SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	Anderson Ex Co.,CY25 Env Comp,CB,IA 27225172.01	DATE:	12/30/2025
SUBJECT:	Anderson Excavating C&D Landfill - 78-SDP-04-89C - 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report	TRANSMITTAL ID:	00005
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
Sean Marczewski West Des Moines, IA	SCS Engineers	SMarczewski@scsengineers.com	+1-515-631-6152

TO

NAME	COMPANY	EMAIL	PHONE
brian.rath@dnr.iowa.gov		brian.rath@dnr.iowa.gov	

REMARKS:

Brian -

Please find for download the Anderson Excavating C&D Landfill 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report. Please let us know if you have any questions or comments.

Sean A. Marczewski
Senior Project Professional
SCS Engineers
1690 All-State Court, Suite 100
West Des Moines, Iowa 50265
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DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	12/30/2025	Anderson Excavating C&D Landfill - 78-SDP-04-89C - 2025 AWQR.LCSPER.MMR 12.30.2025.pdf	

COPIES:

Transmittal

DATE: 12/30/2025
TRANSMITTAL ID: 00005

Becky Jolly	
Virginia Anderson	(Anderson Excavating Company)
Tim Buelow	(SCS Engineers)
Sean Marczewski	(SCS Engineers)

December 30, 2025
File No. 27225172.01

Mr. Brian Rath
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Anderson Excavating Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Dear Brian:

SCS Engineers has completed the Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report for the Anderson Excavating Council Bluffs C&D Landfill for the year 2025. Our services were performed in general accordance with Iowa Administrative Code (IAC) 567-114 and the closure permit. Please find enclosed a copy of the 2025 Annual Water Quality Report, 2025 Leachate Control System Performance Evaluation Report, and 2025 Landfill Gas Annual Report for the Anderson Excavating Council Bluffs C&D Landfill.

If you have any questions regarding these reports, please contact Sean Marczewski at (712) 661-9682.

Sincerely,

Sean Marczewski
Senior Project Professional
SCS Engineers

Timothy C. Buelow, P.E.
Senior Project Advisor
SCS Engineers

SAM/TCB

Copies: Ms. Virginia Anderson, Anderson Excavating Company

2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, & Landfill Gas Annual Report

Anderson Excavating C&D Landfill
Council Bluffs, Iowa
Solid Waste Permit Number: 78-SDP-04-89C

Prepared for:

Anderson Excavating Company

SCS ENGINEERS

27225172.01 | December 30, 2025

1690 All-State Court, Suite 100
West Des Moines, IA 50265
515-631-6160

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CERTIFICATION

Prepared by: Sean Marczewski Date: 12/30/2025

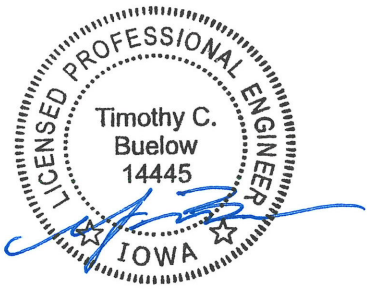
Typed: Sean Marczewski

Reviewed by: [signature] Date: 12-30-2025

Typed: Timothy C. Buelow, P.E.

Certification page (114.26(8)"d")

An annual report summarizing the effect of the facility on groundwater and surface water quality shall be submitted to the department each year. The annual report is to be prepared by or under the direction of an engineer registered in the state of Iowa.



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.

[signature] Date: 12/30/2025

Timothy C. Buelow, P.E.

License No. 14445

My license renewal date is December 31, 2027.

Pages or sheets covered by this seal:

All except Appendix B-1.

EXECUTIVE SUMMARY

ES.1 Period of Report Coverage

SCS Engineers (SCS), on behalf of Anderson Excavating Company, has completed the required groundwater sampling of the closed Council Bluffs Construction and Demolition (C&D) Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results since the 2024 AWQR up to and including the October 2025 semi-annual sampling event. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-114, the closure permit, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

ES.2 Report Priority

The following summarizes report priorities associated with groundwater compliance at the Landfill:

- Department review urgency: None.
- Department review impact on rules schedule: None
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 Site Status and Applicable Rules

- Landfill Status: Closed.
- Types of waste accepted: Formerly C&D.
- Applicable IAC rules: IAC 567-114.

ES.4 Comments

The following summarizes points of special emphasis:

Groundwater samples were not collected from upgradient monitoring well MW-3 during this reporting period. Monitoring well MW-3 contained insufficient water to sample in April 2025 and had an apparent blockage at depth but above where groundwater might have been in October 2025.

There were no new and two ongoing well/detected constituent pairs with control limit exceedances during this reporting period as summarized in **Table 7**.

Review of the Mann-Kendall trending statistics indicated that approximately 69% of the Mann-Kendall statistics were considered stable or decreasing during the 2025 statistical evaluation.

ACRONYMS/ABBREVIATIONS

AWQR = Annual Water Quality Report

C&D = Construction & Demolition

GWPS = Groundwater Protection Standard

HMSP = Hydrologic Monitoring System Plan

IAC = Iowa Administrative Code

MW = Monitoring Well

QA = Quality Assurance

QC = Quality Control

SCS = SCS Engineers

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Council Bluffs C&D Landfill (Landfill) property is depicted on Figure 1, Approved Monitoring Network. The Landfill is located at 2520 Kanesville Boulevard, approximately 1.7 miles west of Interstate 80 in Pottawattamie County, Iowa. The legal description is Part of Lot 5, Auditors Subdivision, NE ¼, SW ¼, and parts of NE ¼, NW ¼, and SE ¼, NW ¼, and Parts of Lots 1 and 2 Prosperity Acres SW ¼, NW ¼, all located in Section 20, T75N, R43W, Pottawattamie County, Iowa.

1.2 FACILITY

The Landfill is located within a mining pit that was abandoned in the 1950s after a failed attempt to obtain sand and gravel. The Landfill has been a permitted facility since 1989. The Landfill property covers approximately 80 acres of which approximately 1.9 acres were used for C&D waste disposal. The closure permit was issued April 11, 2016.

1.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

The 1995 Hydrogeological Investigation Report for Anderson Excavating and Wrecking Company Construction and Demolition Landfill, prepared by Howard R. Green Company Consulting Engineers (Doc #35471), provided the following geological description:

> *The landfill is located in the "Western Loess Hills," which is characterized by thick wind deposited soil (loess) overlying glacial deposits. The unconsolidated sediments at the site consist of up to 200 feet of Pleistocene sediments, primarily clayey silt to silty clay (loess), showing increasing sand and clay content with depth. The thick loess section has been removed over the central portion of the site during a past failed attempt to locate gravel deposits. The Pennsylvanian bedrock beneath the site consists primarily of limestone and shale with thin coal seams. The elevation of the bedrock ranges from 994.2 to 1002.59 feet, amsl.*

According to the above-referenced 1995 Hydrogeological Investigation Report:

> *The uppermost aquifer beneath the site is the water table, which is located within the loess section. The water table elevation ranges from 1086.48 feet on the north side of the site to 1071.32 feet in the southeast corner of the site. Based on in-situ permeability tests, K-values of this loess unit range from 7.2 x 10^{-6} to 3.1 x 10^{-7} cm/sec, while transmissivity values range from 0.106 to 0.398 square feet per day.*
>
> *The water table flow direction is primarily toward the southeast and Mosquito Creek. The primary flow direction of the lower screened interval is toward the southwest.*
>
> *Horizontal flow gradients were found to vary from 0.010 to 0.053 in the water table aquifer and from 0.019 to 0.065 in the lower screened interval. The vertical flow gradients between the water table and the basal sand unit are downward (recharge condition) and varied from 0.027 to 0.251.*

The horizontal flow velocity at the water table varied from 8.0 x 10^{-3} to 9.4 x 10^{-4} ft/day. The horizontal flow velocity in the basal sand unit varied from 9.6 x 10^{-1} to 8.6 x 10^{-6} ft/day. The recharge flux rate between the water table and the basal sand unit varied from 0.0004 ft^3/day per sq. ft. to 0.0024 ft^3/day per sq. ft.

2.0 FIGURES DISCUSSION

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrologic monitoring system plan (HMSP) network are depicted in **Figure 1**. **Figure 1** indicates the locations of each monitoring well and its respective monitoring program.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured during the April 2025 sampling event is included as **Figure 2**. **Figure 2** indicates a generally southeasterly groundwater flow direction.

3.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Landfill follows similar protocols as included in the HMSP. Data validation procedures were performed on analytical results for laboratory quality control samples, and a quality assurance assessment of the data was conducted as the data were generated. The QA review procedure provided documentation of the accuracy and precision of the analytical data and confirmed that the analyses were sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasible with the laboratory method utilized. SCS then conducted QA/QC data validation of the produced data, which included review of sample handling, analytical sensitivity, and blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation can be found in **Appendices B-1**, Laboratory Data, and **B-2**, Data Validation, respectively. The QA/QC review indicated that the data was acceptable.

4.0 ANALYTICAL DATA EVALUATION

Statistical analyses in accordance with the requirements of IAC 567-114 were conducted for the groundwater analytical data collected during the April and October 2025 semi-annual sampling events. The statistical evaluations for samples collected during the 2025 sampling events are located in **Appendix D**.

4.1 DATA EVALUATION

The downgradient monitoring wells for the Landfill include one monitoring well along the southeast side and two monitoring wells along the east side. Upgradient monitoring well MW-3 is located to the northwest of the Landfill.

Chloride and Chemical Oxygen Demand in monitoring well MW-12 exceeded the upper control limits during the 2025 reporting period as shown in **Table 1.** A summary of current and historical control limit and action level exceedances are shown in **Table 9**. Time series graphs of the recent and

historical data and the control limit evaluations for the 2025 sampling events can be found in Appendix D.

As a generalization, water quality in monitoring well MW-2R appears to be similar to background, with the exception of specific conductance. Parameter concentrations in monitoring wells MW-12 and MW-13 are elevated above background. Early indications of possible improvement in water quality, particularly in monitoring well MW-12 were present in the analytical data, specifically with regard to Chemical Oxygen Demand and Total Organic Halogens in the fall sampling event, which may be the result of more recent leachate collection system repairs/improvements. Sampling in 2026 will provide additional data to evaluate if water quality improvements continue or not.

