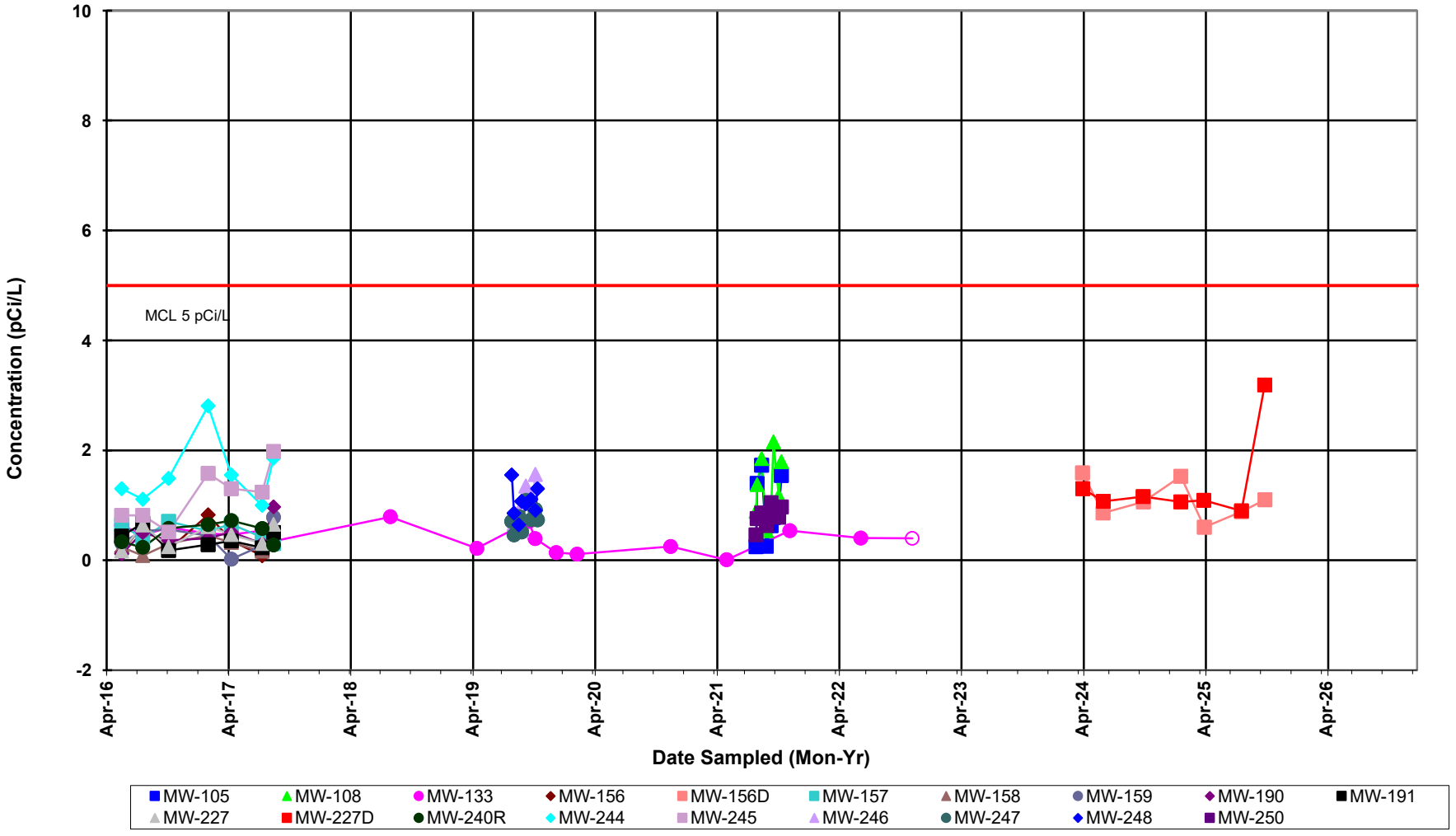
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 19A - RADIUM-226 & 228 - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

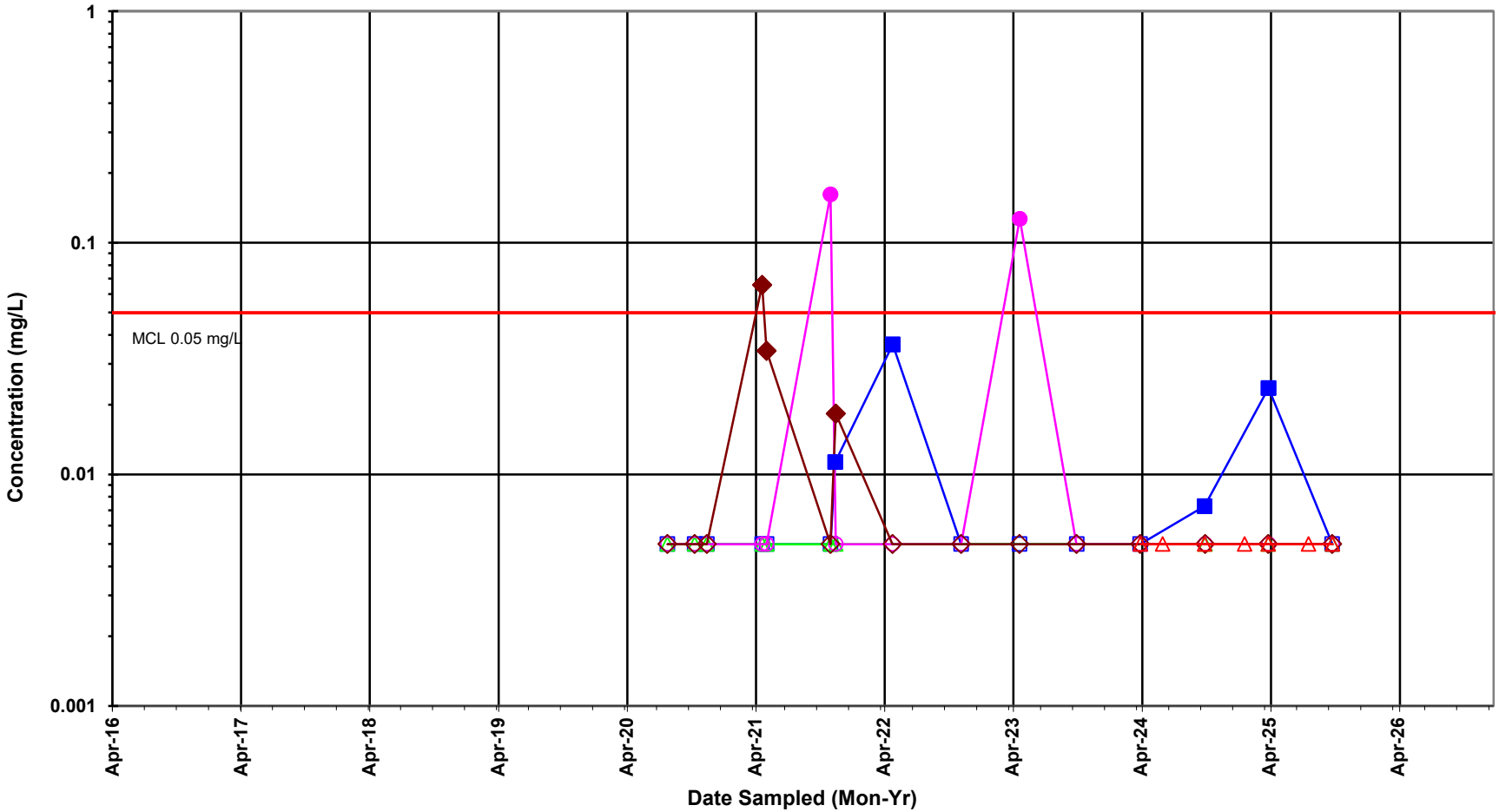
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 19B - RADIUM-226 & 228 - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

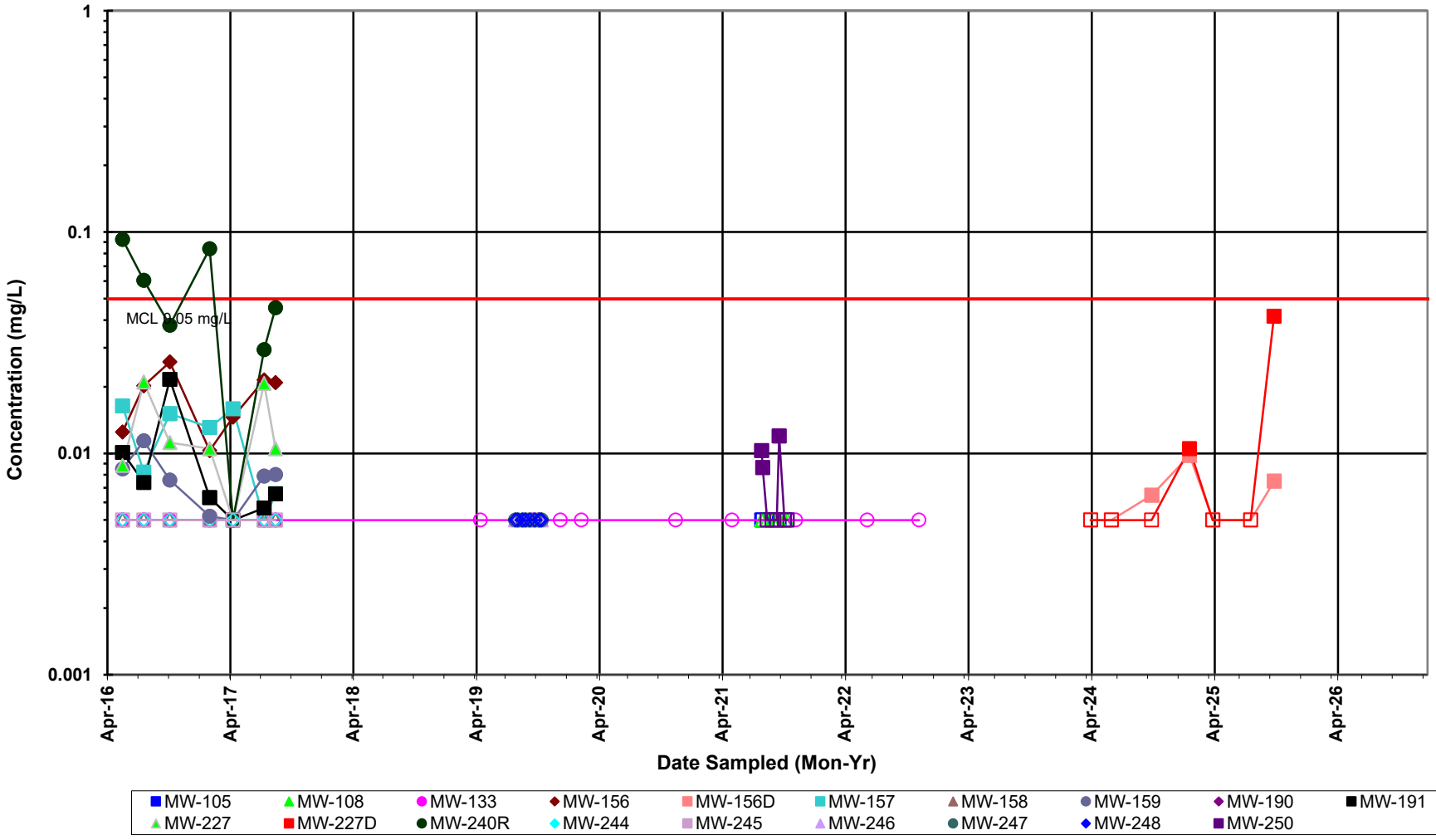
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 20A - SELENIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

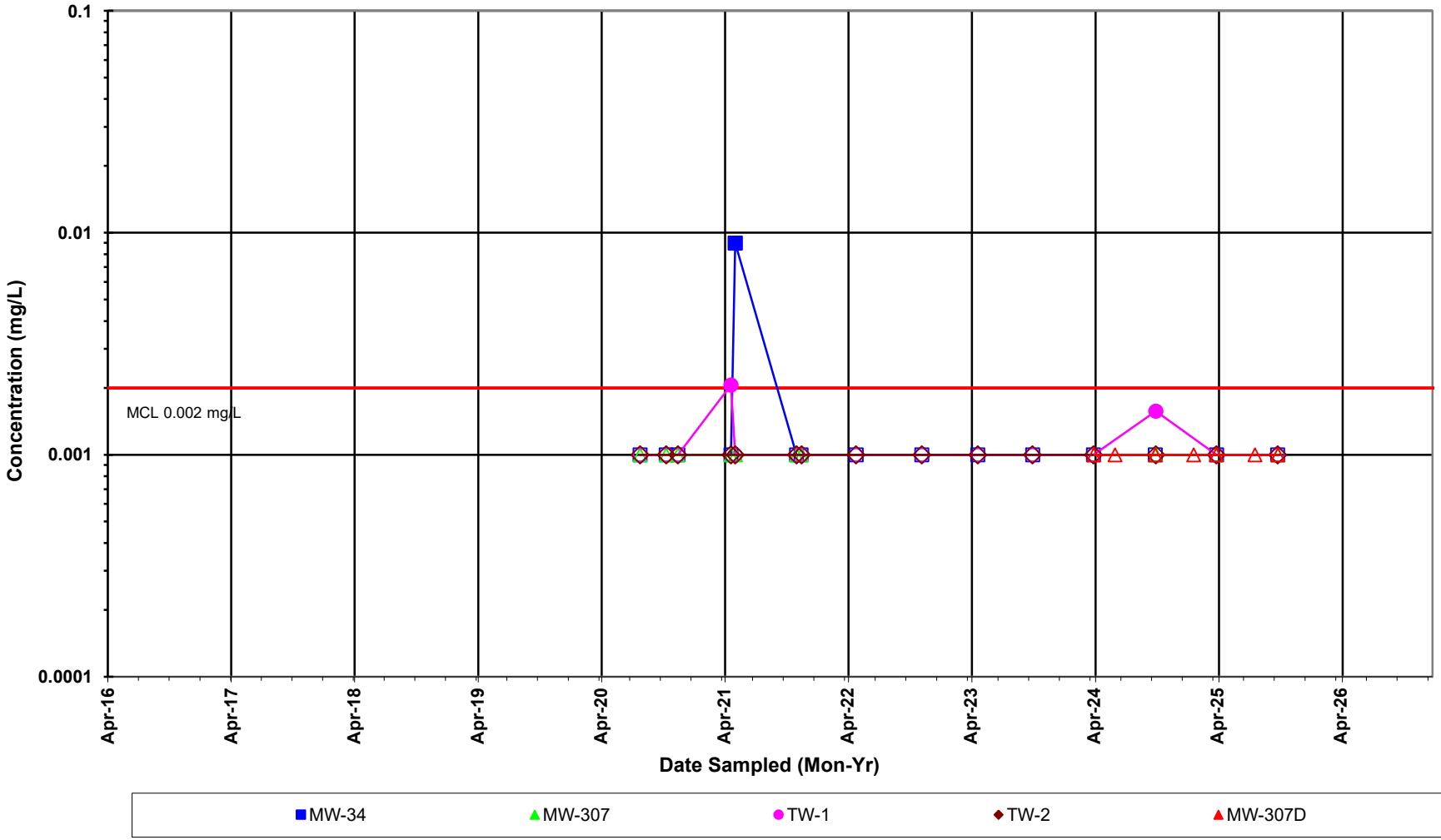
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 20B - SELENIUM - MONOFILL WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

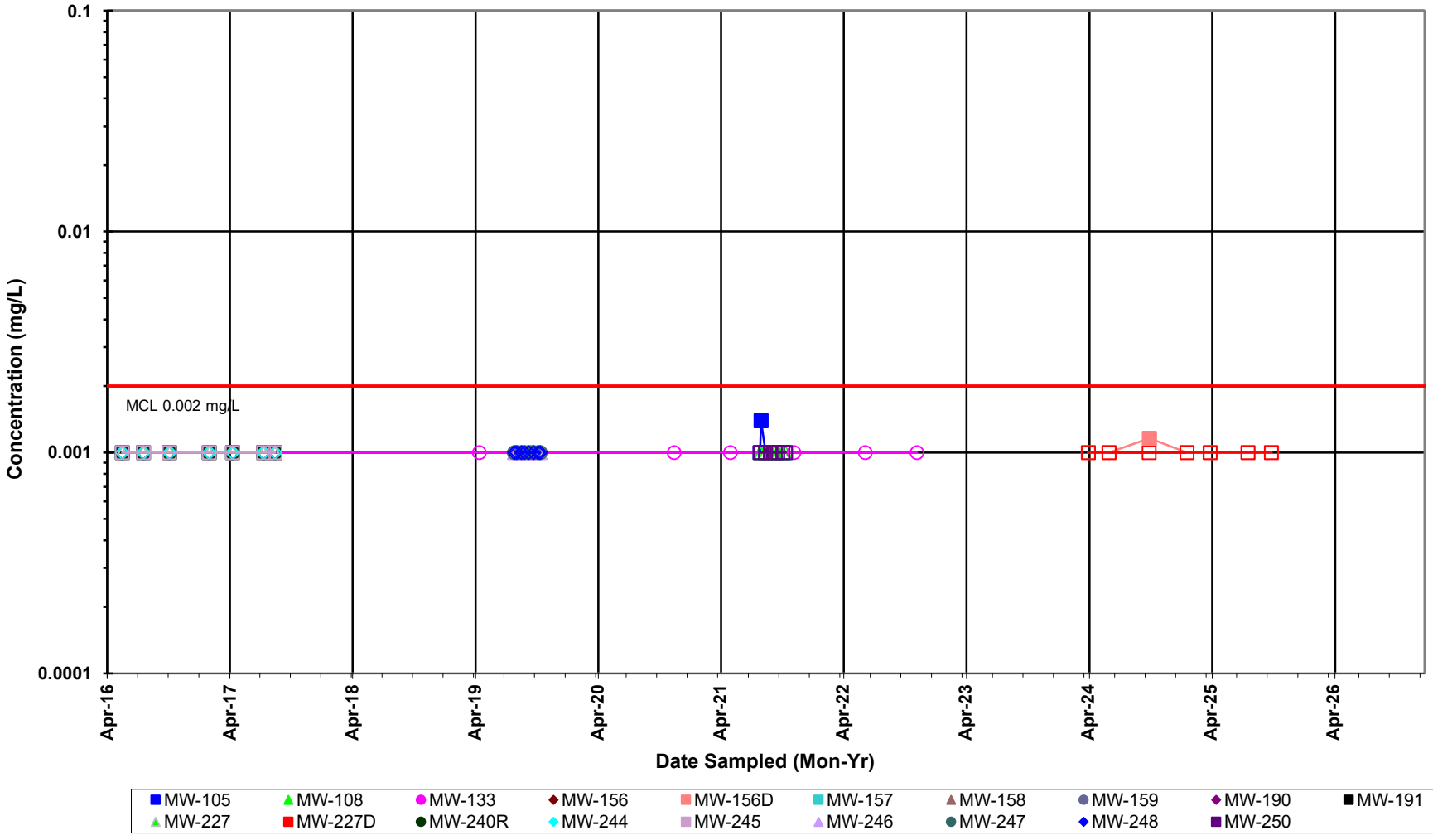
CCR MONOFILL

COUNCIL BLUFFS, IOWA

12592594

11/26/2025

FIGURE 21A - THALLIUM - BACKGROUND WELLS



*Open symbols denote a non-detect at reporting detection limit value.