4.2 TRENDING IN MONITORING WELLS

There was one statistically significant trend identified by Mann-Kendall analysis at 99% confidence (α=0.01) during this reporting period. The trend analysis is included in the 2025 Statistical Output included in Appendix D. The statistically significant trends are summarized in the table below.

Statistically Significant Trends		
Monitoring Point	**Constituent**	**Trend**
MW-2R	Chloride	Increasing

Although not necessarily statistically significant, the Mann-Kendall statistics can provide an indication of general trending in the data. Trend indications for wells in the monitoring program are shown below. Trends classified as decreasing or increasing exhibited a statistically significant trend with 80% confidence (α=0.20) using the most recent eight data points. Trends classified as stable did not exhibit a statistically significant trend with 80% confidence using the eight most recent data points. A summary of Mann-Kendall statistics by constituent in each monitoring point is included in Appendix E.

Trending in Monitoring Wells				
Monitoring Well	**Decreasing Trends**	**Stable Trends**	**Increasing Trends**	**Number of Constituents Analyzed**
MW-2R	0.00%	60.00%	40.00%	5
MW-3 (u)	0.00%	85.71%	14.29%	7
MW-12	0.00%	57.14%	42.86%	7
MW-13	0.00%	71.43%	28.57%	7
Site Wide	**0.00%**	**69.23%**	**30.77%**	**26**

Review of the Mann-Kendall statistics indicated that approximately 69% of the Mann-Kendall statistics were considered stable during the 2025 statistical evaluation. The remainder of the trend indications were increasing.

5.0 RECOMMENDATIONS

5.1 SITE IMPACT ON GROUNDWATER

Groundwater sample analytical data from the Landfill HMSP monitoring well network indicates possible limited impact, particularly along the east side of the Landfill. Control limit exceedances were measured during this reporting period for two constituents in monitoring well MW-12.

5.2 PROPOSED MONITORING

No changes to the monitoring program are recommended at this time.

5.3 PROPOSED MONITORING WELL CHANGES

No changes to the monitoring wells are recommended at this time. The integrity of upgradient monitoring well MW-3 will be evaluated during the spring 2026 sampling event.

Tables

Table 1
Monitoring Program Summary
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	Control Limit Exceedances	Total Number of Samples in Each Monitoring Program Since January 1, 2018		
					Routine	Supplemental	Remedial Action
MW-3	Clayey silt	Upgradient	None	Not applicable	9	-	-
MW-2R	Silty clay	Routine	None	None	15	-	-
MW-12	Silty clay	Routine	None	Chemical Oxygen Demand, Chloride	15	-	-
MW-13	Silty clay	Routine	None	None	15	-	-

Notes:
[1] Obtained from screened interval on boring logs.

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents	
	April 2025	October 2025	April 2026	October 2026
MW-3	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”
MW-2R	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”
MW-12	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”
MW-13	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”	IAC 567-114.26(4)”e”	IAC 567-114.26(4)”e”&“f”

Notes: None

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Compliance with:	2023	2024	2025	2026	2027
567 IAC 114.21(2)"a" high and low water levels	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"b" changes in the hydrologic setting and flow paths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"c" well depths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"d" in-situ permeability tests*		Completed		Scheduled	

Comments:

* In accordance with Permit Amendment #7 (Doc #104256), biennial evaluations of well recharge rates measured from groundwater monitoring events will be conducted in lieu of 567 IAC 114.21(2)"d" in-situ permeability tests.

Table 4
Monitoring Well Performance and Maintenance Summary
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements April 2025	Date of Measurements October 2025
MW-3	1199.7	1088.1	119.0	Groundwater Level (ft)	116.40	NA
				Groundwater Elevation (Ft MSL)	1083.30	NA
				Measured Well Depth (ft)	117.9	74.0
				Submerged screen	N	NA
MW-2R	1128.1	1069.7	70.0	Groundwater Level (ft)	63.15	64.00
				Groundwater Elevation (Ft MSL)	1064.94	1064.09
				Measured Well Depth (ft)	70.8	70.4
				Submerged screen	N	N
MW-12	1123.5	1052.4	81.0	Groundwater Level (ft)	51.68	52.20
				Groundwater Elevation (Ft MSL)	1071.78	1071.26
				Measured Well Depth (ft)	80.1	79.5
				Submerged screen	Y	Y
MW-13	1134.0	1055.2	90.0	Groundwater Level (ft)	66.50	66.91
				Groundwater Elevation (Ft MSL)	1067.50	1067.09
				Measured Well Depth (ft)	92.0	91.9
				Submerged screen	Y	Y

Comments:

1) MW-2R, MW-12 and MW-13 well depths were within 2.0 feet of the installed depth. It does not appear that siltation is affecting the ability of the monitoring wells to produce samples.
2) The MW-3 well depth measurement during the October sampling event indicates an apparent obstruction in the well. A confirmation measurement will be made during the 1st 2026 semi-annual sampling event.

NA - Not Applicable.

Table 5
Background and GWPS Summary
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Interwell Background/GWPS (MW-3)

Constituent	Units	Samples	Detections	Background Level	Statistical Test	Action Level	Source
Ammonia as N	mg/L	36	0	0.4989	M+/-2SD	30	HAL
Chemical Oxygen Demand	mg/L	36	19	16.73	M+/-2SD	None	None
Chloride	mg/L	36	36	64.23	M+/-2SD	250	Secondary MCL
Iron, Dissolved	mg/L	36	10	1.09	M+/-2SD	None	None
pH	S.U.	35	35	8.474 | 6.468	M+/-2SD	8.5 - 6.5	Secondary MCL
Specific Conductance	umhos/cm	35	35	1691	M+/-2SD	None	None
Total Organic Halogens	mg/L	18	4	0.303	M+/-2SD	None	None
Total Phenols	mg/L	18	2	0.04738	M+/-2SD	None	None

Notes:

1) Background levels based on calculated control limits or reporting limit, as applicable.

Acronyms/Abbreviations:

RL = Reporting Limit
GWPS = Groundwater Protection Standard
SSS = Site-Specific GWPS
SWS = Statewide Standard
M+/-2SD = Mean Plus/Minus Two Standard Deviations
MCL = EPA Maximum Contaminant Level
HAL = Health Advisory Level

Comments:

1) **Water quality results and effectiveness of the statistical data evaluation criteria**: Statistical evaluations consist of control limits.
2) **Changes to the previous statistical method during reporting period:** There were no changes to the statistical method during the 2025 reporting period.
3) **Changes to Table 5:** There were no changes to Table 5 due to insufficient water within upgradient monitoring well MW-3 for sampling.

Table 6
Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

There were no control limit exceedances with no immediately preceding control limit exceedances.

Comments:

1) **Problems with the current HMSP network:** An apparent obstruction in monitoring well MW-3 was indicated during the 2nd 2025 semi-annual sampling event.
2) **Schedule to implement remedies:** A confirmation well depth measurement will be made in monitoring well MW-3 during the 1st 2026 semi-annual sampling event.
3) **Alternative constituent or sample frequency changes:** None.
4) **Significant changes to control limits:** None.

Table 7
Summary Table of Ongoing and Newly Identified Control Limit Exceedances
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Well	Constituent	Units	Most Recent Result	Background Standard
MW-12	Chemical Oxygen Demand	mg/L	25	16.73
	Chloride	mg/L	113	64.23

Notes:

(1) Ongoing control limit exceedance is a defined as a well/constituent pair having a control limit exceedance during the current reporting period and during the immediately preceding reporting period.

(2) Indicates a newly identified control limit exceedance during this reporting period.

Comments:

1) **Problems with the current HMSP network:** An apparent obstruction in monitoring well MW-3 was indicated during the 2nd 2025 semi-annual sampling event.
2) **Proposed remedies:** A confirmation well depth measurement will be made in monitoring well MW-3 during the 1st 2026 semi-annual sampling event.
3) **Alternative constituent or sample frequency changes:** None.
4) **Plume delineation strategies:** Not Applicable.
5) **Property owner notifications:** Not Applicable.

Table 8
Summary of Groundwater Chemistry
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

The Reporting Period Summary of Groundwater Chemistry is located in Appendix C.

Table 9
Historical Control Limit and Action Level Exceedances
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Key

Control Limit Exceedance

MCL Exceedance

Well	Constituent	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025
MW-12	Chemical Oxygen Demand								
	Chloride								
	Total Organic Halogens	NS		NS					
MW-13	Chemical Oxygen Demand								
	Chloride								
	Specific Conductance								
	Total Organic Halogens	NS		NS					

Comments:

NS - Not Sampled

Table 10
Groundwater Quality Assessment Plan Trend Analysis
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Well	Current SSL	Trend
None		

Notes:

There is no Groundwater Quality Asssessment Plan required for this facility.

Figures

Monitoring Well	Monitoring Program
MW-3	Background
MW-2R	Routine
MW-12	Routine
MW-13	Routine

Figure 1

N W E S

0 75 150 300 Feet

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Approved Monitoring Network

Legend

- HMSP Monitoring Well
- Monitoring Well
- Leachate Monitoring Point
- Manhole
- Approximate Waste Boundary
- Approximate Property Boundary

Anderson Excavating Council Bluffs Landfill
Council Bluffs, Iowa
Project No: 27225172.01
Drawing Date: November 2025

Groundwater Contours

Legend

- Approximate Groundwater Contours Based On Field Measurments Taken April 8, 2025
- Leachate Monitoring Point
- Monitoring Well
- Manhole
- Approximate Waste Boundary
- Approximate Property Boundary

Anderson Excavating Council Bluffs Landfill
Council Bluffs, Iowa
Project No: 27225172.01
Drawing Date: November 2025

Figure 2

N W E S

0 75 150 300 Feet

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Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEX**		
Monitoring Well/Piezometer ID:	**MW-2R**	Date:	**4/8/2025**
Gradient:	Down	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	70.8
Initial Static Water Level (feet):	63.15
Initial Groundwater Elevation (ft-amsl):	1064.94
Equipment Used:	Other

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:50 PM	Purging start time.						
12:53 PM	13.6	5.2	970.8	7.09	156.9	66.0	
12:56 PM	14.4	5.1	928.5	7.04	164.3	67.8	
12:59 PM	14.8	5.5	869.0	7.05	169.3	38.4	
1:02 PM	15.0	5.8	851.2	7.06	176.4	23.1	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE		
Does the well require any future maintenance?	Yes	
If yes, explain:	Tree/brush needs to be cleared.	

Additional Comments:	Color-Clear Odor-None DUPLICATE

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEX**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**4/8/2025**
Gradient:	Up	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	117.9
Initial Static Water Level (feet):	0.00
Initial Groundwater Elevation (ft-amsl):	0.00
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	SWL - 116.14

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEX**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**4/8/2025**
Gradient:	Down	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	80.1
Initial Static Water Level (feet):	51.68
Initial Groundwater Elevation (ft-amsl):	1071.78
Equipment Used:	Other

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:30 PM	Purging start time.						
1:33 PM	16.0	1.2	1133.9	7.05	13.8	382.3	
1:36 PM	15.7	0.5	1139.5	7.05	-0.9	437.9	
1:39 PM	15.4	0.3	1136.3	7.05	-7.3	451.8	
1:42 PM	15.6	0.2	1133.0	7.05	-12.8	391.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	191.67

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Cloudy/light brown Odor: Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEX**		
Monitoring Well/Piezometer ID:	**MW-13**	Date:	**4/8/2025**
Gradient:	Down	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	92.0
Initial Static Water Level (feet):	66.50
Initial Groundwater Elevation (ft-amsl):	1067.50
Equipment Used:	Other

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:14 AM	Purging start time.						
11:17 AM	14.6	0.9	1671.4	6.74	9.7	131.2	
11:20 AM	15.0	0.4	1674.9	6.74	-1.1	119.9	
11:23 AM	15.4	0.3	1670.2	6.75	-8.5	115.6	
11:26 AM	15.7	0.2	1670.7	6.75	-13.6	121.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Cloudy Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEXCB**		
Monitoring Well/Piezometer ID:	**MW-2R**	Date:	**10/7/2025**
Gradient:	Down	Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	70.4
Initial Static Water Level (feet):	64.00
Initial Groundwater Elevation (ft-amsl):	1064.09
Equipment Used:	Non-Dedicated Stainless Steel Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
4:43 PM	Purging start time.						
4:46 PM	15.1	4.8	1000.2	7.37	213.9	100.5	
4:49 PM	14.6	4.5	936.5	7.25	219.2	107.2	
4:52 PM	14.8	4.9	929.8	7.20	222.7	91.5	
4:55 PM	15.1	5.1	917.4	7.17	225.3	69.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	191.67

D. WELL MAINTENANCE		
Does the well require any future maintenance?	Yes	
If yes, explain:	Vegetation and trees block well path	

Additional Comments:	Color-Beige Odor-None Duplicate

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEXCB**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**10/7/2025**
Gradient:	Up	Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	74.0
Initial Static Water Level (feet):	0.00
Initial Groundwater Elevation (ft-amsl):	0.00
Equipment Used:	Non-Dedicated Stainless Steel Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0	
Was well pumped/bailed dry?	No	
Total Amount of Time Purged (minutes:seconds):		
Average Purge Rate (mL/min):	0.00	

D. WELL MAINTENANCE		
Does the well require any future maintenance?	Yes	
If yes, explain:	Obstruction in well	

Additional Comments:	DRY Depth chart from the spring is at 118.02 and a obstruction might be in the well since total depth was only 73.89

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEXCB**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**10/7/2025**
Gradient:	Down	Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	79.5
Initial Static Water Level (feet):	52.20
Initial Groundwater Elevation (ft-amsl):	1071.26
Equipment Used:	Non-Dedicated Stainless Steel Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:45 PM	Purging start time.						
1:48 PM	17.0	1.6	1150.5	7.09	259.9	238.6	
1:51 PM	17.0	0.9	1162.0	7.01	256.3	453.8	
1:54 PM	16.8	0.6	1152.7	7.02	238.0	489.4	
1:57 PM	16.7	0.5	1153.4	7.03	209.0	518.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**ANDEXCB**		
Monitoring Well/Piezometer ID:	**MW-13**	Date:	**10/7/2025**
Gradient: Down		Sampler:	Garrett Horak

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	91.9
Initial Static Water Level (feet):	66.91
Initial Groundwater Elevation (ft-amsl):	1067.09
Equipment Used:	Non-Dedicated Stainless Steel Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:55 PM	Purging start time.						
2:58 PM	17.6	2.1	1647.5	6.91	185.2	51.8	
3:01 PM	17.4	1.6	1653.0	6.83	165.1	55.9	
3:04 PM	17.4	1.5	1657.4	6.81	136.9	71.7	
3:07 PM	17.7	1.4	1659.0	6.81	106.3	77.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Clear Odor-Sulfur

Appendix B-1

Laboratory Analytical Data Sheets

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Madson
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 4/16/2025 3:43:34 PM

JOB DESCRIPTION

1st 2025 Semi-Annual Groundwater Sampling
Anderson Excavating Council Bluffs

JOB NUMBER

310-303708-1

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

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Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)595-2008

Table of Contents

Job ID: 310-303708-1 Eurofins Cedar Falls

Job Narrative
310-303708-1

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 4/9/2025 5:15 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.

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: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-303708-1	MW-2R	Ground Water	04/08/25 13:10	04/09/25 17:15
310-303708-2	MW-12	Ground Water	04/08/25 13:50	04/09/25 17:15
310-303708-3	MW-13	Ground Water	04/08/25 11:35	04/09/25 17:15
310-303708-4	MW-D	Ground Water	04/08/25 13:10	04/09/25 17:15

Detection Summary

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling

Job ID: 310-303708-1
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-2R — Lab Sample ID: 310-303708-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	8.62		5.00	4.60	mg/L	1		5220D LL	Total/NA
Chloride	18.2		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 310-303708-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.325	J	0.500	0.0790	mg/L	1		6010D	Dissolved
Chemical Oxygen Demand	53.8		10.0	9.20	mg/L	2		5220D LL	Total/NA
Chloride	110		20.0	14.0	mg/L	10		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 310-303708-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.400	J	0.500	0.0790	mg/L	1		6010D	Dissolved
Chemical Oxygen Demand	14.3		5.00	4.60	mg/L	1		5220D LL	Total/NA
Chloride	36.9		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-303708-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	16.6		10.0	9.20	mg/L	2		5220D LL	Total/NA
Chloride	17.2		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling

Job ID: 310-303708-1
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-2R

Date Collected: 04/08/25 13:10
Date Received: 04/09/25 17:15

Lab Sample ID: 310-303708-1

Matrix: Ground Water

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			04/16/25 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			04/14/25 22:56	1
Chemical Oxygen Demand (SM 5220D LL)	**8.62**		5.00	4.60	mg/L			04/13/25 16:42	1
Chloride (SM 4500 Cl- E)	**18.2**		2.00	1.40	mg/L			04/14/25 17:23	1

Client Sample Results

Client: SCS Engineers
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling

Job ID: 310-303708-1
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-12

Date Collected: 04/08/25 13:50
Date Received: 04/09/25 17:15

Lab Sample ID: 310-303708-2

Matrix: Ground Water

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.325**	**J**	0.500	0.0790	mg/L			04/16/25 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			04/14/25 22:56	1
Chemical Oxygen Demand (SM 5220D LL)	**53.8**		10.0	9.20	mg/L			04/13/25 16:42	2
Chloride (SM 4500 Cl- E)	**110**		20.0	14.0	mg/L			04/14/25 17:23	10

Client: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-13
Lab Sample ID: 310-303708-3
Date Collected: 04/08/25 11:35
Matrix: Ground Water
Date Received: 04/09/25 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.400**	**J**	0.500	0.0790	mg/L			04/16/25 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			04/14/25 22:58	1
Chemical Oxygen Demand (SM 5220D LL)	**14.3**		5.00	4.60	mg/L			04/13/25 16:42	1
Chloride (SM 4500 Cl- E)	**36.9**		2.00	1.40	mg/L			04/14/25 17:24	1

Client: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-D
Lab Sample ID: 310-303708-4
Date Collected: 04/08/25 13:10
Matrix: Ground Water
Date Received: 04/09/25 17:15

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			04/16/25 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			04/14/25 22:59	1
Chemical Oxygen Demand (SM 5220D LL)	16.6		10.0	9.20	mg/L			04/13/25 16:42	2
Chloride (SM 4500 Cl- E)	17.2		2.00	1.40	mg/L			04/14/25 17:24	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: 6010D - Metals (ICP)

Lab Sample ID: MB 310-451788/159
Matrix: Water
Analysis Batch: 451788

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			04/16/25 13:22	1

Lab Sample ID: MB 310-451788/180
Matrix: Water
Analysis Batch: 451788

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			04/16/25 13:48	1

Lab Sample ID: LCS 310-451788/160
Matrix: Water
Analysis Batch: 451788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			20.0	19.20		mg/L		96	80 - 120		

Lab Sample ID: LCS 310-451788/181
Matrix: Water
Analysis Batch: 451788

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			20.0	19.00		mg/L		95	80 - 120		

Lab Sample ID: 310-303708-1 DU
Matrix: Ground Water
Analysis Batch: 451788

Client Sample ID: MW-2R
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Iron	<0.500			<0.500		mg/L				NC	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-451572/133
Matrix: Water
Analysis Batch: 451572

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.110	mg/L			04/14/25 22:49	1

Lab Sample ID: LCS 310-451572/134
Matrix: Water
Analysis Batch: 451572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			8.55	7.929		mg/L		93	90 - 110		

Method: 5220D LL - COD

Lab Sample ID: MB 310-451443/60
Matrix: Water
Analysis Batch: 451443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.60	mg/L			04/13/25 16:42	1