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS, IOWA

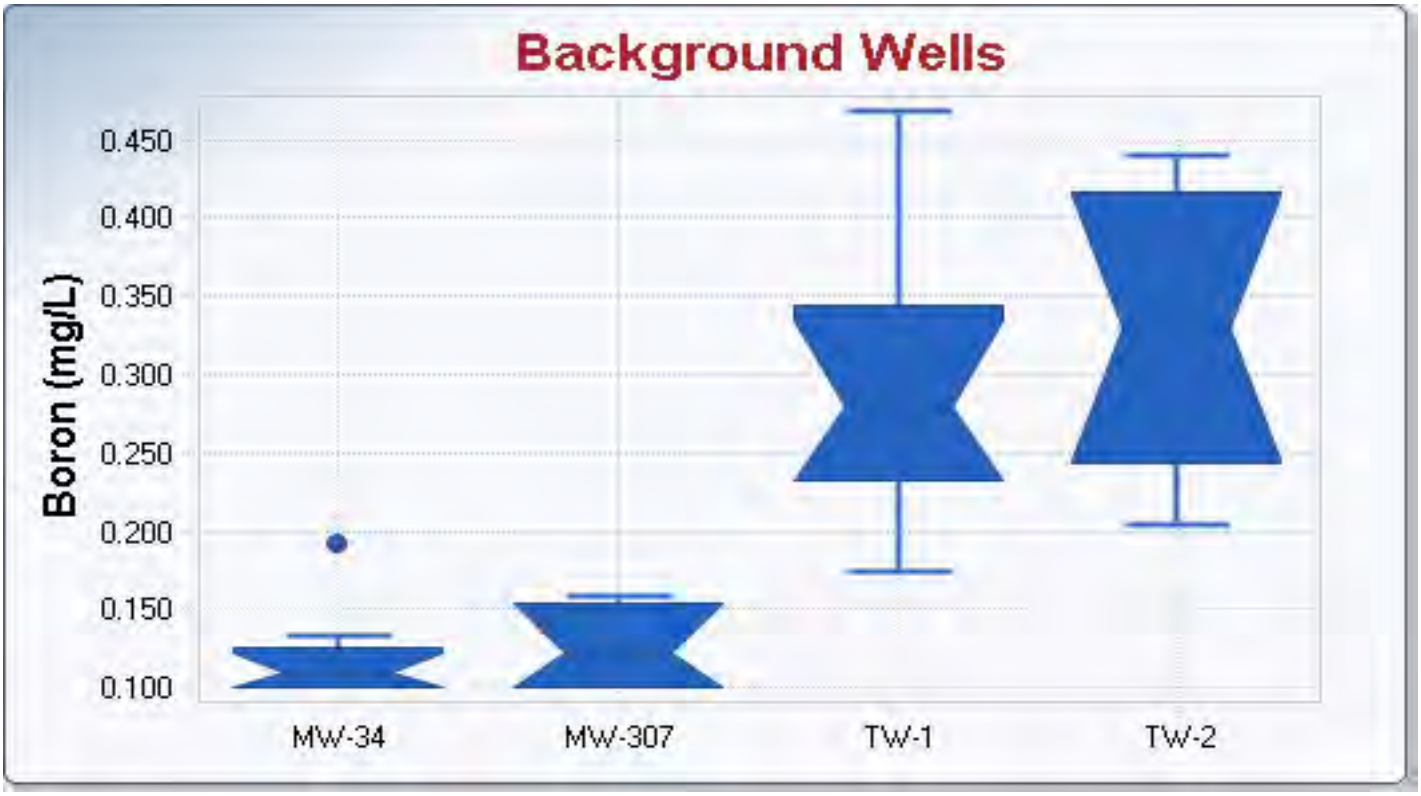
12592594

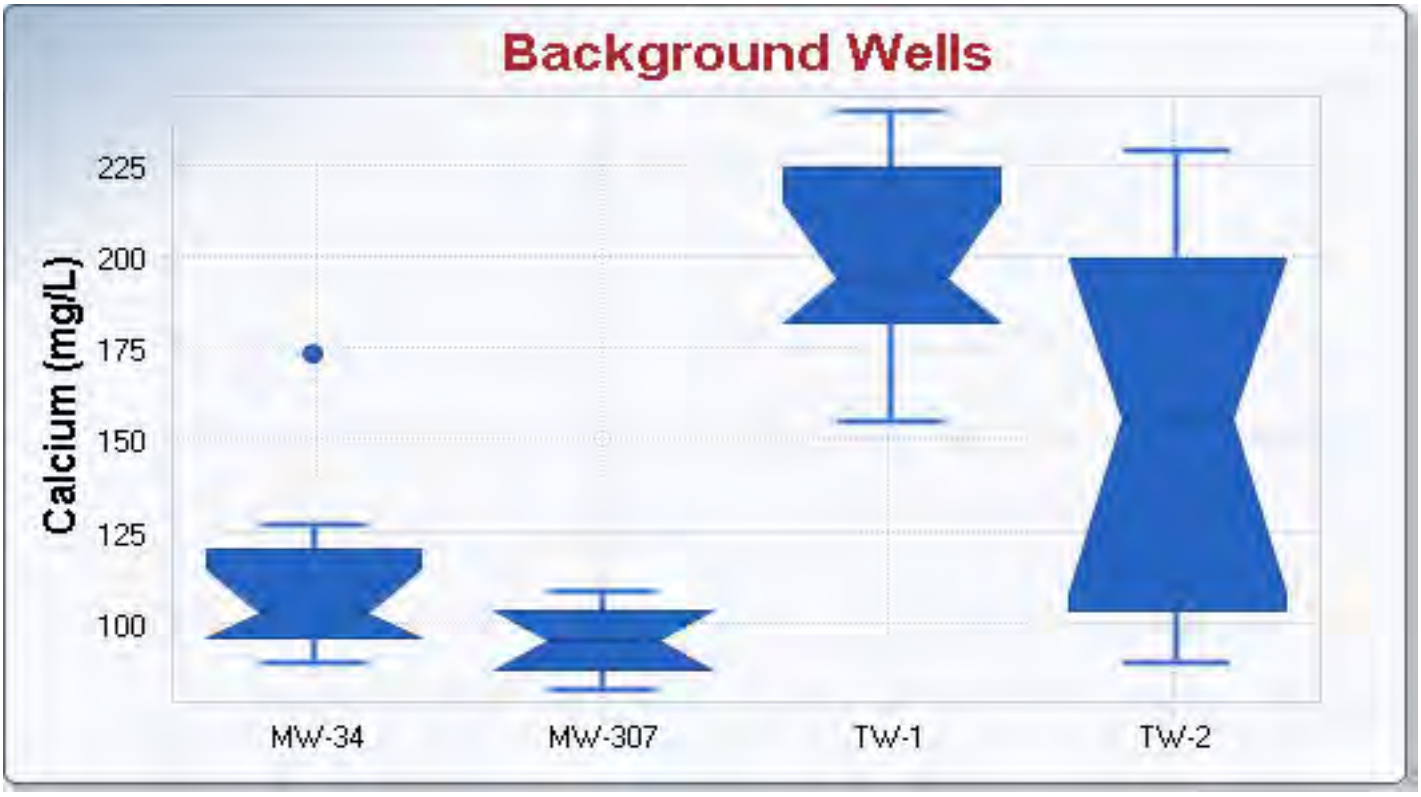
11/26/2025

FIGURE 21B - THALLIUM - MONOFILL WELLS

Appendix C

Box Plots for Background Monitoring Wells





GHD

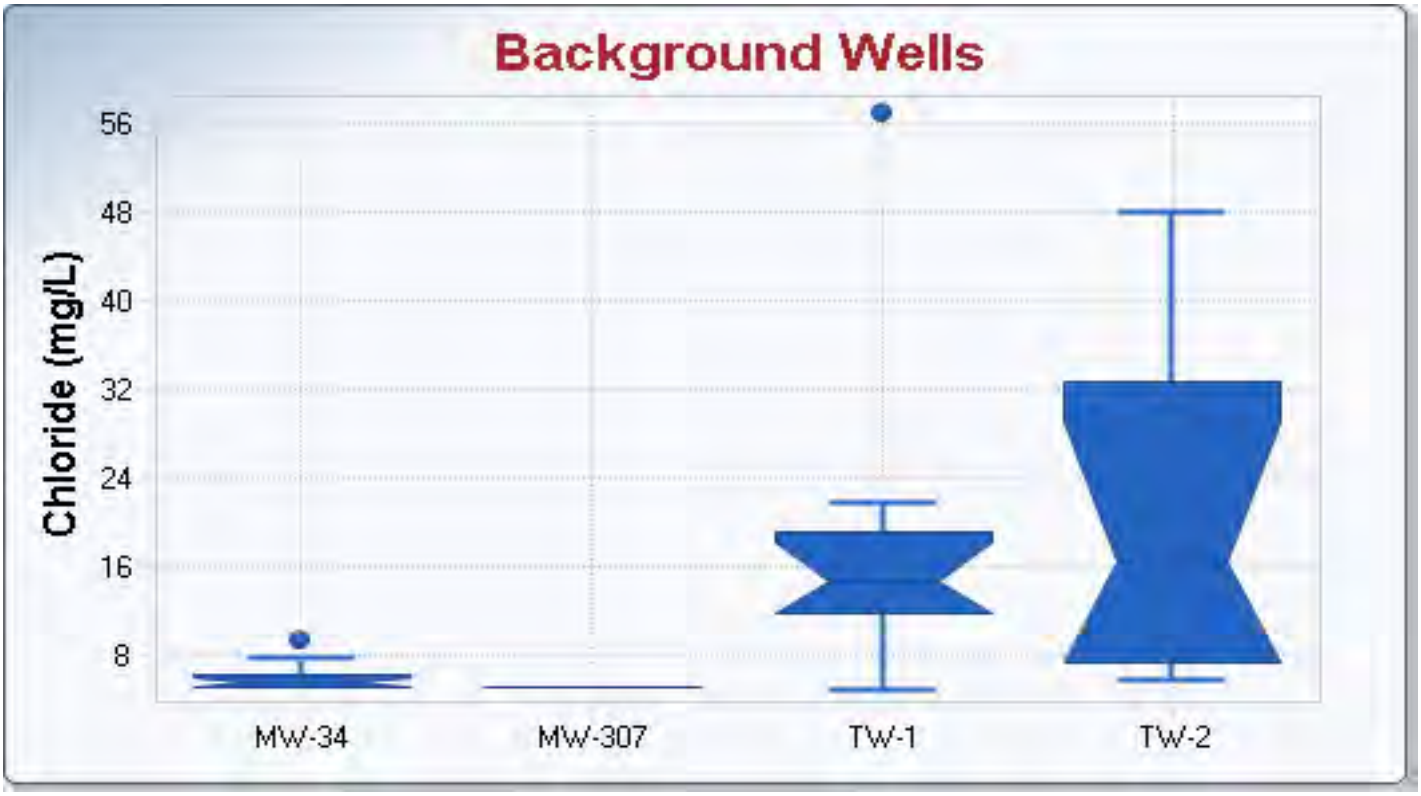
MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

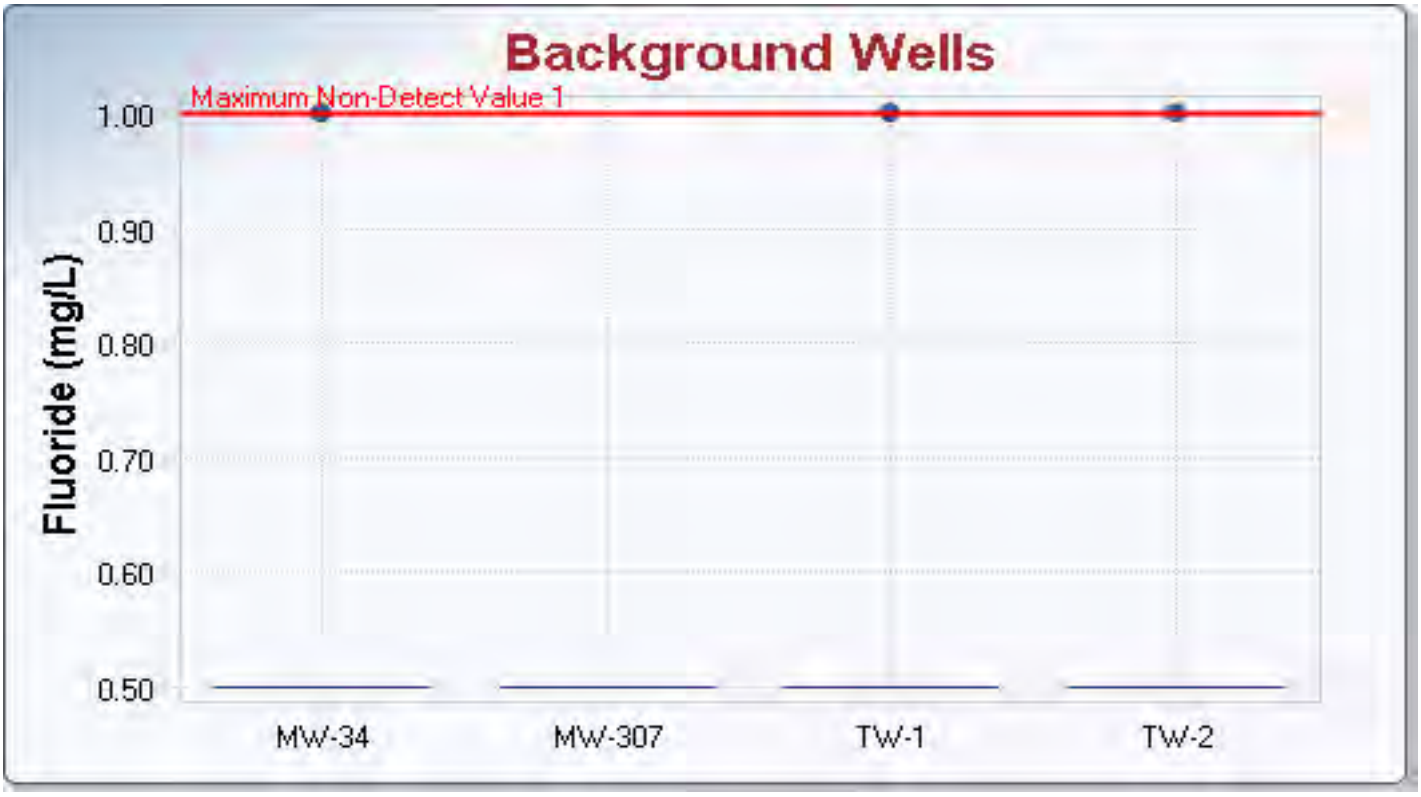
BORON AND CALCIUM
BACKGROUND WELL BOX PLOTS

Project No. **12592594**
Date **Aug. 2023**

FIGURE 1

G:\563\12592594\Workshare\Working Drafts\2023-08 Monofill ASD\ProUCL\New Outputs\12592594 Box Plots.xlsx\12592594 Box Plots.xlsx
Print Date: 8/23/2023 11:35 AM





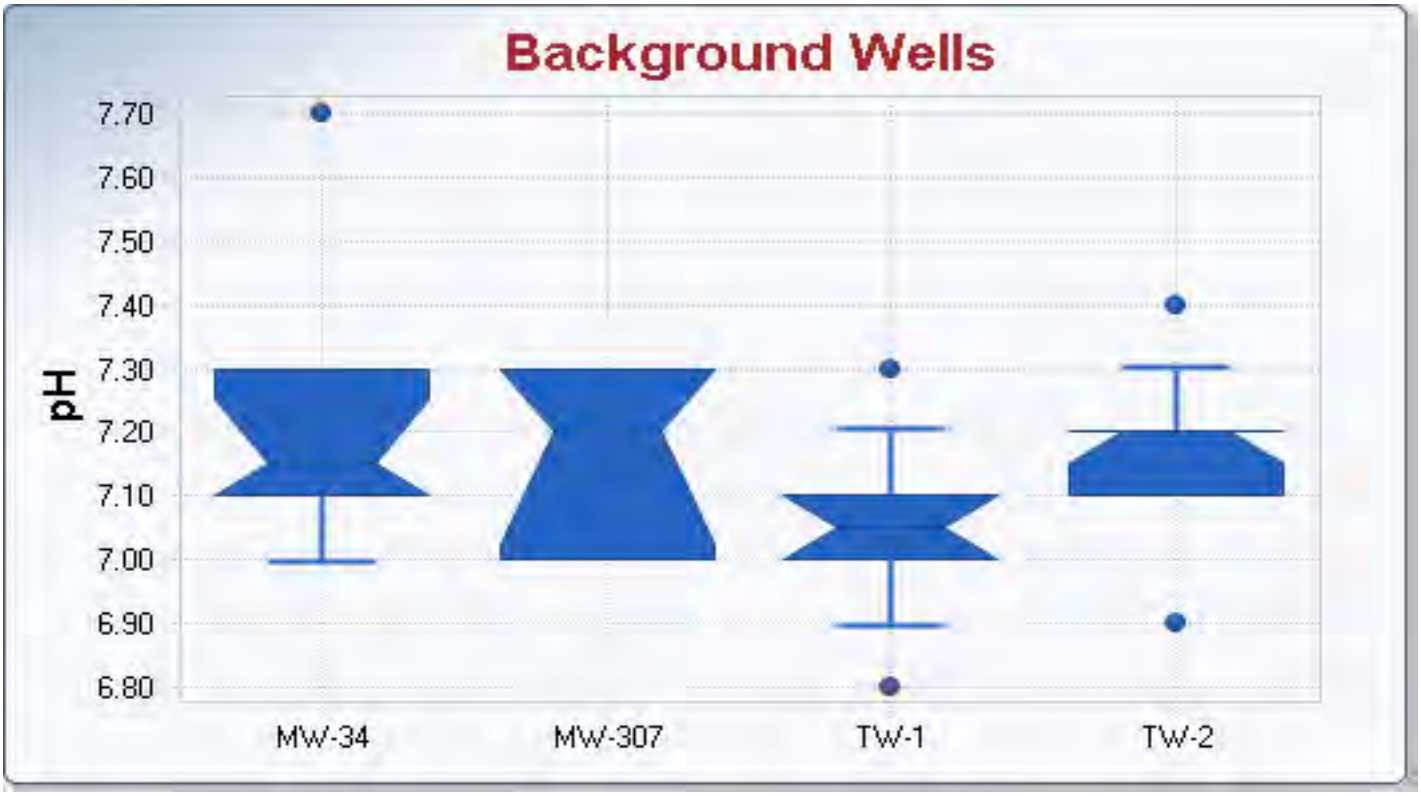
MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

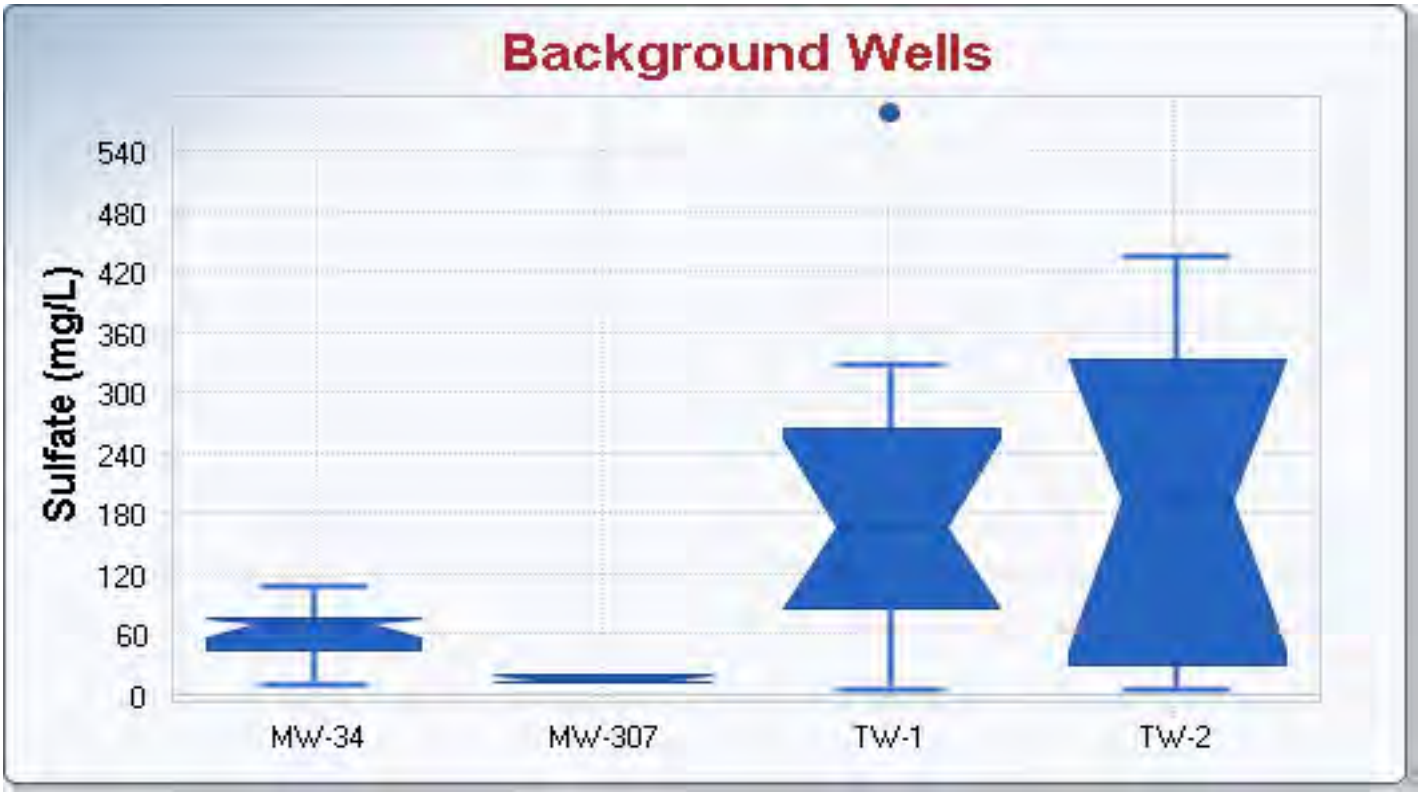
CHLORIDE AND FLUORIDE
BACKGROUND WELL BOX PLOTS

Project No. **12592594**
Date **Aug. 2023**

FIGURE 2

G:\563\12592594\Workshare\Working Drafts\2023-08 Monofill ASD\ProUCL\New Outputs\12592594 Box Plots.xlsx\12592594 Box Plots.xlsx
Print Date: 8/23/2023 11:35 AM