Lab Sample ID: LCS 310-451443/63
Matrix: Water
Analysis Batch: 451443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	128.3		mg/L		102	85 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 310-451567/45
Matrix: Water
Analysis Batch: 451567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00	1.40	mg/L			04/14/25 16:37	1

Lab Sample ID: MB 310-451567/81
Matrix: Water
Analysis Batch: 451567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00	1.40	mg/L			04/14/25 17:17	1

Lab Sample ID: LCS 310-451567/46
Matrix: Water
Analysis Batch: 451567

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	10.83		mg/L		108	90 - 110

Lab Sample ID: LCS 310-451567/82
Matrix: Water
Analysis Batch: 451567

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	10.19		mg/L		102	90 - 110

Metals

Analysis Batch: 451788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303708-1	MW-2R	Dissolved	Ground Water	6010D	
310-303708-2	MW-12	Dissolved	Ground Water	6010D	
310-303708-3	MW-13	Dissolved	Ground Water	6010D	
310-303708-4	MW-D	Dissolved	Ground Water	6010D	
MB 310-451788/159	Method Blank	Total/NA	Water	6010D	
MB 310-451788/180	Method Blank	Total/NA	Water	6010D	
LCS 310-451788/160	Lab Control Sample	Total/NA	Water	6010D	
LCS 310-451788/181	Lab Control Sample	Total/NA	Water	6010D	
310-303708-1 DU	MW-2R	Dissolved	Ground Water	6010D	

General Chemistry

Analysis Batch: 451443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303708-1	MW-2R	Total/NA	Ground Water	5220D LL	
310-303708-2	MW-12	Total/NA	Ground Water	5220D LL	
310-303708-3	MW-13	Total/NA	Ground Water	5220D LL	
310-303708-4	MW-D	Total/NA	Ground Water	5220D LL	
MB 310-451443/60	Method Blank	Total/NA	Water	5220D LL	
LCS 310-451443/63	Lab Control Sample	Total/NA	Water	5220D LL	

Analysis Batch: 451567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303708-1	MW-2R	Total/NA	Ground Water	SM 4500 Cl- E	
310-303708-2	MW-12	Total/NA	Ground Water	SM 4500 Cl- E	
310-303708-3	MW-13	Total/NA	Ground Water	SM 4500 Cl- E	
310-303708-4	MW-D	Total/NA	Ground Water	SM 4500 Cl- E	
MB 310-451567/45	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 310-451567/81	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 310-451567/46	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 310-451567/82	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 451572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-303708-1	MW-2R	Total/NA	Ground Water	350.1	
310-303708-2	MW-12	Total/NA	Ground Water	350.1	
310-303708-3	MW-13	Total/NA	Ground Water	350.1	
310-303708-4	MW-D	Total/NA	Ground Water	350.1	
MB 310-451572/133	Method Blank	Total/NA	Water	350.1	
LCS 310-451572/134	Lab Control Sample	Total/NA	Water	350.1	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Client Sample ID: MW-2R
Lab Sample ID: 310-303708-1
Date Collected: 04/08/25 13:10
Matrix: Ground Water
Date Received: 04/09/25 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	451788	ZRI4	EET CF	04/16/25 13:51
Total/NA	Analysis	350.1		1	451572	ZJX4	EET CF	04/14/25 22:56
Total/NA	Analysis	5220D LL		1	451443	HE7K	EET CF	04/13/25 16:42
Total/NA	Analysis	SM 4500 Cl- E		1	451567	ENB7	EET CF	04/14/25 17:23

Client Sample ID: MW-12
Lab Sample ID: 310-303708-2
Date Collected: 04/08/25 13:50
Matrix: Ground Water
Date Received: 04/09/25 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	451788	ZRI4	EET CF	04/16/25 13:53
Total/NA	Analysis	350.1		1	451572	ZJX4	EET CF	04/14/25 22:56
Total/NA	Analysis	5220D LL		2	451443	HE7K	EET CF	04/13/25 16:42
Total/NA	Analysis	SM 4500 Cl- E		10	451567	ENB7	EET CF	04/14/25 17:23

Client Sample ID: MW-13
Lab Sample ID: 310-303708-3
Date Collected: 04/08/25 11:35
Matrix: Ground Water
Date Received: 04/09/25 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	451788	ZRI4	EET CF	04/16/25 13:56
Total/NA	Analysis	350.1		1	451572	ZJX4	EET CF	04/14/25 22:58
Total/NA	Analysis	5220D LL		1	451443	HE7K	EET CF	04/13/25 16:42
Total/NA	Analysis	SM 4500 Cl- E		1	451567	ENB7	EET CF	04/14/25 17:24

Client Sample ID: MW-D
Lab Sample ID: 310-303708-4
Date Collected: 04/08/25 13:10
Matrix: Ground Water
Date Received: 04/09/25 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	451788	ZRI4	EET CF	04/16/25 13:57
Total/NA	Analysis	350.1		1	451572	ZJX4	EET CF	04/14/25 22:59
Total/NA	Analysis	5220D LL		2	451443	HE7K	EET CF	04/13/25 16:42
Total/NA	Analysis	SM 4500 Cl- E		1	451567	ENB7	EET CF	04/14/25 17:24

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

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: SCS Engineers
Job ID: 310-303708-1
Project/Site: 1st 2025 Semi-Annual Groundwater Sampling
SDG: Anderson Excavating Council Bluffs

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
SM 4500 Cl- E	Chloride, Total	SM	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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

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310-303708 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SGS

City/State: W. Des Moines (CITY) IA (STATE) | Project:

Receipt Information

Date/Time Received: DATE 4/9/25 TIME 1715 | Received By: XB

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: 2 | 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): -0.1 | 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 TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613-6907
phone 319.277 2401 fax 319 277.2425

TestAmerica Des Moines SC
214

Chain of Custody Record

eurofins

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email bmadson@scsengineers com	Lab Contact: Samuel Miller	Carrier:	1 of 1 COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler
West Des Moines, IA 50265	Analysis Turnaround Time			For Lab Use Only:
515-631-6160	☐CALENDAR DAYS ☐WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name 1st 2025 Semi-Annual Groundwater Sampling	☐ 2 weeks			
Site Anderson Excavating - Council Bluffs	☐ 1 week			Job / SDG No
P O # 27225172.01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	"e" list	Sample Specific Notes.
MW-2R	4-8-25	13:10	G	GW	3			X	IAC 567-114.26(4)"e" list.
MW-3	~~4-8-25~~		G	GW				X	
MW-12	4-8-25	13:50	G	GW	3			X	
MW-13	4-8-25	11:35	G	GW	3			X	
MW-D	4-8-25	13:10	G	GW	3			X	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☐Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐Yes ☐No	Custody Seal No.		Cooler Temp. (°C) Obs'd _____ Corr'd _____		Therm ID No _____
Relinquished by: Homer Bouton	Company SCS	Date/Time: 4-8-25/17:00	Received by:	Company	Date/Time: 4-9-25 0700
Relinquished by:	Company:	Date/Time: 4 9 0700	Received by:	Company	Date/Time
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 4/9/25 1715

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

4/16/2025

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-303708-1
SDG Number: Anderson Excavating Council Bluffs

Login Number: 303708
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	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 10/24/2025 3:13:10 PM

JOB DESCRIPTION

Anderson CB - 2nd 2025 GW Sampling Event
Anderson Excavating - Council Bluffs

JOB NUMBER

310-317857-1

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

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10/24/2025 3:13:10 PM

Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)595-2008

Table of Contents

Job ID: 310-317857-1 Eurofins Cedar Falls

Job Narrative
310-317857-1

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 10/10/2025 4:30 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 3.6°C.

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

General Chemistry
Method 9020B_Calc: Breakthrough exceeded 10% for the following samples:MW-12 (310-317857-2).

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

Sample Summary

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-317857-1	MW-2R	Groundwater	10/07/25 17:17	10/10/25 16:30	Iowa
310-317857-2	MW-12	Groundwater	10/07/25 14:13	10/10/25 16:30	Iowa
310-317857-3	MW-13	Groundwater	10/07/25 15:20	10/10/25 16:30	Iowa
310-317857-4	MW-D	Groundwater	10/07/25 17:17	10/10/25 16:30	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event

Job ID: 310-317857-1
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-2R — Lab Sample ID: 310-317857-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Halogens, Total Organic	10.1	J	30.0	7.50	ug/L	1		9020B	Total/NA
Chloride	21.5		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 310-317857-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.345	J	0.500	0.0790	mg/L	1		6010D	Dissolved
Chemical Oxygen Demand	25.0		5.00	4.60	mg/L	1		5220D LL	Total/NA
Halogens, Total Organic	64.9		60.0	15.0	ug/L	1		9020B	Total/NA
Chloride	113		20.0	14.0	mg/L	10		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 310-317857-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.611		0.500	0.0790	mg/L	1		6010D	Dissolved
Chemical Oxygen Demand	6.83		5.00	4.60	mg/L	1		5220D LL	Total/NA
Halogens, Total Organic	23.9	J	30.0	7.50	ug/L	1		9020B	Total/NA
Chloride	37.7		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-317857-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Halogens, Total Organic	16.4	J	30.0	7.50	ug/L	1		9020B	Total/NA
Chloride	23.7		2.00	1.40	mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-2R
Lab Sample ID: 310-317857-1
Date Collected: 10/07/25 17:17
Matrix: Groundwater
Date Received: 10/10/25 16:30

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			10/24/25 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			10/16/25 20:57	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.60	mg/L			10/15/25 09:50	1
Halogens, Total Organic (SW846 9020B)	**10.1**	**J**	30.0	7.50	ug/L			10/20/25 16:24	1
Phenols, Total (SW846 9066)	<0.0220		0.0220	0.0110	mg/L		10/17/25 09:59	10/18/25 14:51	1
Chloride (SM 4500 Cl- E)	**21.5**		2.00	1.40	mg/L			10/16/25 03:13	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-12
Lab Sample ID: 310-317857-2
Date Collected: 10/07/25 14:13
Matrix: Groundwater
Date Received: 10/10/25 16:30