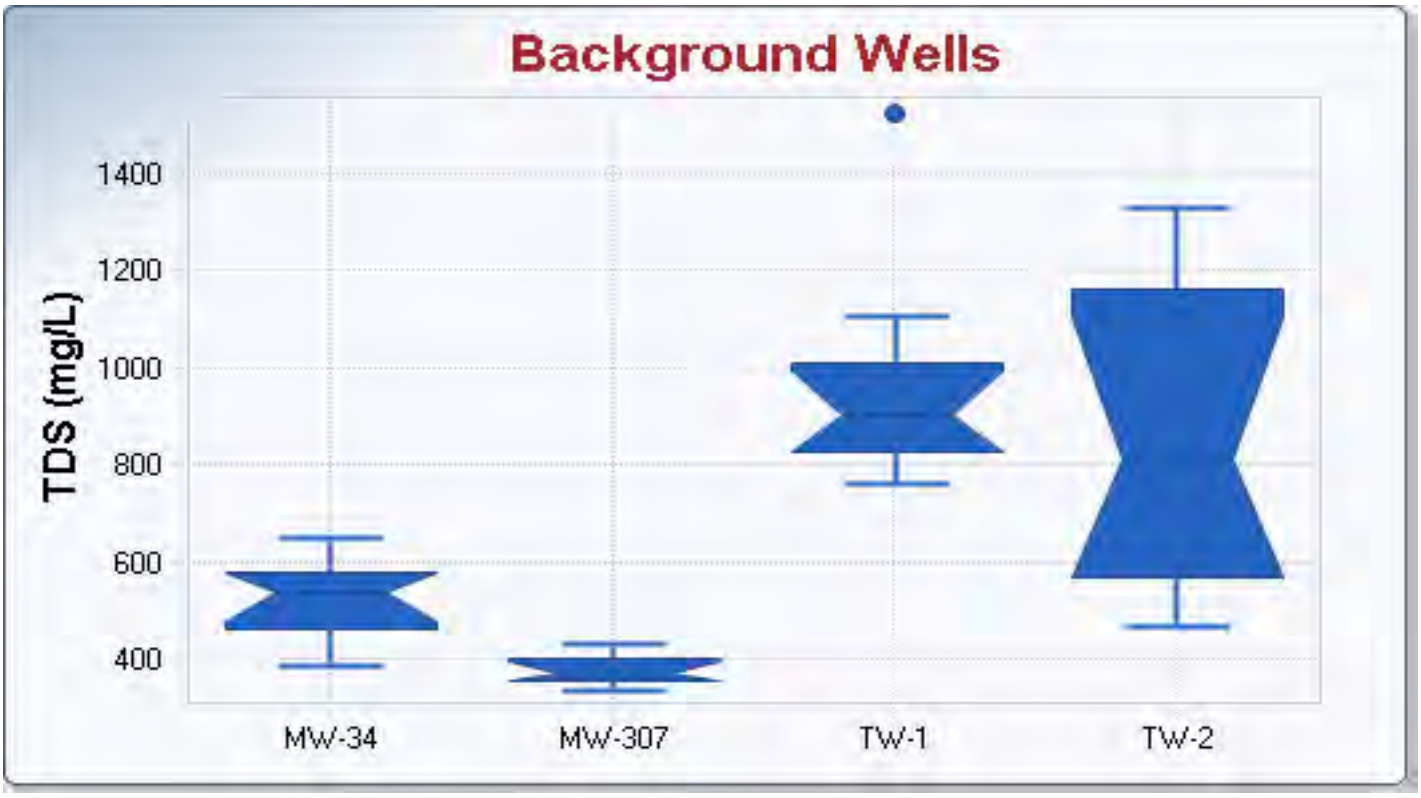
MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

PH AND SULFATE
BACKGROUND WELL BOX PLOTS

Project No. **12592594**
Date **Aug. 2023**

FIGURE 3

G:\563\12592594\Workshare\Working Drafts\2023-08 Monofill ASD\ProUCL\New Outputs\12592594 Box Plots.xlsx\12592594 Box Plots.xlsx
Print Date: 8/23/2023 11:35 AM



MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

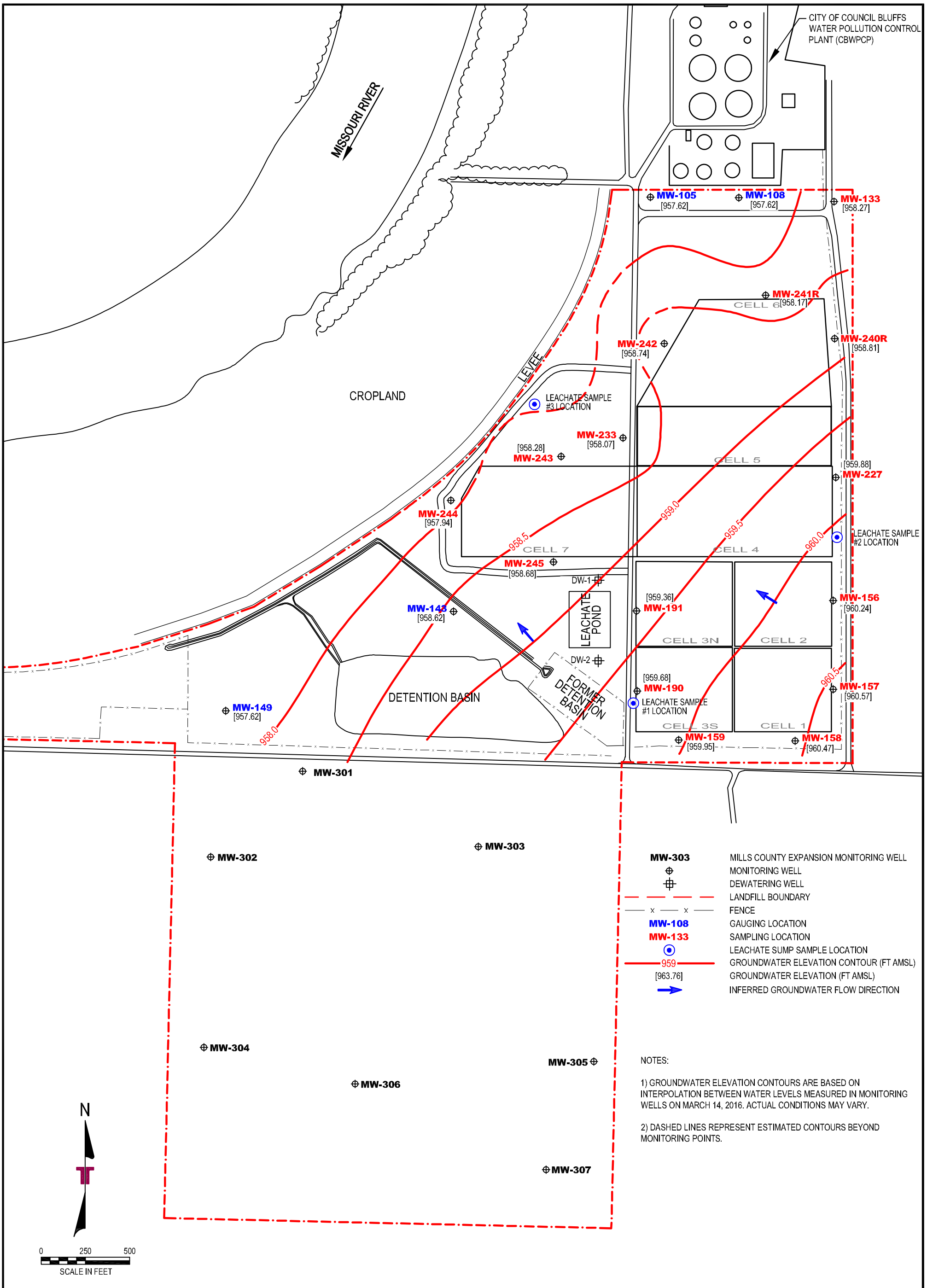
TOTAL DISSOLVED SOLIDS
BACKGROUND WELL BOX PLOTS

Project No. **12592594**
Date **Aug. 2023**

FIGURE 4

Appendix D

Groundwater Flow Maps



MW-303	MILLS COUNTY EXPANSION MONITORING WELL
⊕	MONITORING WELL
⊞	DEWATERING WELL
— — —	LANDFILL BOUNDARY
— x — x —	FENCE
MW-108	GAUGING LOCATION
MW-133	SAMPLING LOCATION
◉	LEACHATE SUMP SAMPLE LOCATION
959	GROUNDWATER ELEVATION CONTOUR (FT AMSL)
[963.76]	GROUNDWATER ELEVATION (FT AMSL)
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON MARCH 14, 2016. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-3/14/16

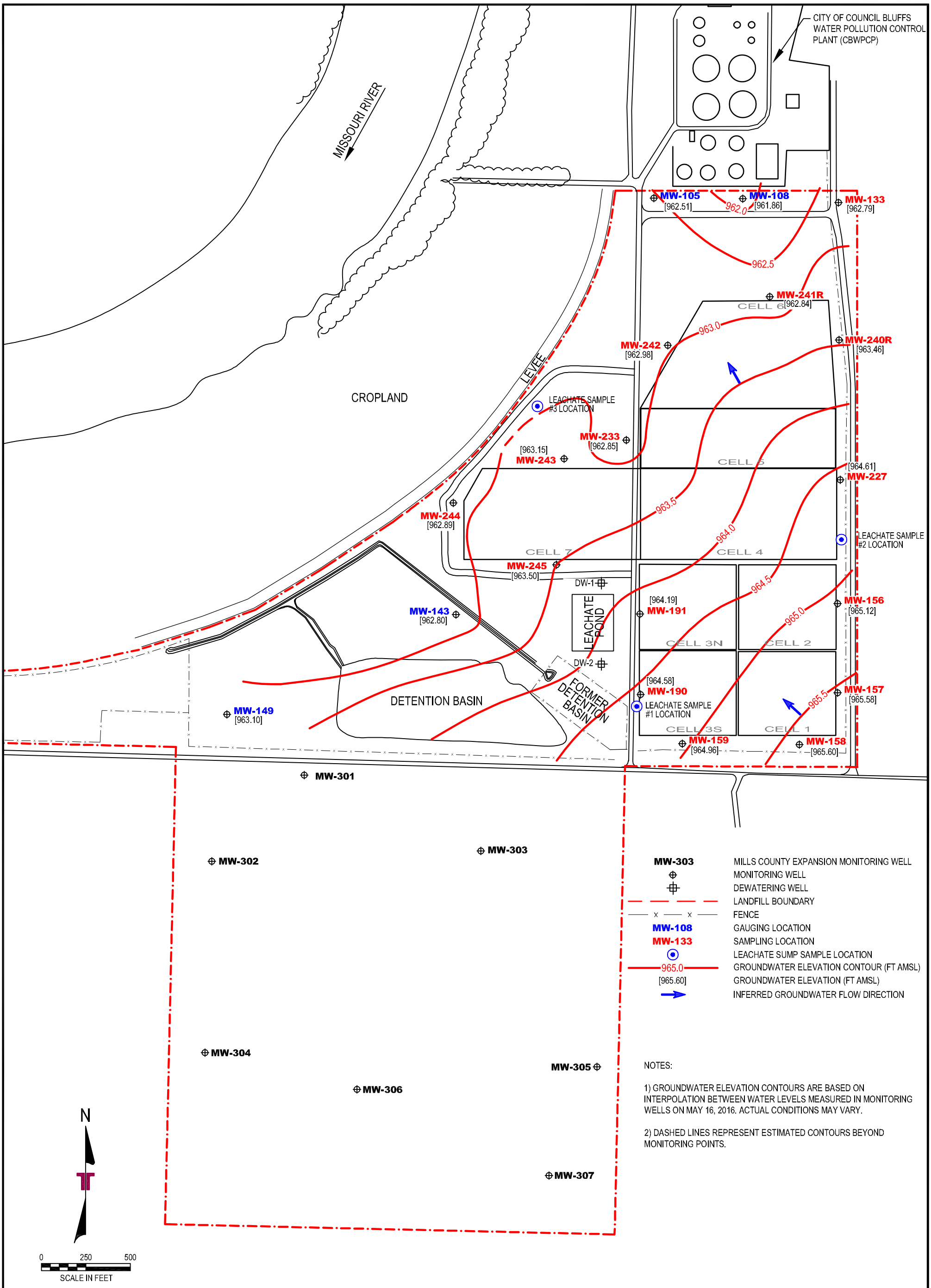
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	3



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON MAY 16, 2016. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-5/16/16

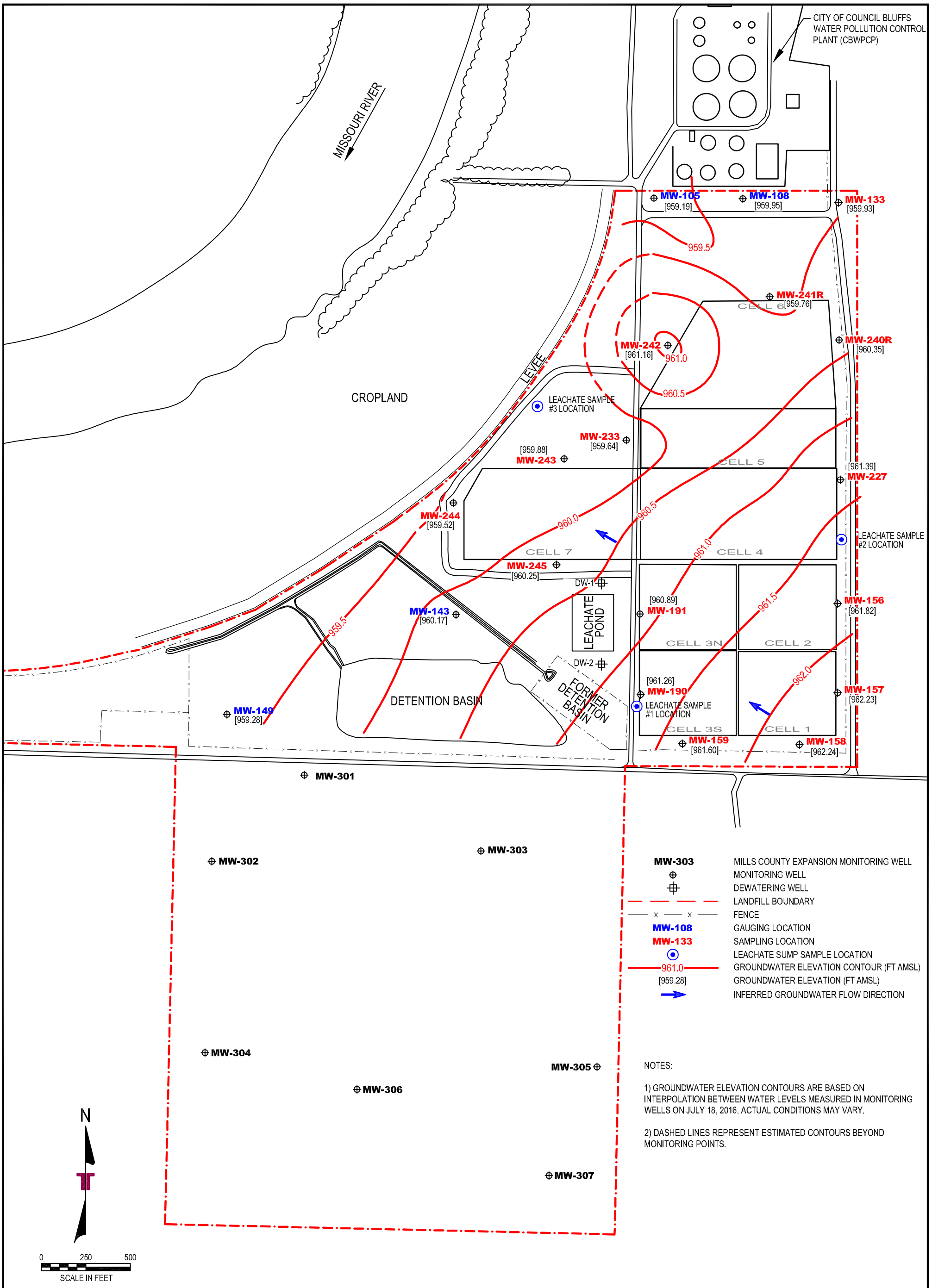
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	4



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON JULY 18, 2016. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-7/18/16

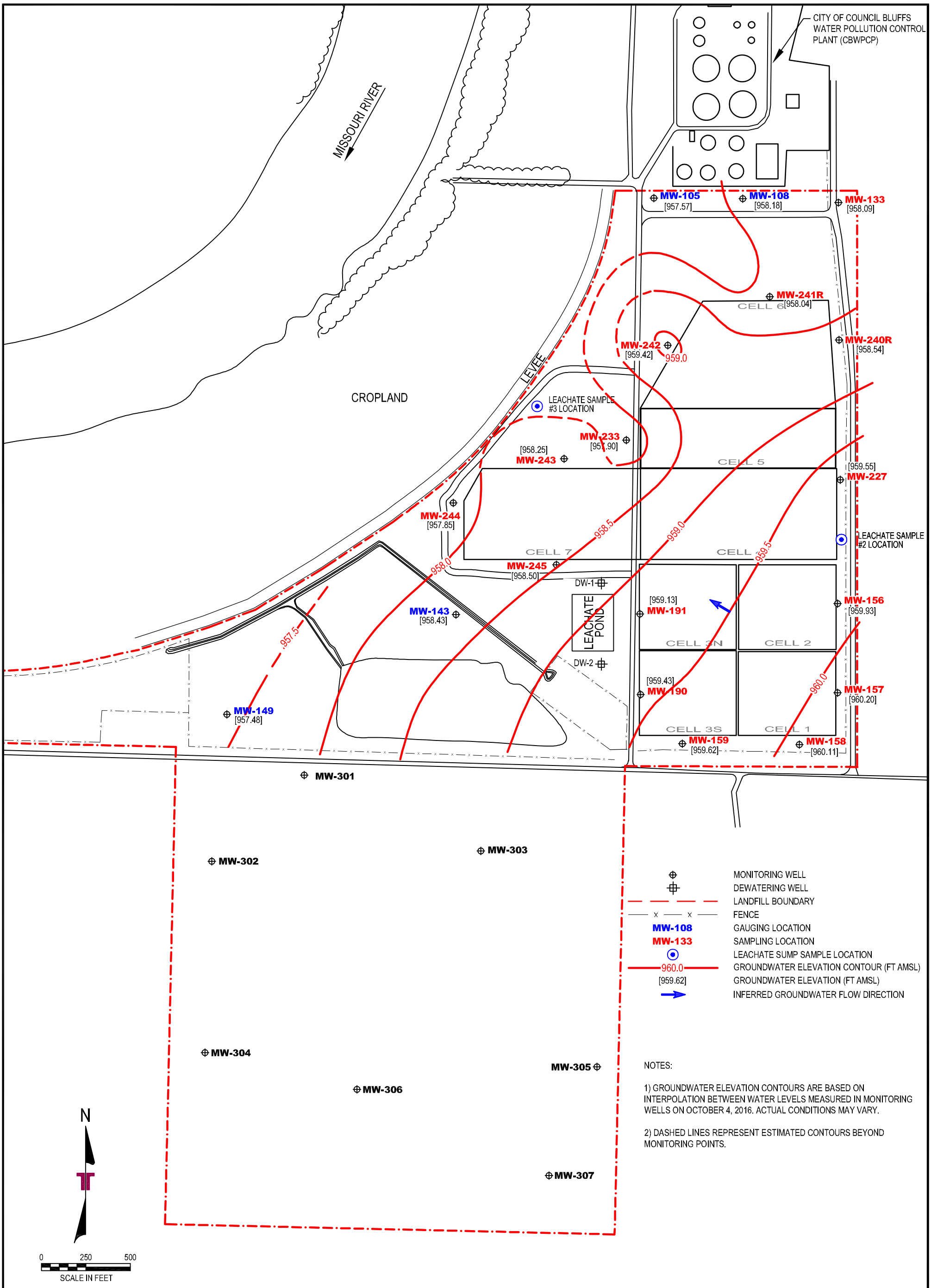
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	5



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 4, 2016. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-10/4/16

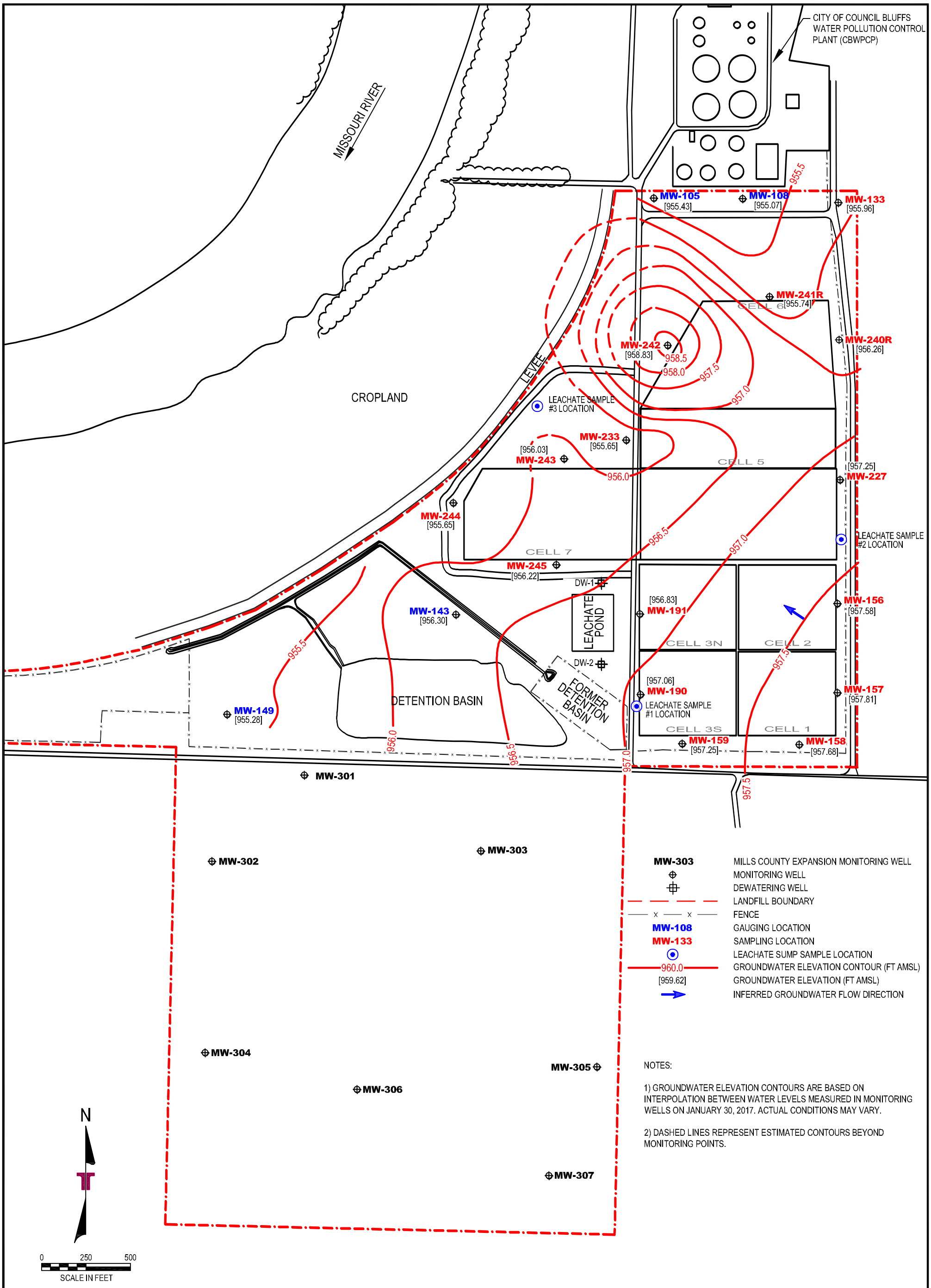
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	6



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON JANUARY 30, 2017. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-1/30/17

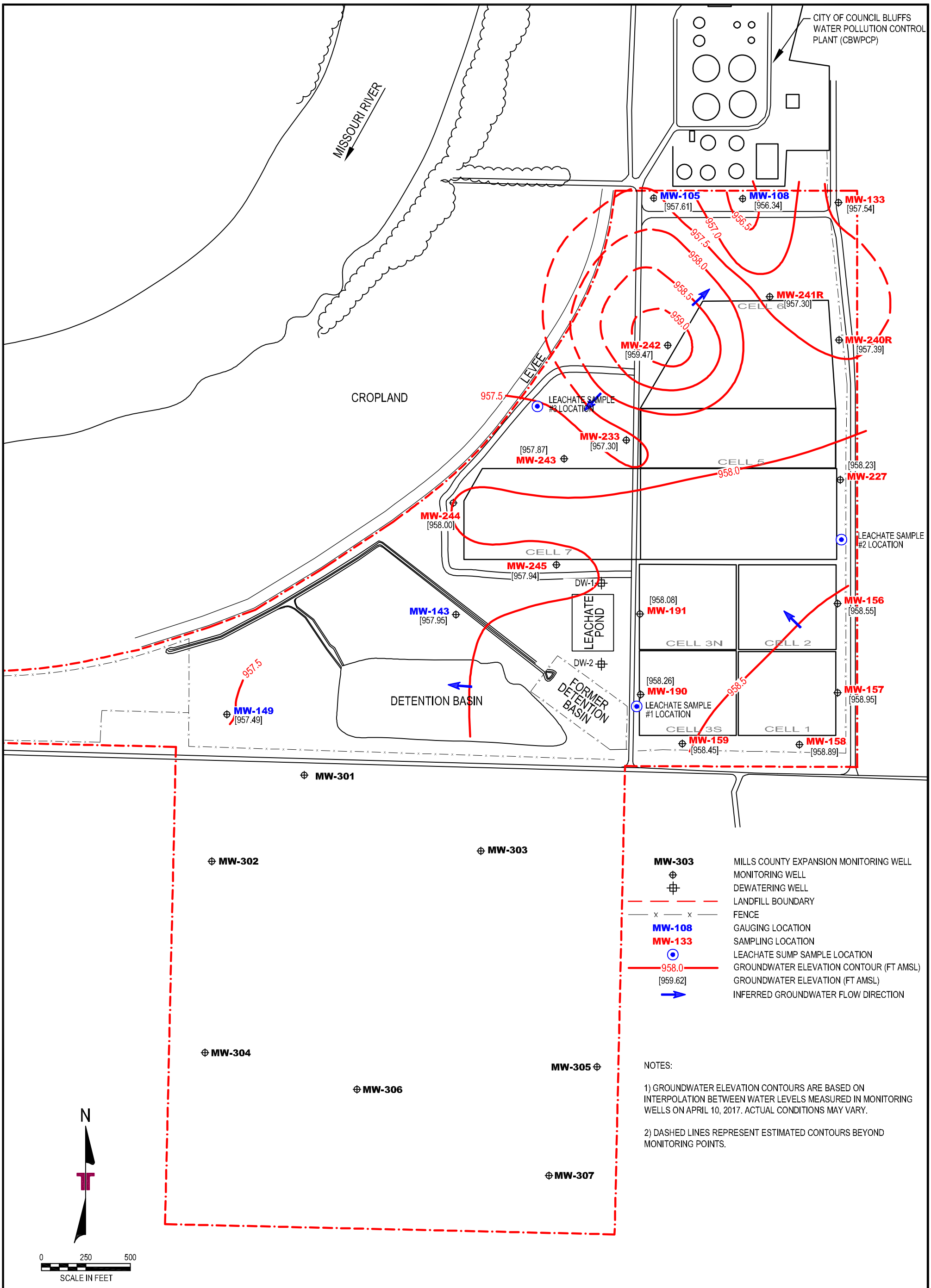
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	7



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON APRIL 10, 2017. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-4/10/17

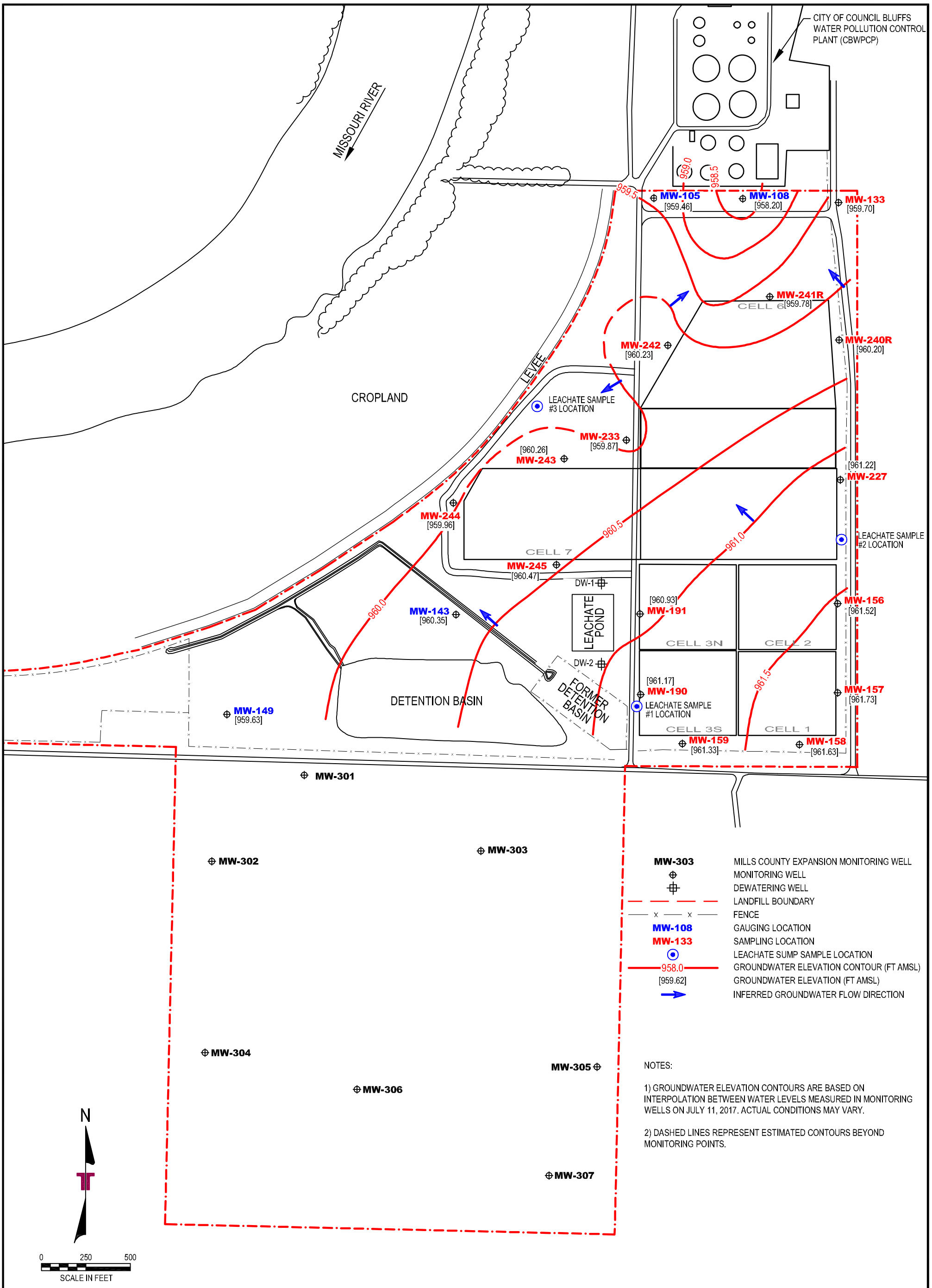
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	8



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON JULY 11, 2017. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-7/11/17

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	9

CITY OF COUNCIL BLUFFS WATER POLLUTION CONTROL PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

MW-105 [957.87]

MW-108 [957.64]

MW-133 [958.12]

958.0

MW-241R [955.16]

CELL 6

MW-242 [958.58]

MW-240R [958.52]

LEACHATE SAMPLE #3 LOCATION

MW-233 [958.19]

MW-243 [958.56]

[959.52]

MW-227

MW-244 [958.27]

959.5

LEACHATE SAMPLE #2 LOCATION

CELL 7

MW-245 [958.76]

959.0

DW-1

[959.20]

MW-191

MW-156 [959.73]

CELL 3N

CELL 2

MW-143 [958.49]

LEACHATE POND

DW-2

958.5

958.0

[959.40]

MW-190

MW-157 [959.88]

LEACHATE SAMPLE #1 LOCATION

DETENTION BASIN

FORMER DETENTION BASIN

CELL 3S

CELL 1

MW-149 [957.35]

MW-159 [959.48]

MW-158 [959.73]

MW-301

MW-303

MW-302

MW-304

MW-305

MW-306

MW-307

N

0 250 500

SCALE IN FEET

MW-303	MILLS COUNTY EXPANSION MONITORING WELL
⊕	MONITORING WELL
⊞	DEWATERING WELL
— — —	LANDFILL BOUNDARY
— x — x —	FENCE
MW-108	GAUGING LOCATION
MW-133	SAMPLING LOCATION
⊙	LEACHATE SUMP SAMPLE LOCATION
958.0	GROUNDWATER ELEVATION CONTOUR (FT AMSL)
[959.62]	GROUNDWATER ELEVATION (FT AMSL)
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON AUGUST 14, 2017. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-8/14/17

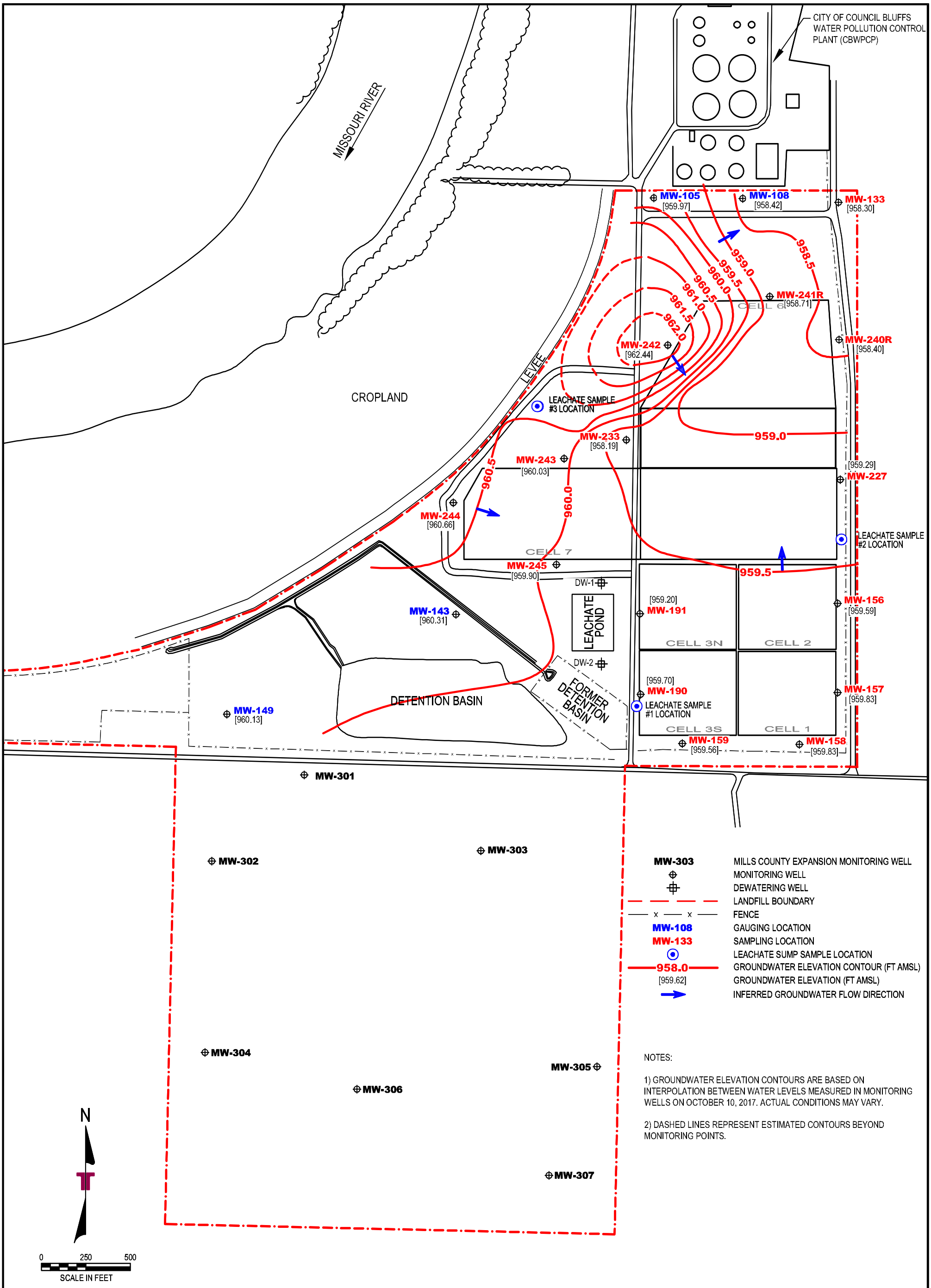
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	10



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 10, 2017. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-10/10/17

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/2/17
JOB NO.	05157640
ACAD NO.	05157640C15
FIGURE NO.:	11

CITY OF COUNCIL BLUFFS WATER POLLUTION CONTROL PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

MW-105 [959.69]

MW-108 [955.98]

MW-133 [957.80]

956.0

956.5

957.0

957.5

MW-241R [958.35]

CELL 6

MW-242 [959.14]

MW-240R [957.52]

958.0

958.5

LEACHATE SAMPLE #3 LOCATION

MW-233 [958.83]

MW-243 [959.61]

[958.23]

MW-227

MW-244 [960.19]

LEACHATE SAMPLE #2 LOCATION

CELL 7

960.0

959.5

MW-245 [959.31]

DW-1

[958.88]

MW-191

MW-156 [958.28]

CELL 3N

CELL 2

MW-143 [959.14]

LEACHATE POND

959.0

DW-2

[958.68]

MW-190

MW-157 [958.28]

LEACHATE SAMPLE #1 LOCATION

FORMER DETENTION BASIN

DETENTION BASIN

CELL 3S

CELL 1

MW-149 [959.45]

MW-159 [958.42]

MW-158 [958.23]

MW-301

MW-302

MW-303

MW-304

MW-305

MW-306

MW-307

MW-303	MILLS COUNTY EXPANSION MONITORING WELL
⊕	MONITORING WELL
⊞	DEWATERING WELL
— — — —	LANDFILL BOUNDARY
— x — x —	FENCE
MW-108	GAUGING LOCATION
MW-133	SAMPLING LOCATION
⊙	LEACHATE SUMP SAMPLE LOCATION
958.0	GROUNDWATER ELEVATION CONTOUR (FT AMSL)
[959.62]	GROUNDWATER ELEVATION (FT AMSL)
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON MAY 1, 2018. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