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.345**	**J**	0.500	0.0790	mg/L			10/24/25 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			10/16/25 20:58	1
Chemical Oxygen Demand (SM 5220D LL)	**25.0**		5.00	4.60	mg/L			10/15/25 09:50	1
Halogens, Total Organic (SW846 9020B)	**64.9**		60.0	15.0	ug/L			10/21/25 11:38	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/17/25 09:59	10/18/25 14:52	1
Chloride (SM 4500 Cl- E)	**113**		20.0	14.0	mg/L			10/16/25 03:14	10

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-13
Lab Sample ID: 310-317857-3
Date Collected: 10/07/25 15:20
Matrix: Groundwater
Date Received: 10/10/25 16:30

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.611		0.500	0.0790	mg/L			10/24/25 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			10/16/25 20:59	1
Chemical Oxygen Demand (SM 5220D LL)	6.83		5.00	4.60	mg/L			10/15/25 09:50	1
Halogens, Total Organic (SW846 9020B)	23.9	J	30.0	7.50	ug/L			10/20/25 16:24	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/17/25 09:59	10/18/25 14:52	1
Chloride (SM 4500 Cl- E)	37.7		2.00	1.40	mg/L			10/16/25 03:14	1

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-D
Lab Sample ID: 310-317857-4
Date Collected: 10/07/25 17:17
Matrix: Groundwater
Date Received: 10/10/25 16:30

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			10/24/25 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<0.200		0.200	0.110	mg/L			10/16/25 21:00	1
Chemical Oxygen Demand (SM 5220D LL)	<5.00		5.00	4.60	mg/L			10/15/25 09:50	1
Halogens, Total Organic (SW846 9020B)	**16.4**	**J**	30.0	7.50	ug/L			10/20/25 16:24	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/17/25 09:59	10/18/25 14:53	1
Chloride (SM 4500 Cl- E)	**23.7**		2.00	1.40	mg/L			10/16/25 03:15	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: 6010D - Metals (ICP)

Lab Sample ID: MB 310-471292/16
Matrix: Water
Analysis Batch: 471292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L			10/24/25 13:03	1

Lab Sample ID: LCS 310-471292/19
Matrix: Water
Analysis Batch: 471292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	20.0	21.41		mg/L		107	80 - 120

Lab Sample ID: 310-317857-1 DU
Matrix: Groundwater
Analysis Batch: 471292

Client Sample ID: MW-2R
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	<0.500		<0.500		mg/L		NC	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-470430/150
Matrix: Water
Analysis Batch: 470430

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.110	mg/L			10/16/25 22:33	1

Lab Sample ID: MB 310-470430/70
Matrix: Water
Analysis Batch: 470430

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.110	mg/L			10/16/25 20:45	1

Lab Sample ID: LCS 310-470430/151
Matrix: Water
Analysis Batch: 470430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	5.65	5.410		mg/L		96	90 - 110

Lab Sample ID: LCS 310-470430/71
Matrix: Water
Analysis Batch: 470430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	5.65	5.463		mg/L		97	90 - 110

Method: 5220D LL - COD

Lab Sample ID: MB 310-470150/5
Matrix: Water
Analysis Batch: 470150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.60	mg/L			10/15/25 09:50	1

Lab Sample ID: LCS 310-470150/3
Matrix: Water
Analysis Batch: 470150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	62.7	63.18		mg/L		101	85 - 115

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-718619/2
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<30.0		30.0	7.50	ug/L			10/20/25 16:24	1

Lab Sample ID: LCS 280-718619/4
Matrix: Water
Analysis Batch: 718619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	100	100.2		ug/L		100	78 - 114

Lab Sample ID: 310-317857-1 MS
Matrix: Groundwater
Analysis Batch: 718619

Client Sample ID: MW-2R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	10.1	J	100	110.4		ug/L		100	78 - 114

Lab Sample ID: 310-317857-1 MSD
Matrix: Groundwater
Analysis Batch: 718619

Client Sample ID: MW-2R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Halogens, Total Organic	10.1	J	100	115.1		ug/L		105	78 - 114	4	23

Lab Sample ID: MB 280-718998/2
Matrix: Water
Analysis Batch: 718998

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<30.0		30.0	7.50	ug/L			10/21/25 11:38	1

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: LCS 280-718998/4
Matrix: Water
Analysis Batch: 718998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	100	107.7		ug/L		108	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-470446/1-A
Matrix: Water
Analysis Batch: 470548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 470446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200	0.0100	mg/L		10/17/25 09:59	10/18/25 14:47	1

Lab Sample ID: LCS 310-470446/2-A
Matrix: Water
Analysis Batch: 470548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 470446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.1070		mg/L		107	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 310-470259/6
Matrix: Water
Analysis Batch: 470259

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.00		2.00	1.40	mg/L			10/16/25 03:03	1

Lab Sample ID: LCS 310-470259/4
Matrix: Water
Analysis Batch: 470259

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	10.79		mg/L		108	90 - 110

Metals

Analysis Batch: 471292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Dissolved	Groundwater	6010D	
310-317857-2	MW-12	Dissolved	Groundwater	6010D	
310-317857-3	MW-13	Dissolved	Groundwater	6010D	
310-317857-4	MW-D	Dissolved	Groundwater	6010D	
MB 310-471292/16	Method Blank	Total/NA	Water	6010D	
LCS 310-471292/19	Lab Control Sample	Total/NA	Water	6010D	
310-317857-1 DU	MW-2R	Dissolved	Groundwater	6010D	

General Chemistry

Analysis Batch: 470150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	5220D LL	
310-317857-2	MW-12	Total/NA	Groundwater	5220D LL	
310-317857-3	MW-13	Total/NA	Groundwater	5220D LL	
310-317857-4	MW-D	Total/NA	Groundwater	5220D LL	
MB 310-470150/5	Method Blank	Total/NA	Water	5220D LL	
LCS 310-470150/3	Lab Control Sample	Total/NA	Water	5220D LL	

Analysis Batch: 470259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	SM 4500 Cl- E	
310-317857-2	MW-12	Total/NA	Groundwater	SM 4500 Cl- E	
310-317857-3	MW-13	Total/NA	Groundwater	SM 4500 Cl- E	
310-317857-4	MW-D	Total/NA	Groundwater	SM 4500 Cl- E	
MB 310-470259/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 310-470259/4	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 470430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	350.1	
310-317857-2	MW-12	Total/NA	Groundwater	350.1	
310-317857-3	MW-13	Total/NA	Groundwater	350.1	
310-317857-4	MW-D	Total/NA	Groundwater	350.1	
MB 310-470430/150	Method Blank	Total/NA	Water	350.1	
MB 310-470430/70	Method Blank	Total/NA	Water	350.1	
LCS 310-470430/151	Lab Control Sample	Total/NA	Water	350.1	
LCS 310-470430/71	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 470446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	Distill/Phenol	
310-317857-2	MW-12	Total/NA	Groundwater	Distill/Phenol	
310-317857-3	MW-13	Total/NA	Groundwater	Distill/Phenol	
310-317857-4	MW-D	Total/NA	Groundwater	Distill/Phenol	
MB 310-470446/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-470446/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 470548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	9066	470446

General Chemistry (Continued)

Analysis Batch: 470548 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-2	MW-12	Total/NA	Groundwater	9066	470446
310-317857-3	MW-13	Total/NA	Groundwater	9066	470446
310-317857-4	MW-D	Total/NA	Groundwater	9066	470446
MB 310-470446/1-A	Method Blank	Total/NA	Water	9066	470446
LCS 310-470446/2-A	Lab Control Sample	Total/NA	Water	9066	470446

Analysis Batch: 718619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-1	MW-2R	Total/NA	Groundwater	9020B	
310-317857-3	MW-13	Total/NA	Groundwater	9020B	
310-317857-4	MW-D	Total/NA	Groundwater	9020B	
MB 280-718619/2	Method Blank	Total/NA	Water	9020B	
LCS 280-718619/4	Lab Control Sample	Total/NA	Water	9020B	
310-317857-1 MS	MW-2R	Total/NA	Groundwater	9020B	
310-317857-1 MSD	MW-2R	Total/NA	Groundwater	9020B	

Analysis Batch: 718998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-317857-2	MW-12	Total/NA	Groundwater	9020B	
MB 280-718998/2	Method Blank	Total/NA	Water	9020B	
LCS 280-718998/4	Lab Control Sample	Total/NA	Water	9020B	

Client Sample ID: MW-2R

Date Collected: 10/07/25 17:17
Date Received: 10/10/25 16:30

Lab Sample ID: 310-317857-1

Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	471292	ZRI4	EET CF	10/24/25 13:08
Total/NA	Analysis	350.1		1	470430	ZJX4	EET CF	10/16/25 20:57
Total/NA	Analysis	5220D LL		1	470150	ENB7	EET CF	10/15/25 09:50
Total/NA	Analysis	9020B		1	718619	CAI	EET DEN	10/20/25 16:24
Total/NA	Prep	Distill/Phenol			470446	ENB7	EET CF	10/17/25 09:59
Total/NA	Analysis	9066		1	470548	ENB7	EET CF	10/18/25 14:51
Total/NA	Analysis	SM 4500 Cl- E		1	470259	ZJX4	EET CF	10/16/25 03:13

Client Sample ID: MW-12

Date Collected: 10/07/25 14:13
Date Received: 10/10/25 16:30

Lab Sample ID: 310-317857-2

Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	471292	ZRI4	EET CF	10/24/25 13:11
Total/NA	Analysis	350.1		1	470430	ZJX4	EET CF	10/16/25 20:58
Total/NA	Analysis	5220D LL		1	470150	ENB7	EET CF	10/15/25 09:50
Total/NA	Analysis	9020B		1	718998	CAI	EET DEN	10/21/25 11:38
Total/NA	Prep	Distill/Phenol			470446	ENB7	EET CF	10/17/25 09:59
Total/NA	Analysis	9066		1	470548	ENB7	EET CF	10/18/25 14:52
Total/NA	Analysis	SM 4500 Cl- E		10	470259	ZJX4	EET CF	10/16/25 03:14