N

0 250 500

SCALE IN FEET

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-5/1/18

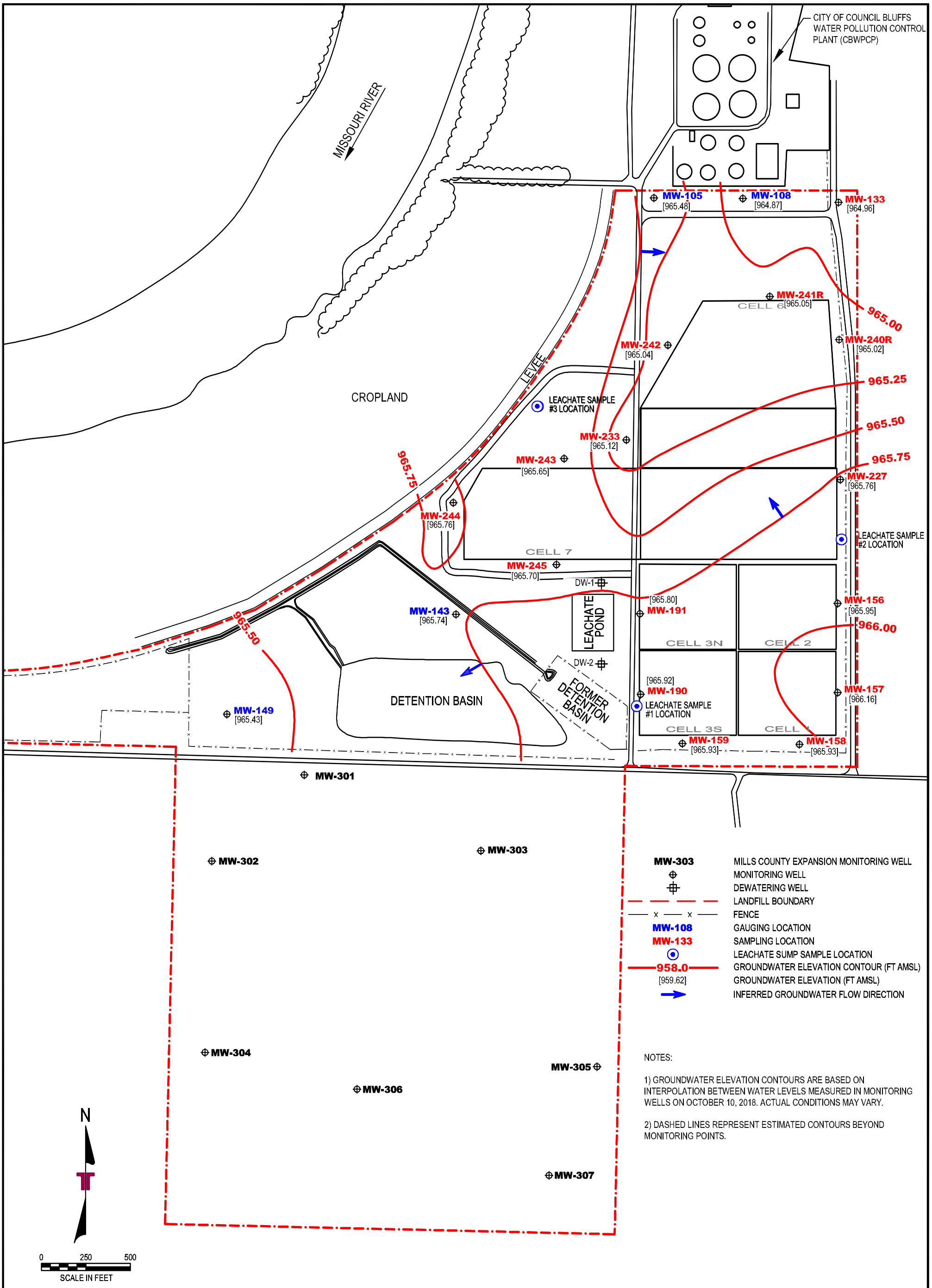
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	5/11/18
JOB NO.	05157640
ACAD NO.	05157640C18
FIGURE NO.:	3



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 10, 2018. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-10/10/18

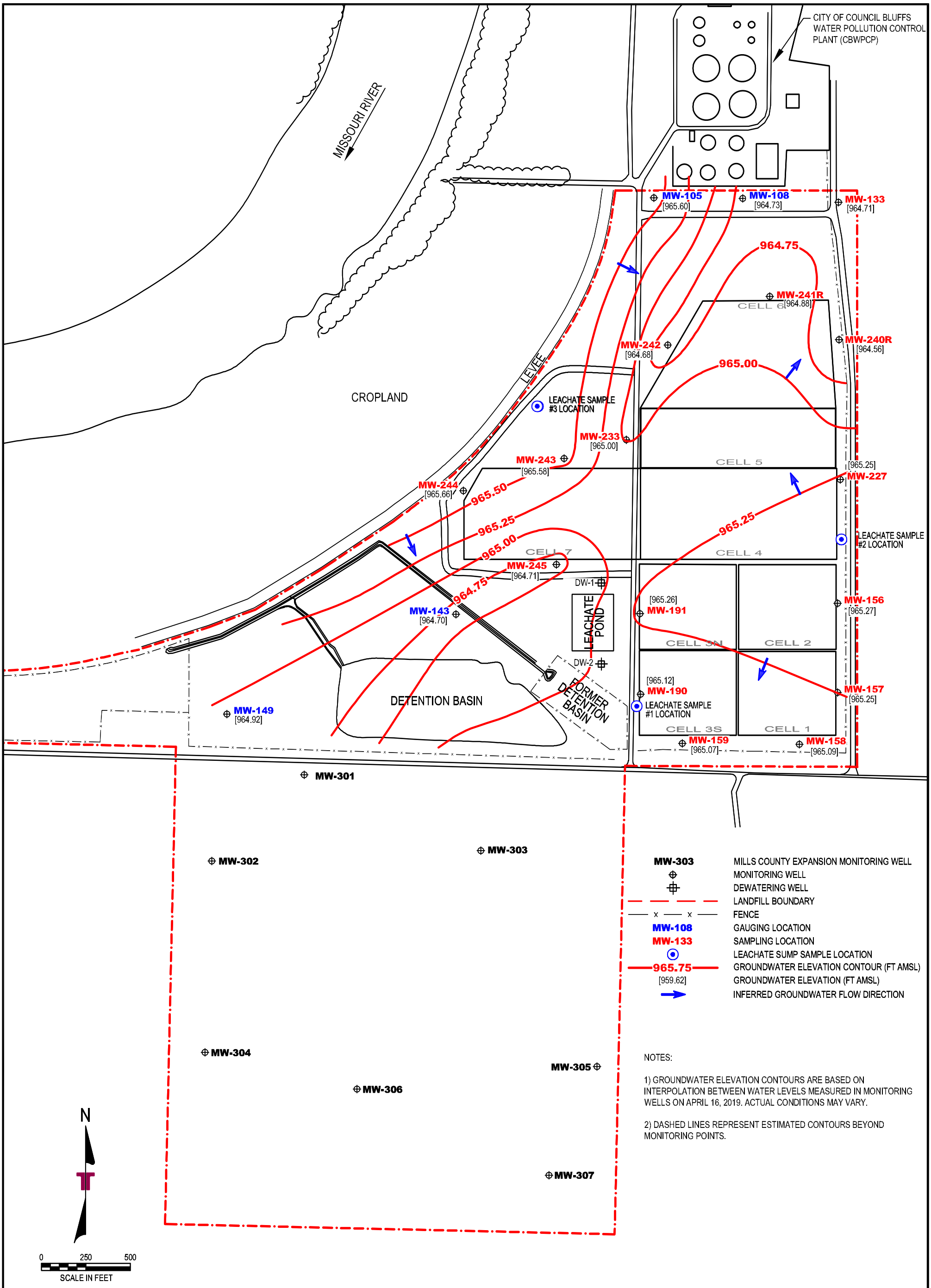
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	10/19/18
JOB NO.	05157640
ACAD NO.	05157640C21
FIGURE NO.:	4



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON APRIL 16, 2019. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-4/16/19

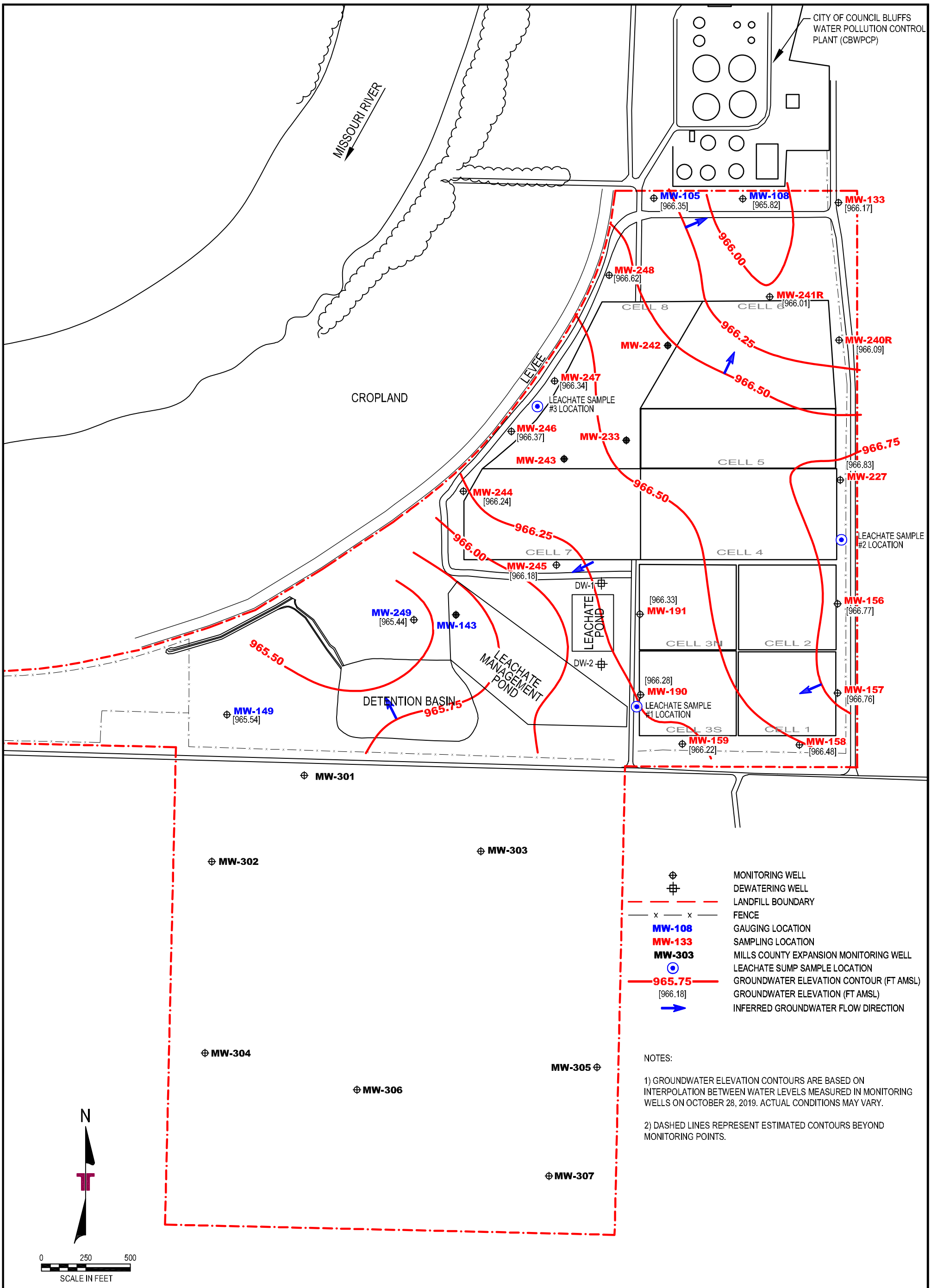
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	5/2/19
JOB NO.	05157640
ACAD NO.	05157640C25
FIGURE NO.:	3



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 28, 2019. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP - 10/28/19

MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/18/19
JOB NO.	05157640
ACAD NO.	05157640C29
FIGURE NO.:	4

CITY OF COUNCIL BLUFFS WATER POLLUTION CONTROL PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

960.75

960.50

961.00

961.25

961.50

MW-105 [960.81]

MW-108 [960.37]

MW-133 [960.95]

MW-248 [961.24]

MW-241R [960.68]

MW-240R [960.72]

MW-242

MW-247 [961.21]

LEACHATE SAMPLE #3 LOCATION

MW-246 [961.06]

MW-233

MW-243

MW-244 [960.93]

CELL 8

CELL 6

CELL 5

CELL 7

CELL 4

[961.49]

MW-227

LEACHATE SAMPLE #2 LOCATION

MW-245 [961.09]

DW-1

LEACHATE POND

DW-2

MW-249 [961.51]

MW-143

LEACHATE MANAGEMENT POND

DETENTION BASIN

[961.30]

MW-191

MW-156 [961.62]

CELL 3N

CELL 2

[961.33]

MW-190

LEACHATE SAMPLE #1 LOCATION

MW-157 [961.62]

CELL 3S

CELL 1

MW-159 [961.37]

MW-158 [961.56]

MW-149 [960.44]

MW-301

MW-302

MW-303

MW-304

MW-305

MW-306

MW-307

N

0 250 500

SCALE IN FEET

⊕	MONITORING WELL
⊞	DEWATERING WELL
— — —	LANDFILL BOUNDARY
— x — x —	FENCE
MW-108	GAUGING LOCATION
MW-133	SAMPLING LOCATION
MW-303	MILLS COUNTY EXPANSION MONITORING WELL
⊙	LEACHATE SUMP SAMPLE LOCATION
965.75	GROUNDWATER ELEVATION CONTOUR (FT AMSL)
[966.18]	GROUNDWATER ELEVATION (FT AMSL)
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON APRIL 20, 2020. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-4/20/20

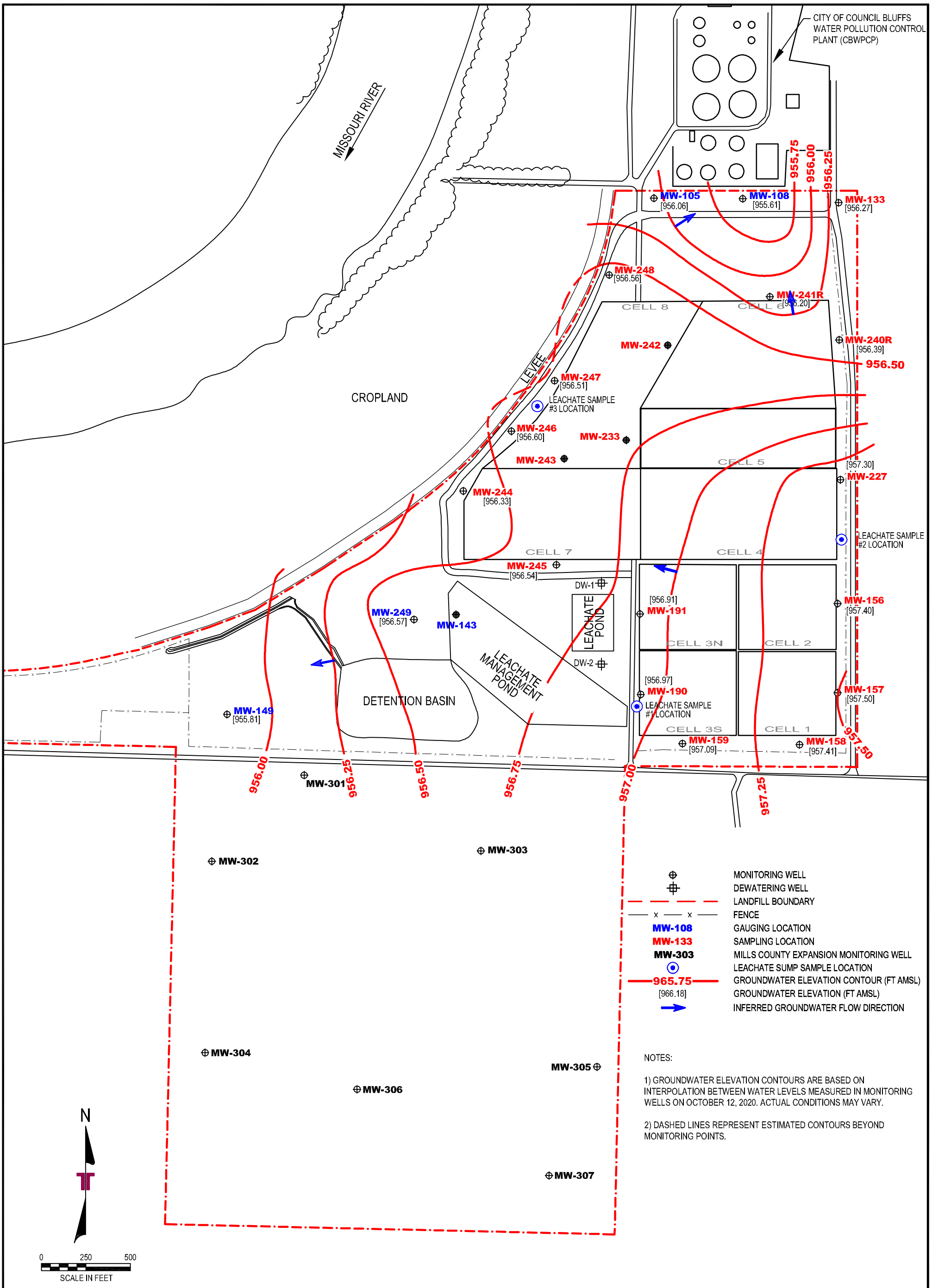
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	5/20/20
JOB NO.	05157640
ACAD NO.	05157640C30
FIGURE NO.:	3



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 12, 2020. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP-10/12/20

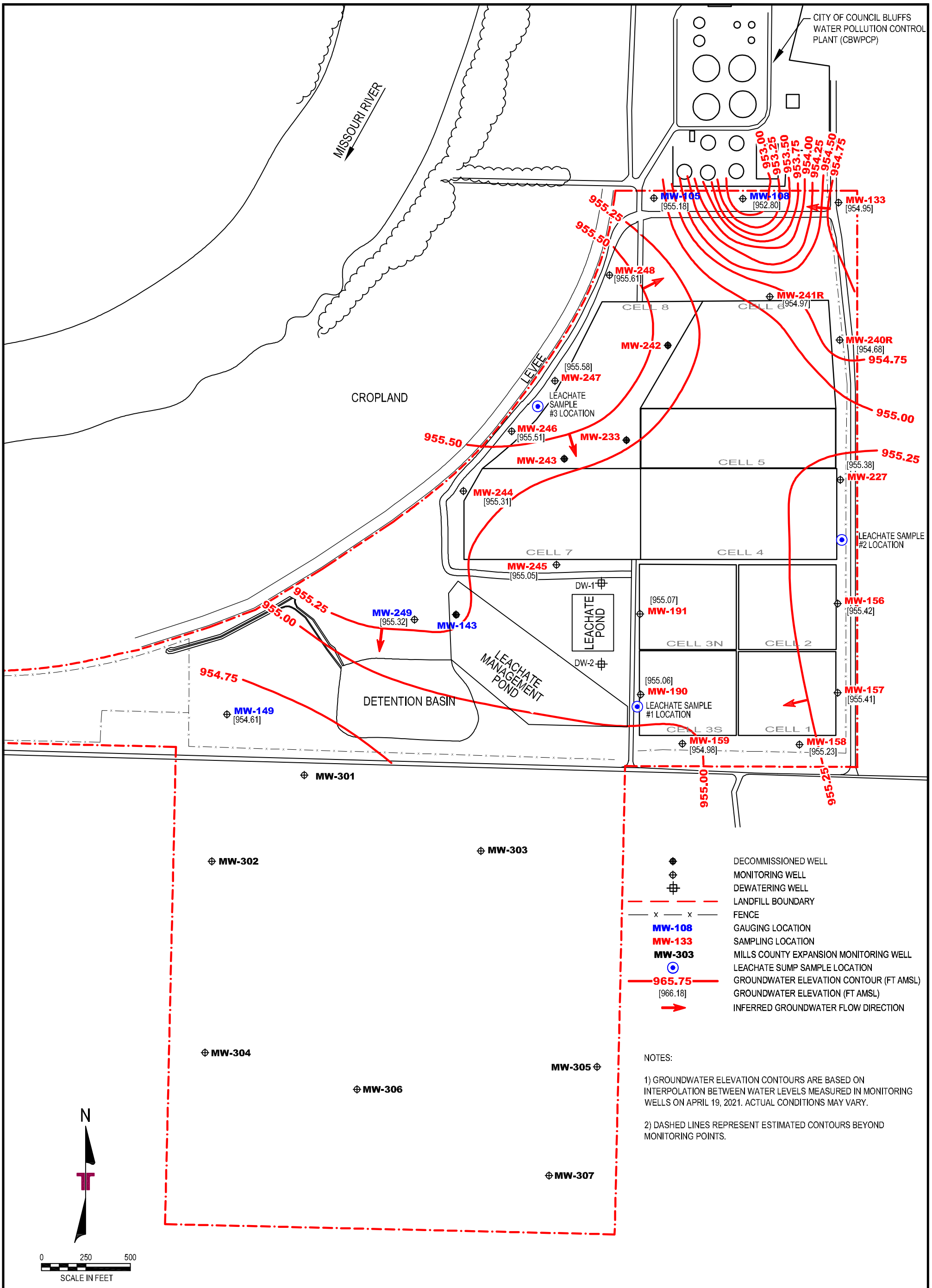
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	11/11/20
JOB NO.	05157640
ACAD NO.	05157640C30
FIGURE NO.:	4



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON APRIL 19, 2021. ACTUAL CONDITIONS MAY VARY.

2) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP- 4/19/21

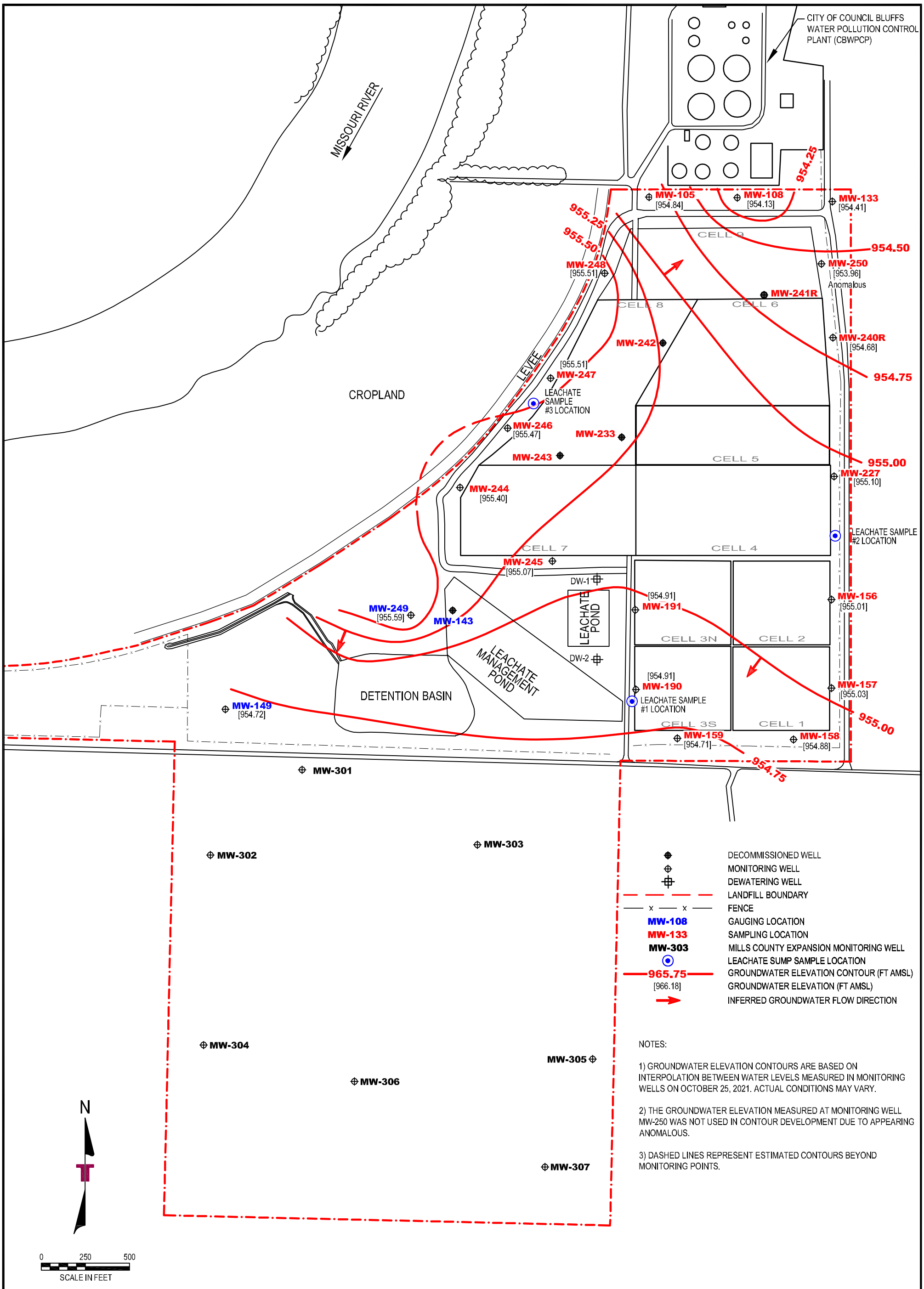
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	10/18/21
JOB NO.	05157640
ACAD NO.	05157640C32
FIGURE NO.:	3



NOTES:

1) GROUNDWATER ELEVATION CONTOURS ARE BASED ON INTERPOLATION BETWEEN WATER LEVELS MEASURED IN MONITORING WELLS ON OCTOBER 25, 2021. ACTUAL CONDITIONS MAY VARY.

2) THE GROUNDWATER ELEVATION MEASURED AT MONITORING WELL MW-250 WAS NOT USED IN CONTOUR DEVELOPMENT DUE TO APPEARING ANOMALOUS.

3) DASHED LINES REPRESENT ESTIMATED CONTOURS BEYOND MONITORING POINTS.

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

GROUNDWATER CONTOUR MAP - 10/25/21

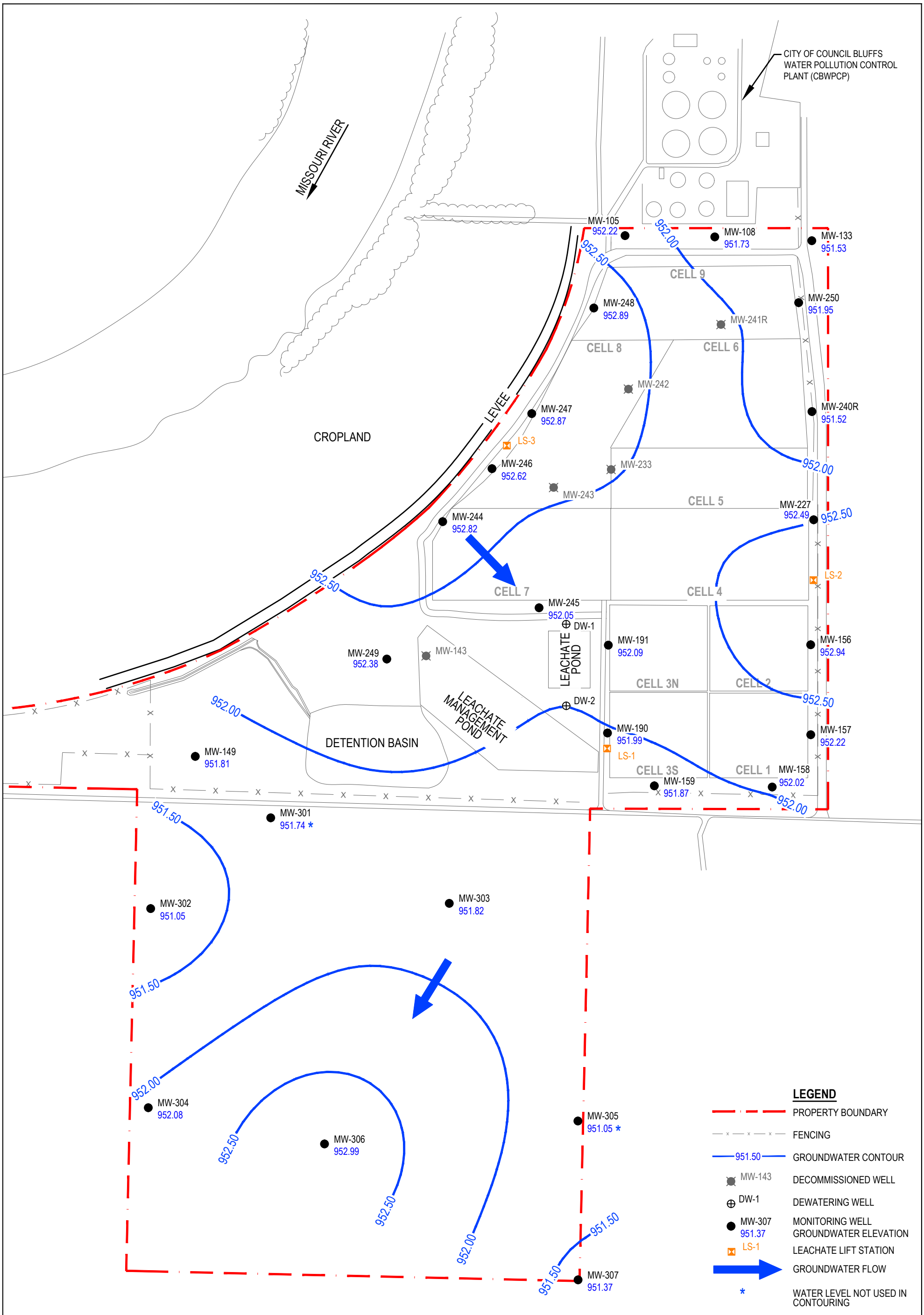
MIDAMERICAN ENERGY COMPANY

WALTER SCOTT JR. ENERGY CENTER

CCR MONOFILL

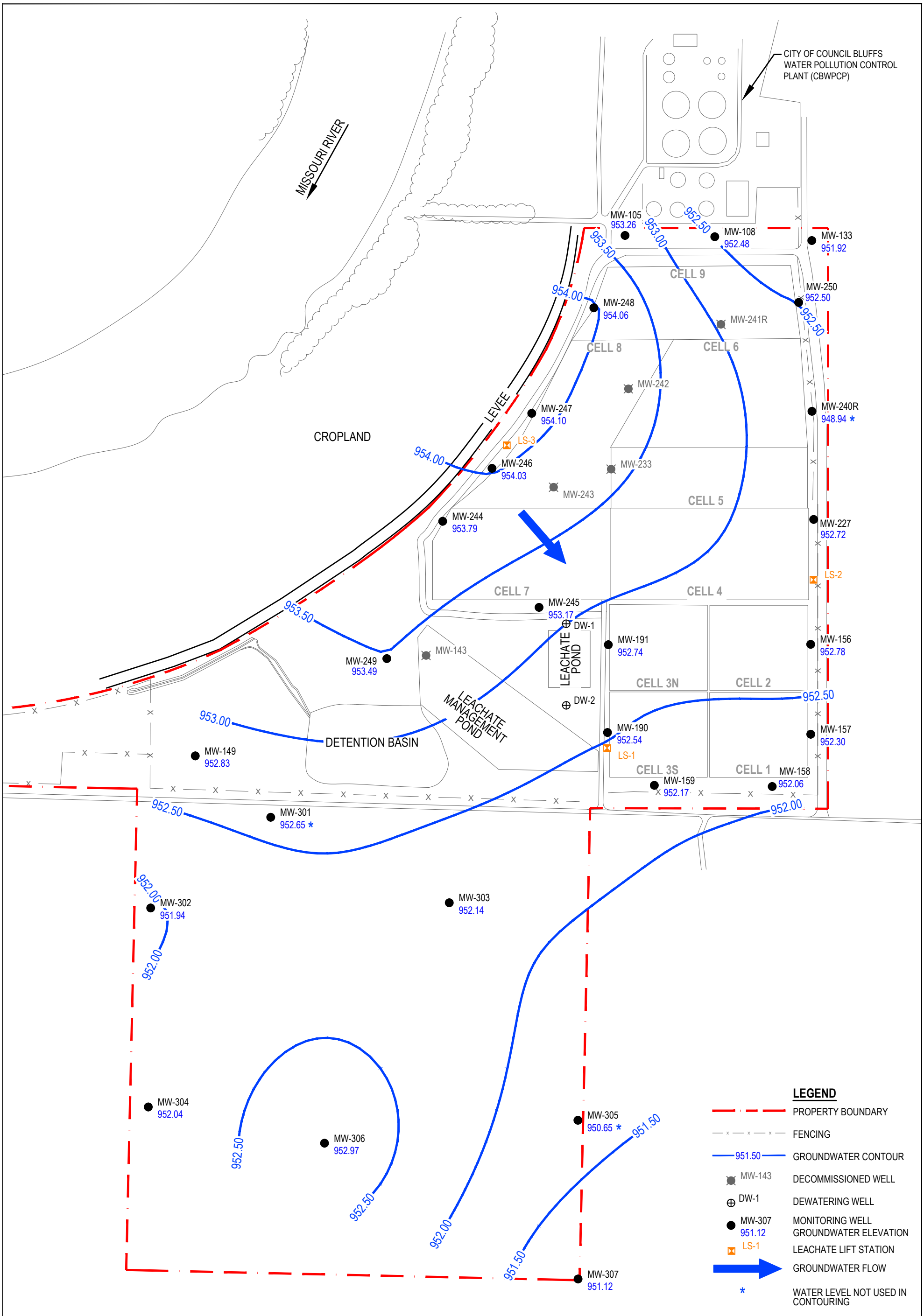
COUNCIL BLUFFS IOWA

DESIGNED BY:	RDW
DRAWN BY:	PAI
APPVD. BY:	MBR
SCALE:	AS SHOWN
DATE:	10/18/21
JOB NO.	05157640
ACAD NO.	05157640C32
FIGURE NO.:	4



Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT001\12592594-GHD-00-00-RPT-EN-D103_GB-001.dwg
Plot Date: 30 November 2022 1:18 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 250 500 ft

1" = 500 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER CONTOUR MAP
OCTOBER 10, 2022

Project No. **12592594**
Date **November 2022**

FIGURE 3.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT001\12592594-GHD-00-00-RPT-EN-D104_GB-001.dwg
Plot Date: 30 November 2022 1:17 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022

MISSOURI RIVER

CITY OF COUNCIL BLUFFS
WATER POLLUTION CONTROL
PLANT (CBWPCP)

CROPLAND

LEVEE

MW-105
949.75

MW-108
949.78

MW-133
950.18

950.00

950.50

CELL 9

MW-248
950.37

MW-250
950.57

MW-241R

CELL 8

CELL 6

MW-242

MW-247
950.21

MW-240R
950.15

LS-3

MW-246
950.21

MW-233

MW-243

CELL 5

MW-227
DRY

MW-244
949.79

LS-2

CELL 7

CELL 4

MW-245
950.26

DW-1

MW-249
DRY

MW-143

LEACHATE POND

MW-191
950.49

MW-156
DRY

CELL 3N

CELL 2

DW-2

LEACHATE MANAGEMENT POND

DETENTION BASIN

MW-190
950.36

MW-157
950.84

LS-1

MW-149
DRY

CELL 3S

CELL 1

MW-159
950.27

MW-158
950.38

MW-301
949.63 *

MW-302
DRY

MW-303
DRY

MW-304
DRY

MW-306
DRY

MW-305
949.28 *

MW-307
DRY

LEGEND

- PROPERTY BOUNDARY
- FENCING
- 950.50 GROUNDWATER CONTOUR
- MW-143 DECOMMISSIONED WELL
- DW-1 DEWATERING WELL
- MW-305 949.28 MONITORING WELL GROUNDWATER ELEVATION
- LS-1 LEACHATE LIFT STATION
- GROUNDWATER FLOW
- * WATER LEVEL NOT USED IN CONTOURING

0 250 500 ft
1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

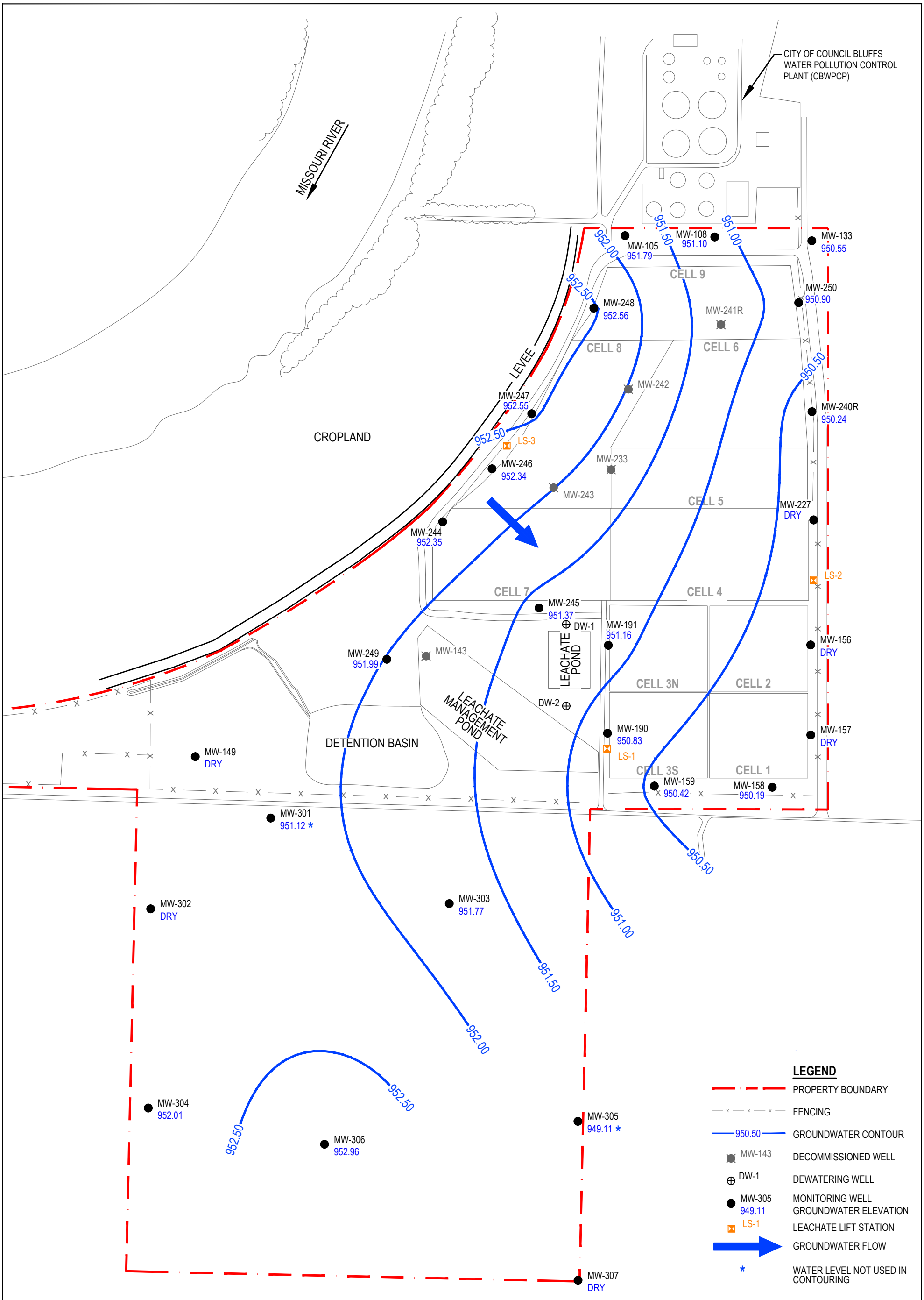
GROUNDWATER FLOW MAP
JANUARY 16, 2023

Project No. **12592594**
Date **August 2023**

FIGURE 3.1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT009\12592594-GHD-00-00-RPT-EN-D101_GB-009.dwg
Plot Date: 11 August 2023 3:57 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 250 500 ft

1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP
APRIL 24, 2023

Project No. **12592594**
Date **August 2023**

FIGURE 3.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT009\12592594-GHD-00-00-RPT-EN-D102_GB-009.dwg
Plot Date: 11 August 2023 3:58 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022

CITY OF COUNCIL BLUFFS
WATER POLLUTION CONTROL
PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

DETENTION BASIN

LEACHATE MANAGEMENT POND

LEACHATE POND

CELL 9
CELL 8
CELL 6
CELL 5
CELL 7
CELL 4
CELL 3N
CELL 2
CELL 3S
CELL 1

MW-105 953.79
MW-108 952.96
MW-133 952.34
MW-248 954.51
MW-241R
MW-250 952.71
MW-247 954.58
MW-242
MW-240R 951.93
LS-3
MW-246 955.08
MW-233
MW-243
MW-244 954.41
MW-227 952.56
LS-2
MW-245 953.59
DW-1
MW-191 952.95
MW-156 DRY
MW-249 954.10
MW-143
DW-2
MW-190 952.64
LS-1
MW-157 951.97
MW-149 953.56
MW-159 952.19
MW-158 951.85
MW-301 953.21 *
MW-303 952.49
MW-302 952.56
MW-304 DRY
MW-306 952.98
MW-305 950.97 *
MW-307 DRY