Client Sample ID: MW-13

Date Collected: 10/07/25 15:20
Date Received: 10/10/25 16:30

Lab Sample ID: 310-317857-3

Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	471292	ZRI4	EET CF	10/24/25 13:13
Total/NA	Analysis	350.1		1	470430	ZJX4	EET CF	10/16/25 20:59
Total/NA	Analysis	5220D LL		1	470150	ENB7	EET CF	10/15/25 09:50
Total/NA	Analysis	9020B		1	718619	CAI	EET DEN	10/20/25 16:24
Total/NA	Prep	Distill/Phenol			470446	ENB7	EET CF	10/17/25 09:59
Total/NA	Analysis	9066		1	470548	ENB7	EET CF	10/18/25 14:52
Total/NA	Analysis	SM 4500 Cl- E		1	470259	ZJX4	EET CF	10/16/25 03:14

Client Sample ID: MW-D

Date Collected: 10/07/25 17:17
Date Received: 10/10/25 16:30

Lab Sample ID: 310-317857-4

Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	6010D		1	471292	ZRI4	EET CF	10/24/25 13:15
Total/NA	Analysis	350.1		1	470430	ZJX4	EET CF	10/16/25 21:00
Total/NA	Analysis	5220D LL		1	470150	ENB7	EET CF	10/15/25 09:50
Total/NA	Analysis	9020B		1	718619	CAI	EET DEN	10/20/25 16:24

Lab Chronicle

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Client Sample ID: MW-D
Lab Sample ID: 310-317857-4
Date Collected: 10/07/25 17:17
Matrix: Groundwater
Date Received: 10/10/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	Distill/Phenol			470446	ENB7	EET CF	10/17/25 09:59
Total/NA	Analysis	9066		1	470548	ENB7	EET CF	10/18/25 14:53
Total/NA	Analysis	SM 4500 Cl- E		1	470259	ZJX4	EET CF	10/16/25 03:15

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

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

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-26
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	10-21-25
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	10-21-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-26
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	07-25-25 *
Oklahoma	NELAP	8614	12-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	10-23-25
South Carolina	State	72002001	01-18-26
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-26
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-26
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-26
Wyoming (UST)	A2LA	2907.01	10-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: SCS Engineers
Job ID: 310-317857-1
Project/Site: Anderson CB - 2nd 2025 GW Sampling Event
SDG: Anderson Excavating - Council Bluffs

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
SM 4500 Cl- E	Chloride, Total	SM	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

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.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

eurofins | Environment Testing America

310-317857 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State. CITY W. Des Moines STATE IA Project:

Receipt Information

Date/Time Received. DATE 10.10.25 TIME 1630 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: 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). 3.6 Corrected Temp (°C): 3.6

• 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
DES MOINES SERVICE CENTER
214

Chain of Custody Record

eurofins

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613-6907
phone 319 277.2401 fax 319.277 2425

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Sean Marczewski	Site Contact: Sean Marczewski	Date:	COC No
SCS Engineers	Email smarczewski@scsengineers.com	Lab Contact: Samuel Miller	Carrier:	1 of 1 COCs
1690 All-State Court, Suite 100	Cell 712-661-9682			Sampler
West Des Moines, IA 50265	Analysis Turnaround Time			For Lab Use Only:
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name Anderson CB - 2nd 2025 GW Sampling Event	☐ 2 weeks			Job / SDG No
Site Anderson Excavating - Council Bluffs	☐ 1 week			
P O # 27225172.01	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	"e" List	"f" List	Sample Specific Notes
MW-2R	10-7-25	1717	G	GW				X	X	
MW-3			G	GW				X	X	
MW-12	10-7-25	1413	G	GW				X	X	
MW-13	10-7-25	1520	G	GW				X	X	
MW-D	10-7-25	1717	G	GW				X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☑ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: IAC 567-114.26(4)"e"&"f"

"e" List Parameters: Chloride, ammonia nitrogen, dissolved iron, & chemical oxygen demand.

"f" List Parameters: Total organic halogens (TOX) & phenols.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

Relinquished by: [signature]	Company: SCS	Date/Time: 10/10/25 1400	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time	Received by:	Company:	Date/Time
Relinquished by: [signature]	Company:	Date/Time.	Received in Laboratory by: [signature]	Company:	Date/Time: 10/10/25 1630

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller, Samuel	Carrier Tracking No(s): N/A	COC No: 310-87805.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-317857-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 10/23/2025			
City: Arvada	TAT Requested (days): N/A			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Anderson CB - 2nd 2025 GW Sampling Event	Project #: 31002851			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:
-

Other:
N/A

Sample Identification - Client ID (Lab ID)	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)	9020B_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-2R (310-317857-1)	10/7/25	17:17 Central	G	Water			X	1	
MW-12 (310-317857-2)	10/7/25	14:13 Central	G	Water			X	1	
MW-13 (310-317857-3)	10/7/25	15:20 Central	G	Water			X	1	
MW-D (310-317857-4)	10/7/25	17:17 Central	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/13/25 1010			10-14-25 0910	EET DEN
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:
		3.0, CF: -0.3, IR:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-317857-1
SDG Number: Anderson Excavating - Council Bluffs

Login Number: 317857
List Number: 1
Creator: Collins, Charlotte G

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	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-317857-1
SDG Number: Anderson Excavating - Council Bluffs

Login Number: 317857
List Number: 2
Creator: Little, Matthew L

List Source: Eurofins Denver
List Creation: 10/14/25 06:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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.	N/A	
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 B-2

Data Validation

Completed by: Brett Hazen
Date of Sampling: 4/8/2025
Lab Report Date: 4/16/2025
Site Name: Anderson Excavating Council Bluffs C&D
Project Type: 1st 2025 Semi-Annual Groundwater Event
Lab Report Number: 310-303708-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)			X	
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			MW-12 and duplicate sample MW-D had < 50% RPD for analyzed parameters with the exception of Chemical Oxygen Demand

Completed by: Brett Hazen
Date of Sampling: 10/7/2025
Lab Report Date: 10/24/2025
Site Name: Anderson Excavating Council Bluffs C&D
Project Type: 2nd 2025 Semi-Annual Groundwater Event
Lab Report Number: 310-317857-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivty and Blanks				
Method Blank Detections	X			
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)			X	
Precision				
QA/QC Sample RPDs		X		Breakthrough exceeded 10% for sample MW-12.
Field Duplicates	X			MW-2R and duplicate sample MW-D had < 50% RPD for analyzed parameters.

Appendix C

Summary of Groundwater Chemistry

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Ammonia as N, mg/L (CAS NO - 7664-41-7)	2/27/1997	N/A	< 0.2	N/A	N/A
	4/7/1998	N/A	< 0.2	N/A	N/A
	10/16/1998	N/A	< 0.2	N/A	N/A
	4/16/1999	N/A	< 0.2	N/A	N/A
	10/7/1999	N/A	< 0.2	N/A	N/A
	4/5/2000	< 1	< 1	N/A	N/A
	10/12/2000	< 1	< 1	N/A	N/A
	3/27/2001	< 1	< 1	N/A	N/A
	10/3/2001	< 1	< 1	N/A	N/A
	4/23/2002	< 1	< 1	N/A	N/A
	10/3/2002	< 1	< 1	N/A	N/A
	4/17/2003	< 0.2	< 0.2	N/A	N/A
	10/15/2003	< 0.2	< 0.2	N/A	N/A
	4/15/2004	< 0.2	< 0.2	N/A	N/A
	10/4/2004	< 0.2	**0.33**	N/A	N/A
	4/5/2005	< 0.2	< 0.2	N/A	N/A
	10/10/2005	< 0.2	N/A	N/A	N/A
	4/18/2006	< 0.2	N/A	N/A	N/A
	4/1/2008	N/A	< 0.4	N/A	N/A
	10/24/2008	N/A	< 0.2	N/A	N/A
	4/29/2010	N/A	< 0.2	N/A	N/A
	10/26/2010	< 0.2	< 0.2	N/A	N/A
	4/19/2011	< 0.2	< 0.2	N/A	N/A
	10/4/2011	< 0.2	< 0.2	N/A	N/A
	4/17/2012	< 1	< 1	N/A	N/A
	9/12/2012	< 0.2	< 0.2	N/A	N/A
	4/3/2013	< 0.2	N/A	N/A	N/A
	10/17/2013	< 0.2	N/A	N/A	N/A
	4/29/2014	< 0.2	N/A	N/A	N/A
	10/31/2014	< 0.2	N/A	N/A	N/A
	4/8/2015	< 0.2	N/A	N/A	N/A
	10/27/2015	< 0.2	N/A	N/A	N/A
	10/3/2016	< 0.2	N/A	N/A	N/A
	4/11/2017	< 0.2	< 0.2	< 0.2	< 0.2
	7/17/2017	N/A	< 0.2	< 0.2	< 0.2
	10/26/2017	< 0.2	< 0.2	< 0.2	< 0.2
	12/28/2017	N/A	< 0.2	< 0.2	< 0.2
	10/3/2018	N/A	< 0.2	< 0.2	< 0.2
	4/9/2019	< 0.2	< 0.2	< 0.2	< 0.2
	10/8/2019	< 0.2	< 0.2	< 0.2	< 0.2
	7/1/2020	< 0.2	< 0.2	< 0.2	< 0.2
	7/1/2020	N/A	N/A	< 0.2	N/A
	10/15/2020	< 0.2	< 0.2	< 0.2	< 0.2
	10/15/2020	N/A	< 0.2	N/A	N/A
	5/7/2021	< 0.2	< 0.2	< 0.2	< 0.2
	5/7/2021	< 0.2	N/A	N/A	N/A
	10/26/2021	< 0.2	< 0.2	< 0.2	< 0.2
	10/26/2021	N/A	N/A	N/A	< 0.2
	4/6/2022	< 0.2	< 0.2	< 0.2	< 0.2
	4/6/2022	N/A	< 0.2	N/A	N/A
	10/19/2022	< 0.2	< 0.2	< 0.2	< 0.2
	10/19/2022	N/A	N/A	< 0.2	N/A
	4/18/2023	< 0.2	< 0.2	< 0.2	< 0.2
	4/18/2023	< 0.2	N/A	N/A	N/A
	10/26/2023	N/A	< 0.2	< 0.2	< 0.2
	10/26/2023	N/A	N/A	N/A	**0.481**
	4/19/2024	N/A	< 0.2	< 0.2	< 0.2
	4/19/2024	N/A	N/A	N/A	< 0.2