954.00
954.50
953.50
953.00
952.50
955.00
954.50
954.00
953.50
953.00
952.00
952.00
952.50

LEGEND

- PROPERTY BOUNDARY
- FENCING
- 952.50 GROUNDWATER CONTOUR
- MW-143 DECOMMISSIONED WELL
- DW-1 DEWATERING WELL
- MW-305 950.97 MONITORING WELL GROUNDWATER ELEVATION
- LS-1 LEACHATE LIFT STATION
- GROUNDWATER FLOW
- * WATER LEVEL NOT USED IN CONTOURING

0 250 500 ft
1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP
OCTOBER 2, 2023

Project No. **12592594**
Date **December 2023**

FIGURE 3.3

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT010\12592594-GHD-00-00-RPT-EN-D103.3_GB-010.dwg
Plot Date: 15 December 2023 2:09 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022

CITY OF COUNCIL BLUFFS
WATER POLLUTION CONTROL
PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

DETENTION BASIN

LEACHATE MANAGEMENT POND

LEACHATE POND

CELL 9
CELL 8
CELL 6
CELL 5
CELL 7
CELL 4
CELL 3N
CELL 2
CELL 3S
CELL 1

MW-105 953.74
MW-108 953.21
MW-133 952.90
MW-248 954.30
MW-250 953.15
MW-241R
MW-242
MW-247 954.00
MW-240R 952.35
LS-3
MW-246 *
MW-233
MW-243
MW-244 953.93
MW-227 *
LS-2
MW-245 953.59
DW-1
MW-191 *
MW-156 *
MW-249 *
MW-143
DW-2
MW-190 *
MW-157 *
LS-1
MW-159 952.45
MW-158 *
MW-149 *
MW-301 *
MW-302 *
MW-303 *
MW-304 *
MW-305 *
MW-306 *
MW-307 *

954.00
953.50
953.00
952.50

0 250 500 ft
1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP
NOVEMBER 29, 2023

Project No. **12592594**
Date **January 2024**

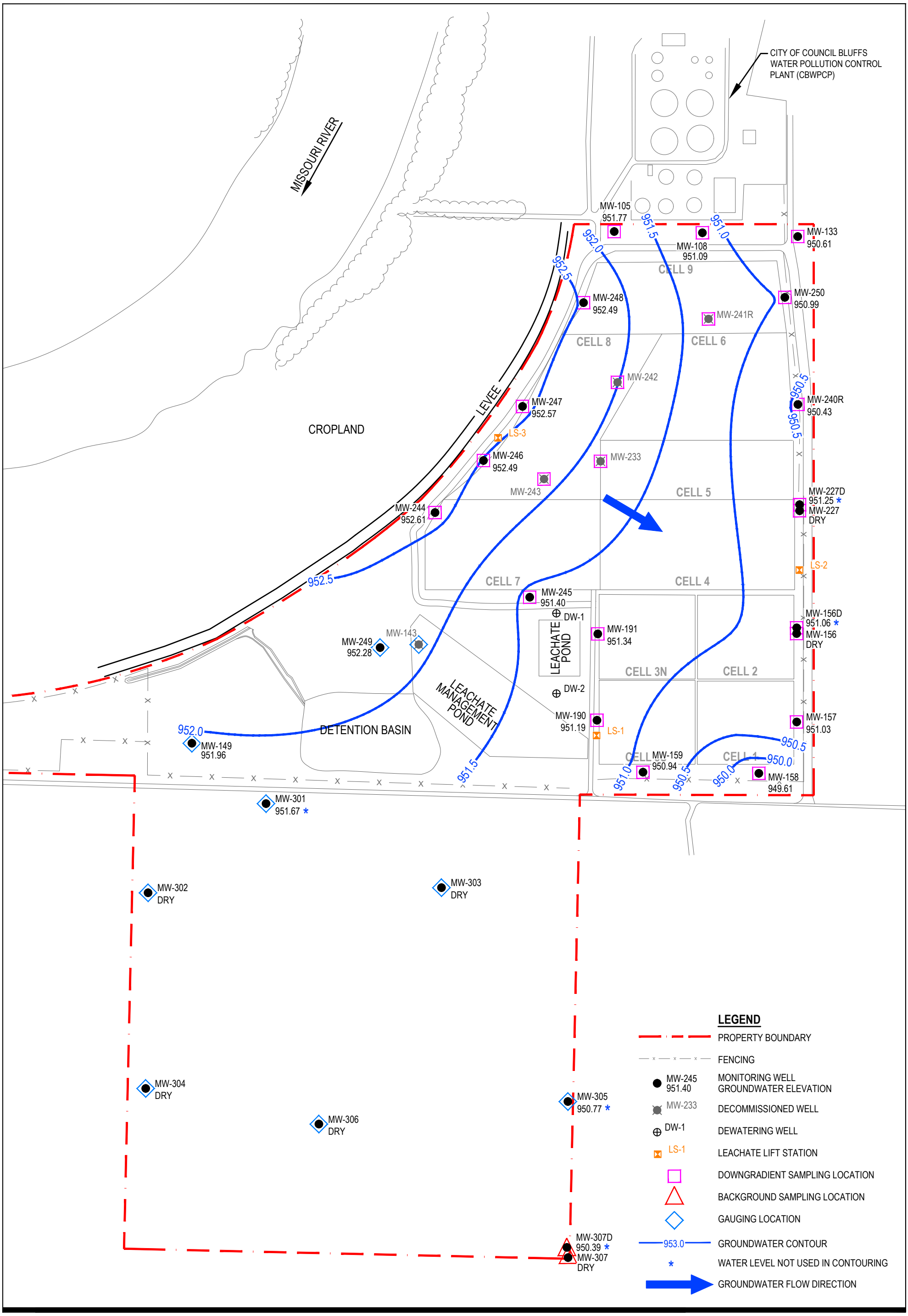
FIGURE 3.4

LEGEND

- PROPERTY BOUNDARY
- FENCING
- 952.50 GROUNDWATER CONTOUR
- MW-143 DECOMMISSIONED WELL
- DW-1 DEWATERING WELL
- MW-105 953.74 MONITORING WELL GROUNDWATER ELEVATION
- LS-1 LEACHATE LIFT STATION
- GROUNDWATER FLOW
- * WATER LEVEL NOT USED IN CONTOURING

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT010\12592594-GHD-00-00-RPT-EN-D103.4_GB-010.dwg
Plot Date: 19 January 2024 1:21 PM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 250 500 ft

1" = 500 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

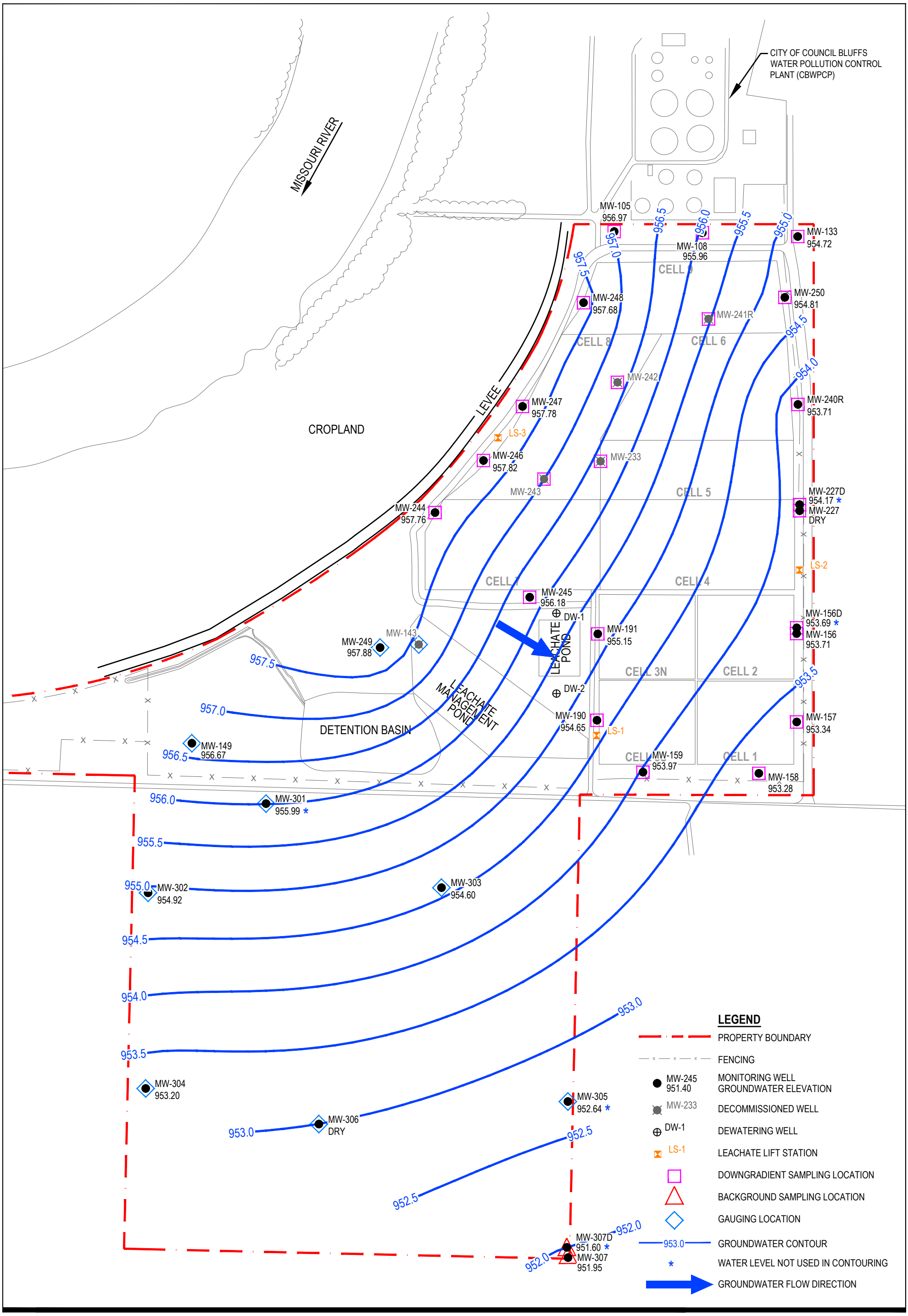
GROUNDWATER FLOW MAP
APRIL 1, 2024

Project No. **12592594**
Date **May 2024**

FIGURE 3.1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\PRES001\12592594-GHD-00-00-PRE-EN-D103.1_GB-001.dwg
Plot Date: 21 May 2024 10:43 AM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 250 500 ft

1" = 500 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP JUNE 3, 2024

Project No. **12592594**
Date **January 2025**

FIGURE 3.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\PRE002\12592594-GHD-00-00-PRE-EN-D101_WA-002.dwg
Plot Date: 08 January 2025 11:51 AM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022

CITY OF COUNCIL BLUFFS
WATER POLLUTION CONTROL
PLANT (CBWPCP)

MISSOURI RIVER

CROPLAND

LEVEE

MW-105
956.20

MW-108
955.84

MW-133
955.76

956.0

956.5

CELL 9

MW-248
956.84

MW-250
956.29

MW-241R

CELL 8

CELL 6

MW-242

MW-247
956.90

MW-240R
955.83

LS-3

MW-246
956.88

MW-243

MW-233

CELL 5

MW-227D *
956.77

MW-227
956.64

MW-244
956.65

LS-2

CELL 7

CELL 4

MW-245
956.61

DW-1

MW-156D *
956.65

MW-156
956.68

MW-249
956.77

MW-143

LEACHATE POND

MW-191
956.56

CELL 3N

CELL 2

DW-2

LEACHATE MANAGEMENT POND

DETENTION BASIN

MW-190
956.50

LS-1

MW-157
956.74

MW-149
956.01

CELL 3S

CELL 1

MW-159
956.36

MW-158
956.45

MW-301 *
956.17

MW-302

MW-303

MW-304

MW-305 *
955.90

MW-306

MW-307D *
955.44

MW-307
955.80

LEGEND

- PROPERTY BOUNDARY
- FENCING
- MW-245 956.61 — MONITORING WELL ID GROUNDWATER ELEVATION
- MW-233 — DECOMMISSIONED WELL
- DW-1 — DEWATERING WELL
- LS-1 — LEACHATE LIFT STATION
- 955.85 — GROUNDWATER CONTOUR
- * — WATER LEVEL NOT USED IN CONTOURING
- GROUNDWATER FLOW DIRECTION
- DOWNGRADIENT SAMPLING LOCATION
- BACKGROUND SAMPLING LOCATION
- GAUGING LOCATION

0 250 500 ft
1" = 500 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

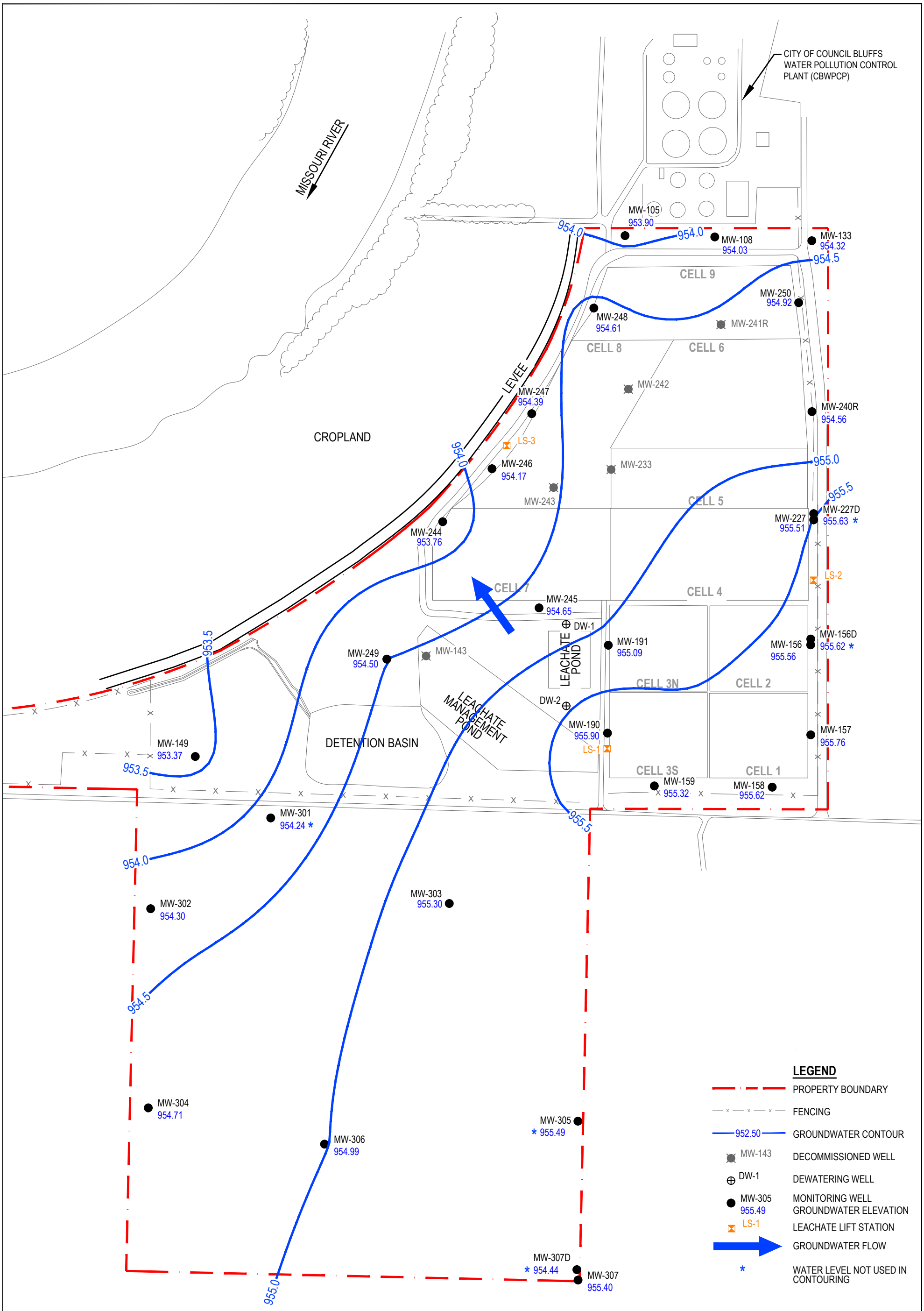
GROUNDWATER FLOW MAP
SEPTEMBER 30, 2024

Project No. **12592594**
Date **January 2025**

FIGURE 3.3

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT022\12592594-GHD-00-00-RPT-EN-D101_DE-022.dwg
Plot Date: 08 January 2025 11:38 AM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 250 500 ft

1" = 500 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

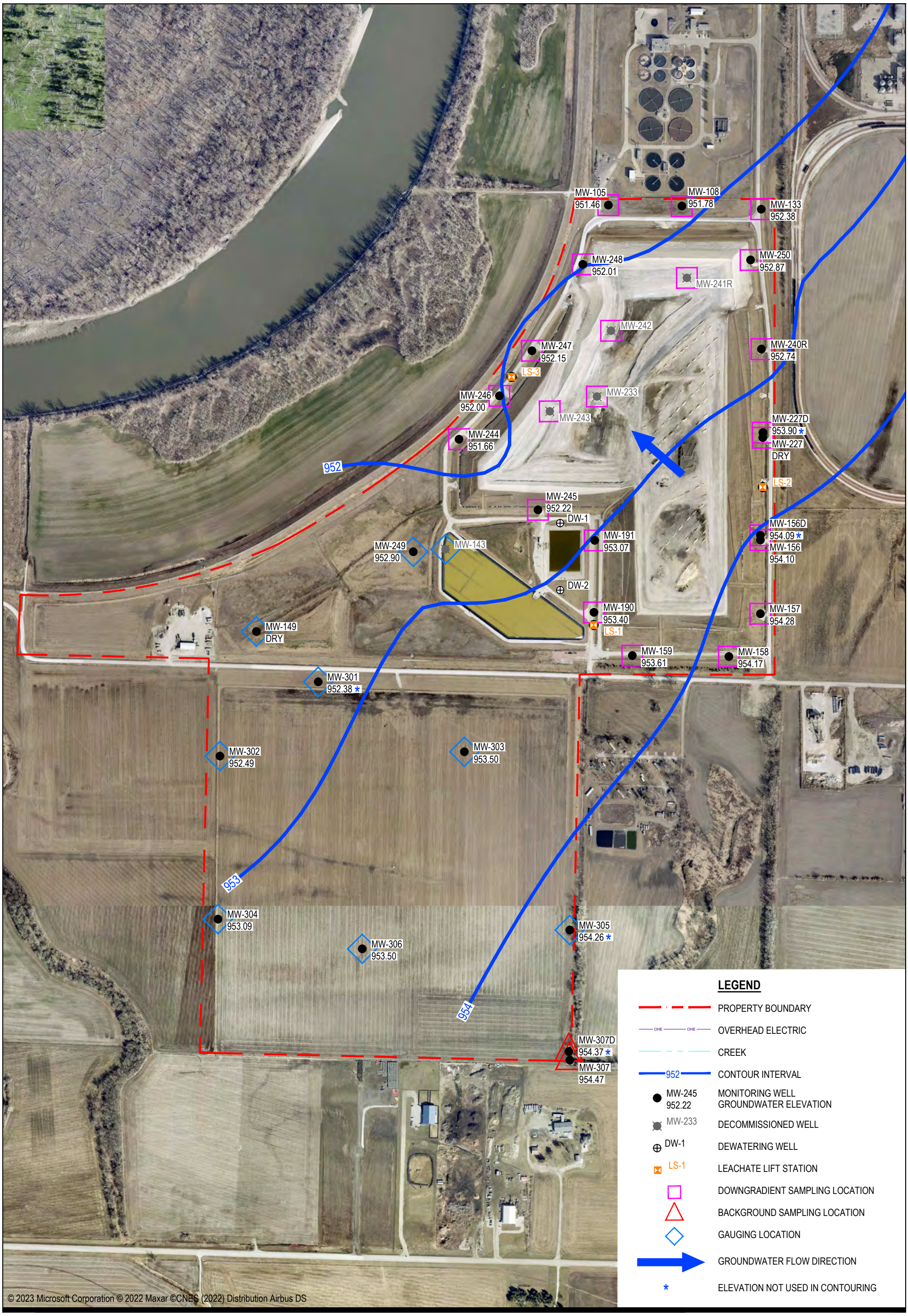
GROUNDWATER FLOW MAP
DECEMBER 10, 2024

Project No. **12592594**
Date **January 2025**

FIGURE 3.4

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT022\12592594-GHD-00-00-RPT-EN-D103.4_GB-022.dwg
Plot Date: 08 January 2025 11:34 AM