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Ammonia as N, mg/L (CAS NO - 7664-41-7)	10/8/2024	N/A	< 0.2	< 0.2	< 0.2
	10/8/2024	N/A	N/A	**0.336**	N/A
	4/8/2025	N/A	< 0.2	< 0.2	< 0.2
	4/8/2025	N/A	< 0.2	N/A	N/A
	10/7/2025	N/A	< 0.2	< 0.2	< 0.2
	10/7/2025	N/A	< 0.2	N/A	N/A
Chemical Oxygen Demand, mg/L (CAS NO - COD)	2/27/1997	N/A	< 5	N/A	N/A
	4/7/1998	N/A	< 5	N/A	N/A
	10/16/1998	N/A	< 5	N/A	N/A
	4/16/1999	N/A	< 5	N/A	N/A
	10/7/1999	N/A	< 5	N/A	N/A
	4/5/2000	< 10	< 10	N/A	N/A
	10/12/2000	< 10	< 10	N/A	N/A
	3/27/2001	< 10	< 10	N/A	N/A
	10/3/2001	< 10	< 10	N/A	N/A
	4/23/2002	< 10	< 10	N/A	N/A
	10/3/2002	< 10	< 10	N/A	N/A
	4/17/2003	**6**	**6.5**	N/A	N/A
	10/15/2003	< 5	< 5	N/A	N/A
	4/15/2004	**5.6**	< 5	N/A	N/A
	10/4/2004	< 5	< 5	N/A	N/A
	4/5/2005	< 5	< 5	N/A	N/A
	10/10/2005	**12**	N/A	N/A	N/A
	4/18/2006	**10.9**	N/A	N/A	N/A
	4/1/2008	N/A	< 5	N/A	N/A
	10/24/2008	N/A	< 5	N/A	N/A
	4/29/2010	N/A	< 5	N/A	N/A
	10/26/2010	**7.1**	< 5	N/A	N/A
	4/19/2011	**5.6**	< 5	N/A	N/A
	10/4/2011	< 5	< 5	N/A	N/A
	4/17/2012	**28**	**33**	N/A	N/A
	9/12/2012	< 5	< 5	N/A	N/A
	4/3/2013	< 5	N/A	N/A	N/A
	10/17/2013	**4.6**	N/A	N/A	N/A
	4/29/2014	< 5	N/A	N/A	N/A
	10/31/2014	**8.6**	N/A	N/A	N/A
	4/8/2015	**5.15**	N/A	N/A	N/A
	10/27/2015	< 5	N/A	N/A	N/A
	10/3/2016	**20.7**	N/A	N/A	N/A
	4/11/2017	< 5	< 5	< 5	**9.8**
	7/17/2017	N/A	**8.54**	**10**	< 5
	10/26/2017	< 5	< 5	**5.22**	**14**
	12/28/2017	N/A	< 5	< 5	**10.6**
	10/3/2018	N/A	< 5	< 5	**14.8**
	4/9/2019	**5.21**	< 5	**4.85**	**22.1**
	10/8/2019	< 5	< 5	< 5	**4.9**
	7/1/2020	**9.1**	**7.78**	**18.7**	**25.6**
	7/1/2020	N/A	N/A	**12.1**	N/A
	10/15/2020	**10.5**	**10.5**	**13.5**	**17.7**
	10/15/2020	N/A	< 5	N/A	N/A
	5/7/2021	< 5	< 5	**16.7**	**24.6**
	5/7/2021	**7.8**	N/A	N/A	N/A
	10/26/2021	**7.88**	**7.53**	**19.7**	**24.2**
	10/26/2021	N/A	N/A	N/A	**27**
	4/6/2022	**5.09**	< 5	**12.5**	**8.63**
	4/6/2022	N/A	< 5	N/A	N/A
	10/19/2022	**8**	< 5	**22.3**	**5.52**
	10/19/2022	N/A	N/A	**17.6**	N/A

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Chemical Oxygen Demand, mg/L (CAS NO - COD)	4/18/2023	6.65	< 5	23	15
	4/18/2023	< 5	N/A	N/A	N/A
	10/26/2023	N/A	< 5	27	15.9
	10/26/2023	N/A	N/A	N/A	13.3
	4/19/2024	N/A	< 5	24.2	6.45
	4/19/2024	N/A	N/A	N/A	6.12
	10/8/2024	N/A	< 5	36.7	15
	10/8/2024	N/A	N/A	34	N/A
	4/8/2025	N/A	8.62	53.8	14.3
	4/8/2025	N/A	16.6	N/A	N/A
	10/7/2025	N/A	< 5	25	6.83
	10/7/2025	N/A	< 5	N/A	N/A
Chloride, mg/L (CAS NO - 16887-00-6)	2/27/1997	N/A	< 5	N/A	N/A
	4/7/1998	N/A	< 5	N/A	N/A
	10/16/1998	N/A	< 5	N/A	N/A
	4/16/1999	N/A	< 5	N/A	N/A
	10/7/1999	N/A	< 5	N/A	N/A
	4/5/2000	24	< 10	N/A	N/A
	10/12/2000	34	< 10	N/A	N/A
	3/27/2001	38	< 10	N/A	N/A
	10/3/2001	51	< 10	N/A	N/A
	4/23/2002	54	< 10	N/A	N/A
	10/3/2002	52	< 10	N/A	N/A
	4/17/2003	58.9	< 5	N/A	N/A
	10/15/2003	52.3	< 5	N/A	N/A
	4/15/2004	55.9	< 5	N/A	N/A
	10/4/2004	66.6	20.5	N/A	N/A
	4/5/2005	55	< 5	N/A	N/A
	10/10/2005	19.4	N/A	N/A	N/A
	4/18/2006	58.4	N/A	N/A	N/A
	4/1/2008	N/A	< 5	N/A	N/A
	10/24/2008	N/A	< 5	N/A	N/A
	4/29/2010	N/A	< 5	N/A	N/A
	10/26/2010	29.1	< 5	N/A	N/A
	4/19/2011	18.4	< 5	N/A	N/A
	10/4/2011	12.6	< 5	N/A	N/A
	4/17/2012	12	< 10	N/A	N/A
	9/12/2012	10.2	< 5	N/A	N/A
	4/3/2013	8.61	N/A	N/A	N/A
	10/17/2013	8.48	N/A	N/A	N/A
	4/29/2014	10.1	N/A	N/A	N/A
	10/31/2014	9.95	N/A	N/A	N/A
	4/8/2015	10.2	N/A	N/A	N/A
	10/27/2015	10.2	N/A	N/A	N/A
	10/3/2016	8.07	N/A	N/A	N/A
	4/11/2017	7.45	11.8	26.2	55
	7/17/2017	N/A	8.25	31.2	68.4
	10/26/2017	7.64	4.8	29.1	65.6
	12/28/2017	N/A	5.11	25.3	52.5
	10/3/2018	N/A	3.62	32	42.7
	4/9/2019	8.82	3.09	25.9	32.5
	10/8/2019	9.92	4.12	56.9	42.5
	7/1/2020	9.52	4.27*	48.4	48
	7/1/2020	N/A	N/A	47.5	N/A
	10/15/2020	10.2	4.53*	93.2	67.8
	10/15/2020	N/A	5.45	N/A	N/A
	5/7/2021	9.62	5.71	100	58.4
	5/7/2021	9.8	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Chloride, mg/L (CAS NO - 16887-00-6)	10/26/2021	**13.8**	**6.54**	**86.4**	**61.8**
	10/26/2021	N/A	N/A	N/A	**64.5**
	4/6/2022	**14.9**	4.17*	**97.3**	**49.2**
	4/6/2022	N/A	3.98*	N/A	N/A
	10/19/2022	**13.6**	**5.59**	**96.4**	**36**
	10/19/2022	N/A	N/A	**91.8**	N/A
	4/18/2023	**17.8**	**13.6**	**113**	**40.3**
	4/18/2023	**18.1**	N/A	N/A	N/A
	10/26/2023	N/A	**8.35**	**108**	**67.7**
	10/26/2023	N/A	N/A	N/A	**60.8**
	4/19/2024	N/A	**13.8**	**129**	**50.3**
	4/19/2024	N/A	N/A	N/A	**49.9**
	10/8/2024	N/A	**17.5**	**121**	**37.1**
	10/8/2024	N/A	N/A	**119**	N/A
	4/8/2025	N/A	**18.2**	**110**	**36.9**
	4/8/2025	N/A	**17.2**	N/A	N/A
	10/7/2025	N/A	**23.7**	**113**	**37.7**
	10/7/2025	N/A	**21.5**	N/A	N/A
Iron, Dissolved, mg/L (CAS NO - D7439-89-6)	2/27/1997	N/A	**0.47**	N/A	N/A
	4/7/1998	N/A	< 0.1	N/A	N/A
	10/16/1998	N/A	< 0.1	N/A	N/A
	4/16/1999	N/A	< 0.1	N/A	N/A
	10/7/1999	N/A	< 0.1	N/A	N/A
	4/5/2000	**0.267**	< 0.03	N/A	N/A
	10/12/2000	< 0.03	< 0.03	N/A	N/A
	3/27/2001	**0.105**	< 0.03	N/A	N/A
	10/3/2001	< 0.03	< 0.03	N/A	N/A
	4/23/2002	< 0.03	< 0.03	N/A	N/A
	10/3/2002	< 0.03	< 0.03	N/A	N/A
	4/17/2003	< 0.1	< 0.1	N/A	N/A
	10/15/2003	< 0.1	< 0.1	N/A	N/A
	4/15/2004	< 0.1	< 0.1	N/A	N/A
	10/4/2004	< 0.1	< 0.1	N/A	N/A
	4/5/2005	< 0.1	< 0.1	N/A	N/A
	10/10/2005	< 0.1	N/A	N/A	N/A
	4/18/2006	< 0.1	N/A	N/A	N/A
	4/1/2008	N/A	< 0.1	N/A	N/A
	10/24/2008	N/A	< 0.1	N/A	N/A
	4/29/2010	N/A	< 0.1	N/A	N/A
	10/26/2010	< 0.1	< 0.1	N/A	N/A
	4/19/2011	< 0.1	< 0.1	N/A	N/A
	10/4/2011	< 0.1	< 0.1	N/A	N/A
	4/17/2012	**2.09**	**29.2**	N/A	N/A
	9/12/2012	< 0.1	< 0.1	N/A	N/A
	4/3/2013	**0.516**	N/A	N/A	N/A
	10/17/2013	**0.0611**	N/A	N/A	N/A
	4/29/2014	< 0.1	N/A	N/A	N/A
	10/31/2014	**0.528**	N/A	N/A	N/A
	4/8/2015	**0.361**	N/A	N/A	N/A
	10/27/2015	**1.6**	N/A	N/A	N/A
	10/3/2016	**0.236**	N/A	N/A	N/A
	4/11/2017	< 0.5	**1.16**	< 0.5	**3.84**
	7/17/2017	N/A	**0.0569**	**0.0816**	**0.0491**
	10/26/2017	< 0.5	< 0.5	< 0.5	< 0.5
	12/28/2017	N/A	< 0.5	< 0.5	< 0.5
	10/3/2018	N/A	< 0.5	**0.147**	< 0.5
	4/9/2019	< 0.5	< 0.5	< 0.5	< 0.5
	10/8/2019	< 0.5	< 0.5	< 0.5	**0.149**