Data Source: 05157640C32 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

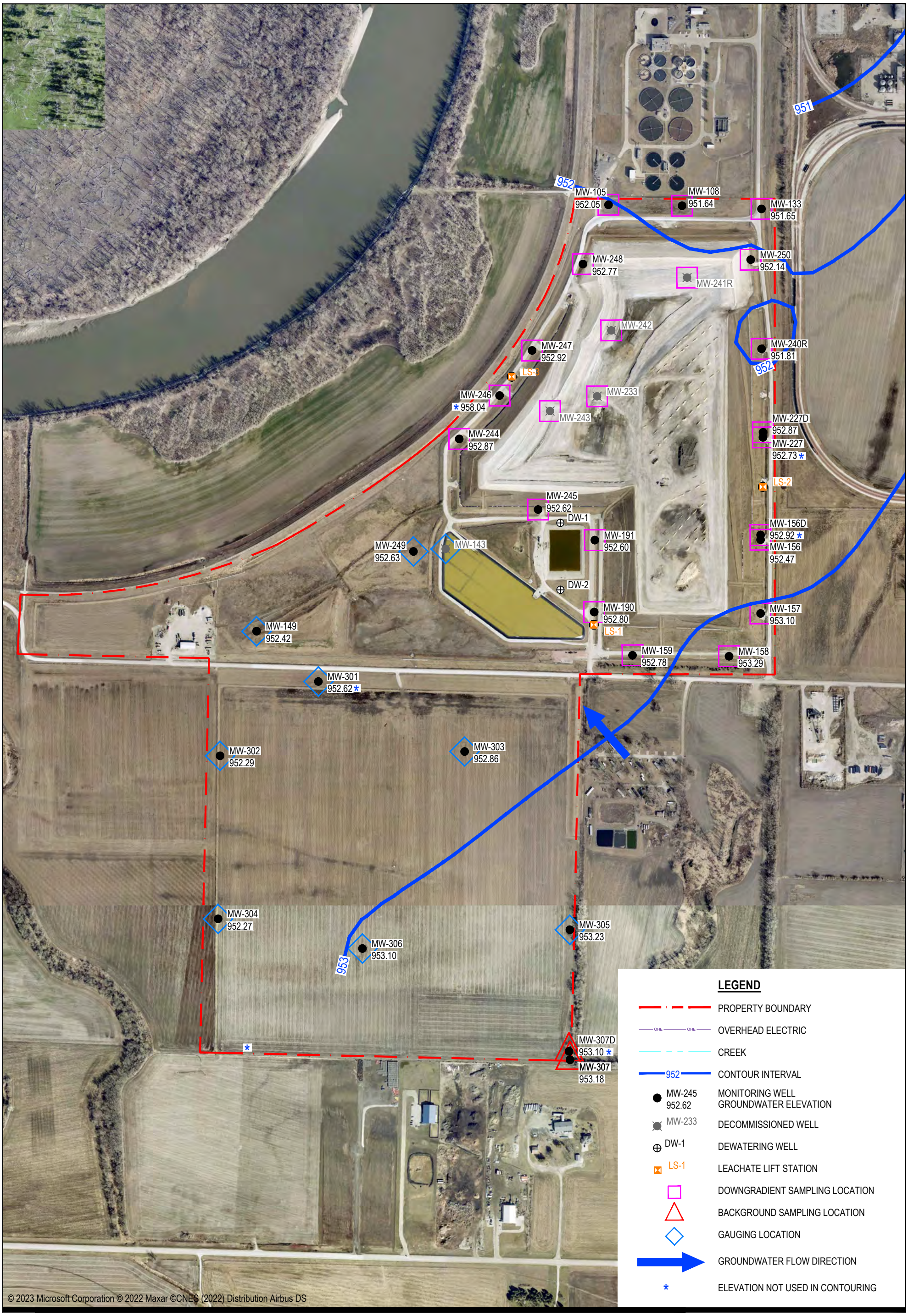
GROUNDWATER FLOW MAP
JANUARY 22, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.1

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.1_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

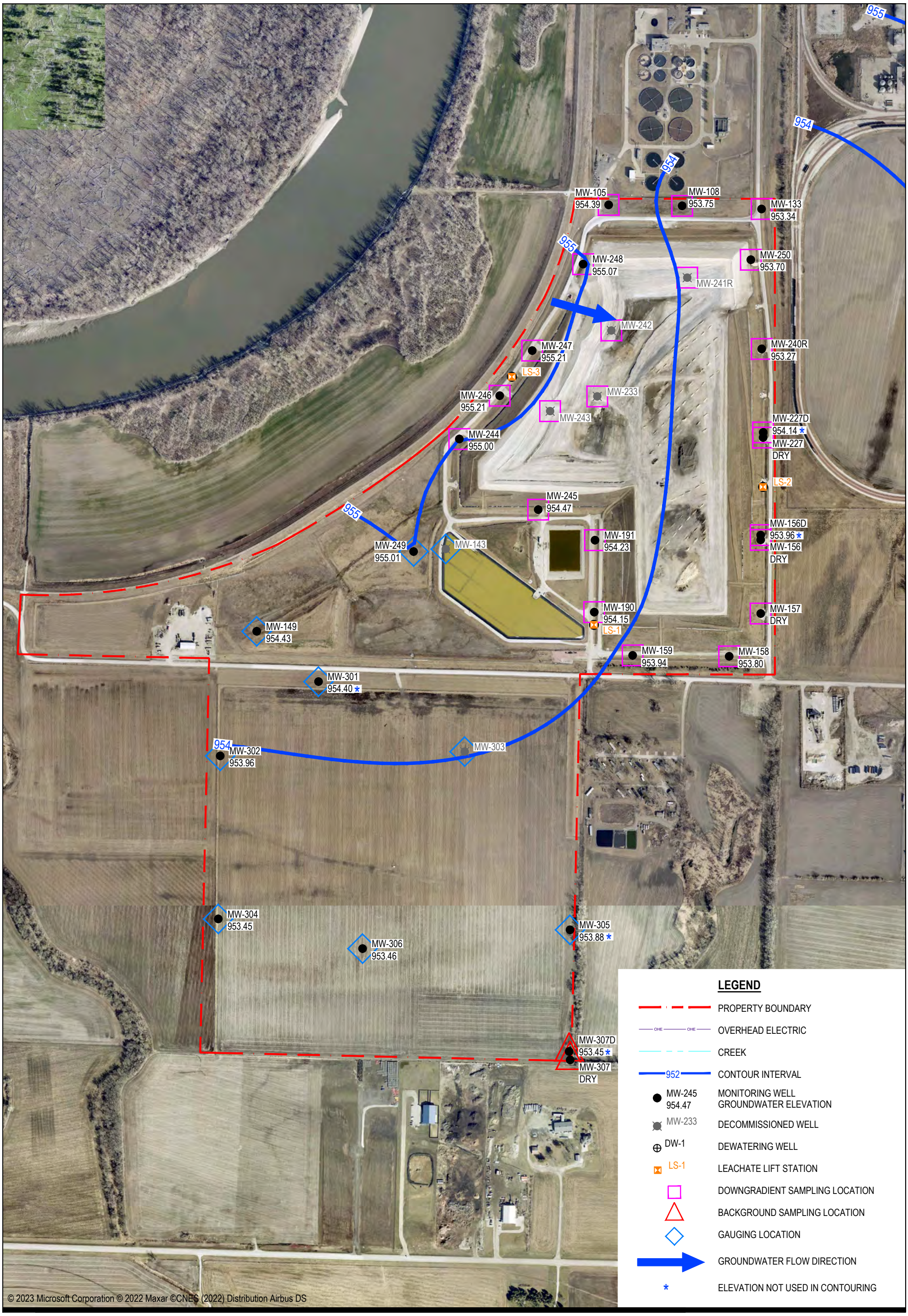
GROUNDWATER FLOW MAP
MARCH 31, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.2

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.2_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

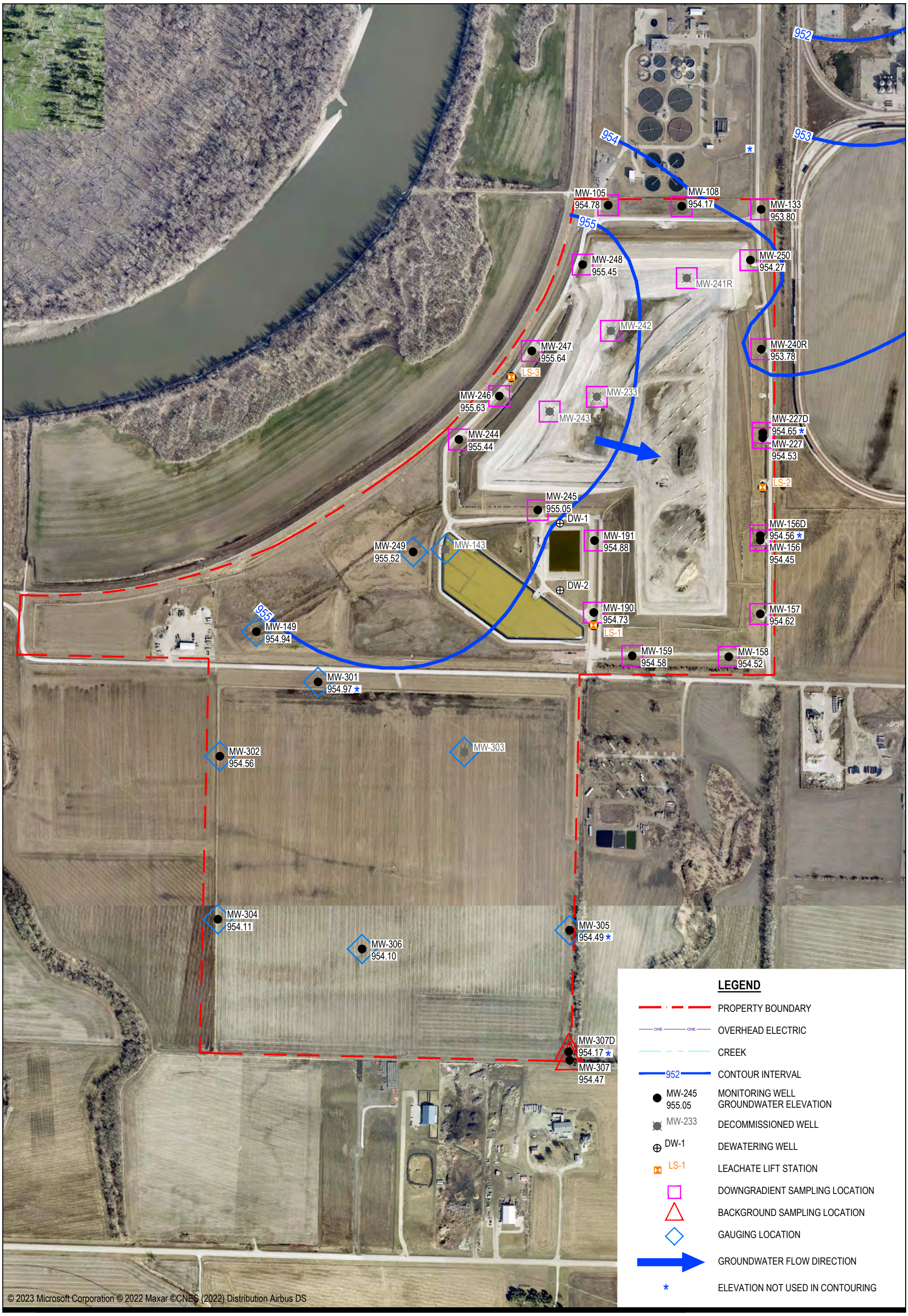
GROUNDWATER FLOW MAP
JUNE 11, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.3

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.3_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

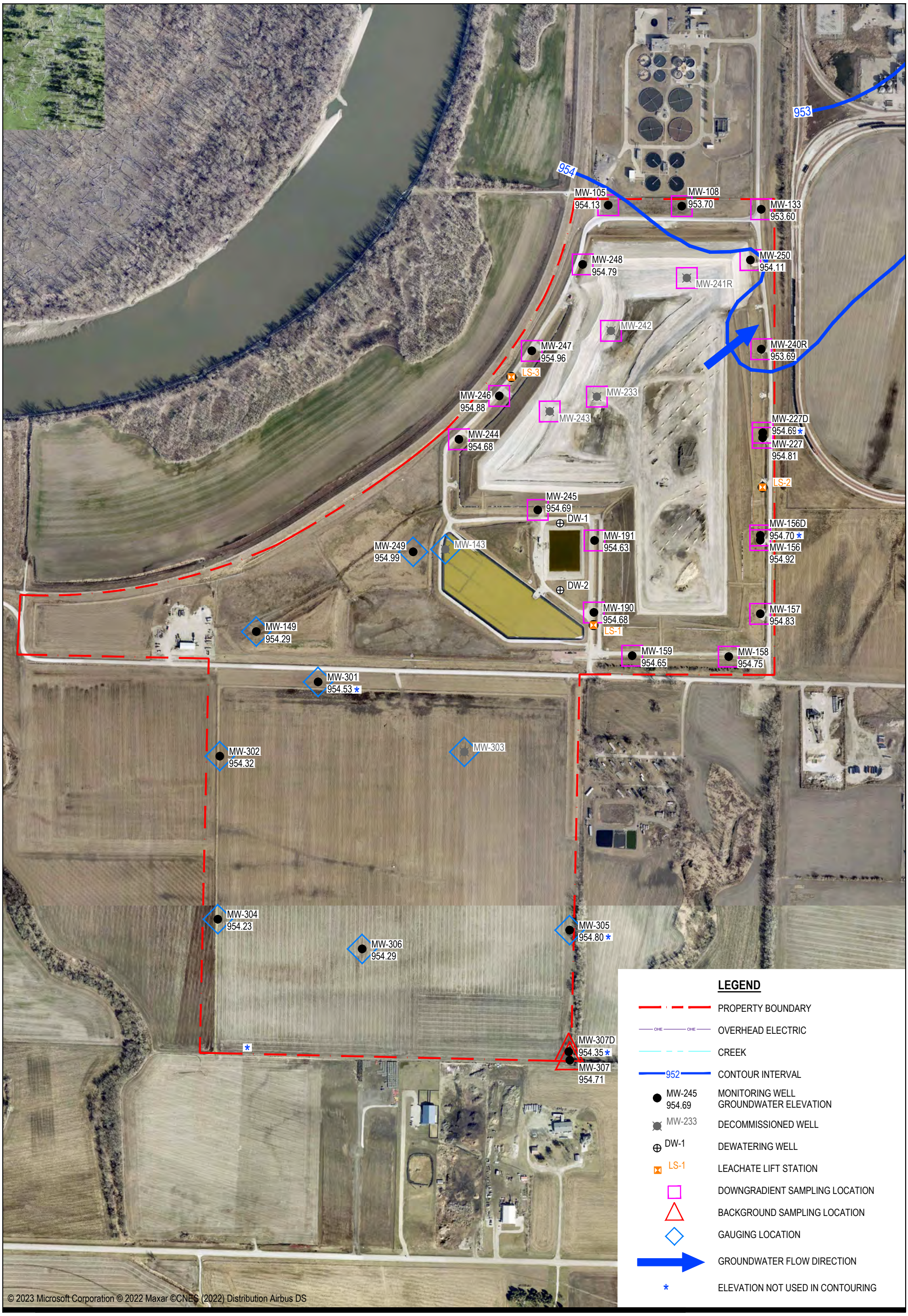
GROUNDWATER FLOW MAP
JULY 24, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.4

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.4_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System: IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

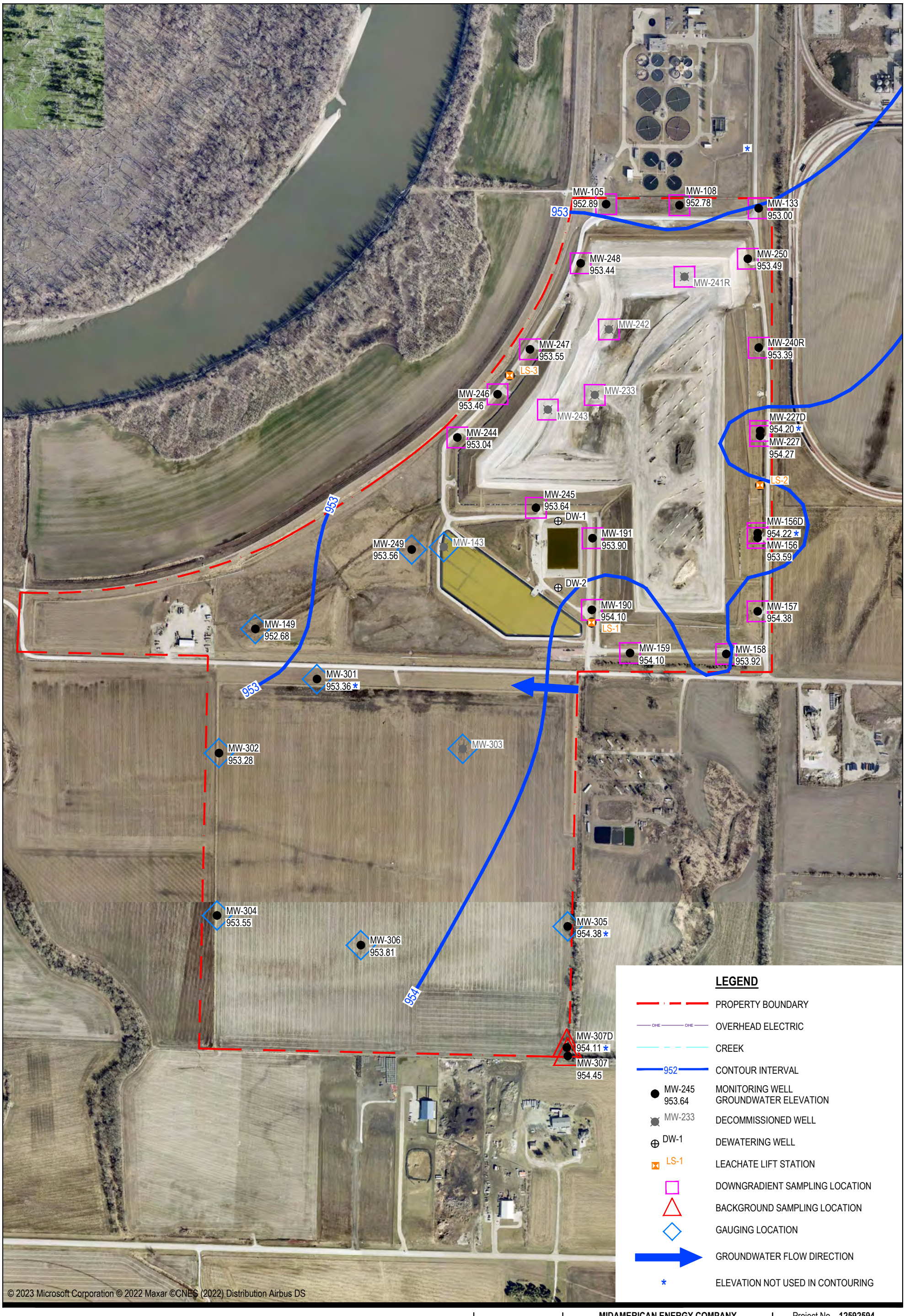
GROUNDWATER FLOW MAP
SEPTEMBER 29, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.5

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.5_GB-028.dwg
Plot Date: 21 January 2026 8:22 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022



0 300 600 ft

1" = 600 ft

Coordinate System:
IA83-SF

N

GHD

MIDAMERICAN ENERGY COMPANY
WALTER SCOTT JR. ENERGY CENTER
CCR MONOFILL
COUNCIL BLUFFS, IOWA

GROUNDWATER FLOW MAP
DECEMBER 8, 2025

Project No. **12592594**
Date **January 2026**

FIGURE 3.6

Filename: N:\US\Des Moines\Projects\563\12592594\Digital_Design\ACAD\Figures\RPT028\12592594-GHD-00-00-CI-EN-D103.6_GB-028.dwg
Plot Date: 21 January 2026 8:21 AM

Data Source: 05157640T5C08 Terracon Consulting Engineers and Scientists, Rec'd 10/2022