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Iron, Dissolved, mg/L (CAS NO - D7439-89-6)	7/1/2020	< 0.5	< 0.5	< 0.5	< 0.5
	7/1/2020	N/A	N/A	< 0.5	N/A
	10/15/2020	< 0.5	< 0.5	< 0.5	< 0.5
	10/15/2020	N/A	< 0.5	N/A	N/A
	5/7/2021	< 0.5	< 0.5	< 0.5	0.267*
	5/7/2021	< 0.5	N/A	N/A	N/A
	10/26/2021	< 0.5	< 0.5	< 0.5	**0.863**
	10/26/2021	N/A	N/A	N/A	**0.843**
	4/6/2022	< 0.5	< 0.5	< 0.5	< 0.5
	4/6/2022	N/A	< 0.5	N/A	N/A
	10/19/2022	< 0.5	< 0.5	< 0.5	0.313*
	10/19/2022	N/A	N/A	< 0.5	N/A
	4/18/2023	0.0965*	< 0.5	< 0.5	**0.58**
	4/18/2023	< 0.5	N/A	N/A	N/A
	10/26/2023	N/A	< 0.5	< 0.5	**0.563**
	10/26/2023	N/A	N/A	N/A	0.455*
	4/19/2024	N/A	< 0.1	0.0819*	**0.598**
	4/19/2024	N/A	N/A	N/A	**0.568**
	10/8/2024	N/A	< 0.5	0.093*	**0.831**
	10/8/2024	N/A	N/A	0.101*	N/A
	4/8/2025	N/A	< 0.5	0.325*	0.4*
	4/8/2025	N/A	< 0.5	N/A	N/A
	10/7/2025	N/A	< 0.5	0.345*	**0.611**
	10/7/2025	N/A	< 0.5	N/A	N/A
pH, S.U. (CAS NO - PH)	2/27/1997	N/A	**6.89**	N/A	N/A
	4/7/1998	N/A	**7.32**	N/A	N/A
	10/16/1998	N/A	**7.57**	N/A	N/A
	4/16/1999	N/A	**7.88**	N/A	N/A
	10/7/1999	N/A	**7.1**	N/A	N/A
	4/5/2000	**6.93**	**6.81**	N/A	N/A
	10/12/2000	**6.95**	**6.43**	N/A	N/A
	3/27/2001	**7.85**	**7.37**	N/A	N/A
	10/3/2001	**7.86**	**8.18**	N/A	N/A
	4/23/2002	**7.34**	**6.97**	N/A	N/A
	10/3/2002	**7.32**	**6.83**	N/A	N/A
	4/17/2003	**6.89**	**6.75**	N/A	N/A
	10/15/2003	**6.78**	**6.73**	N/A	N/A
	4/15/2004	**7.35**	**7.26**	N/A	N/A
	10/4/2004	**7.42**	**7.41**	N/A	N/A
	4/5/2005	**7.7**	**7.57**	N/A	N/A
	10/10/2005	**7.51**	**7.5**	N/A	N/A
	4/18/2006	**7.23**	N/A	N/A	N/A
	4/1/2008	N/A	**7.5**	N/A	N/A
	10/24/2008	N/A	**7.21**	N/A	N/A
	10/26/2010	**7.53**	**7.61**	N/A	N/A
	4/19/2011	**7.46**	**7.35**	N/A	N/A
	10/4/2011	**7.31**	**7**	N/A	N/A
	4/17/2012	**7.4**	**7.3**	N/A	N/A
	9/12/2012	**7.65**	**7.25**	N/A	N/A
	4/3/2013	**7.35**	N/A	N/A	N/A
	10/17/2013	**8.28**	N/A	N/A	N/A
	4/29/2014	**8**	N/A	N/A	N/A
	10/31/2014	**8.8**	N/A	N/A	N/A
	4/8/2015	**7.93**	N/A	N/A	N/A
	10/27/2015	**7.85**	N/A	N/A	N/A
	10/3/2016	**9.01**	N/A	N/A	N/A
	4/11/2017	N/A	**7.6**	**7.28**	**7.27**
	7/17/2017	N/A	**7.33**	**7.24**	**7.45**
	10/26/2017	**7.56**	**7.64**	**7.71**	**7.86**

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
pH, S.U. (CAS NO - PH)	10/3/2018	N/A	7.21	7.28	6.74
	4/9/2019	7.34	7.26	7.29	6.84
	10/8/2019	7.3	7.27	7.18	6.83
	7/1/2020	7.19	7.2	7.23	6.81
	10/15/2020	7.3	7.32	7.14	6.76
	5/7/2021	7.01	6.97	7.08	6.75
	10/26/2021	7.02	7.21	7.06	6.72
	4/6/2022	6.92	7.1	7.05	6.67
	10/19/2022	7.06	7.13	7.15	6.81
	4/18/2023	7.08	7.07	7.02	6.72
	10/26/2023	N/A	7.08	7.23	6.8
	4/19/2024	N/A	7.16	7.11	6.77
	10/8/2024	N/A	7.06	7.04	6.76
	4/8/2025	N/A	7.06	7.05	6.75
	10/7/2025	N/A	7.17	7.03	6.81
Specific Conductance, umhos/cm (CAS NO - SPECCON)	4/7/1998	N/A	880	N/A	N/A
	10/16/1998	N/A	780	N/A	N/A
	4/16/1999	N/A	1010	N/A	N/A
	10/7/1999	N/A	480	N/A	N/A
	4/5/2000	1060	1630	N/A	N/A
	10/12/2000	1050	750	N/A	N/A
	3/27/2001	1920	1640	N/A	N/A
	10/3/2001	1800	790	N/A	N/A
	4/23/2002	1287	810	N/A	N/A
	10/3/2002	988	688	N/A	N/A
	4/17/2003	1209	845	N/A	N/A
	10/15/2003	872	513	N/A	N/A
	4/15/2004	1296	766	N/A	N/A
	10/4/2004	815	1338	N/A	N/A
	4/5/2005	1320	795	N/A	N/A
	10/10/2005	912	1300	N/A	N/A
	4/18/2006	1253	N/A	N/A	N/A
	4/1/2008	N/A	751	N/A	N/A
	10/24/2008	N/A	332	N/A	N/A
	4/29/2010	N/A	1280	N/A	N/A
	10/26/2010	1244	862	N/A	N/A
	4/19/2011	807	1283	N/A	N/A
	10/4/2011	2018	2750	N/A	N/A
	4/17/2012	875	1175	N/A	N/A
	9/12/2012	1020	908	N/A	N/A
	4/3/2013	1025	N/A	N/A	N/A
	10/17/2013	1008	N/A	N/A	N/A
	4/29/2014	1000	N/A	N/A	N/A
	10/31/2014	905	N/A	N/A	N/A
	4/8/2015	929	N/A	N/A	N/A
	10/27/2015	802	N/A	N/A	N/A
	10/3/2016	839	N/A	N/A	N/A
	4/11/2017	N/A	622	1408	1465
	7/17/2017	N/A	789	727	1732
	10/26/2017	712	697	631	1292
	10/3/2018	N/A	735	721	1911
	4/9/2019	924.2	682.6	588.7	1596.2
	10/8/2019	1064.7	729.2	870.5	1889.9
	7/1/2020	1032.6	694.1	729.9	1787.1
	10/15/2020	1027.6	692.5	909.5	1791.5
	5/7/2021	1076.6	732.9	968	1804.1
	10/26/2021	1105.7	772	920.8	1827.5
	4/6/2022	1031	681	868	1617
	10/19/2022	1150	795	1030	1742

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Specific Conductance, umhos/cm (CAS NO - SPECCON)	4/18/2023	**1141**	**839**	**1047.7**	**1716.6**
	10/26/2023	N/A	**645.9**	**926**	**1557.2**
	4/19/2024	N/A	**847.9**	**1196.3**	**1895.1**
	10/8/2024	N/A	**923.3**	**1119.6**	**1690.9**
	4/8/2025	N/A	**851.2**	**1133**	**1670.7**
	10/7/2025	N/A	**917.4**	**1153.4**	**1659**
Total Organic Halogens, mg/L (CAS NO - TOH)	4/7/1998	N/A	< 0.01	N/A	N/A
	10/16/1998	N/A	< 0.01	N/A	N/A
	4/16/1999	N/A	< 0.01	N/A	N/A
	10/7/1999	N/A	< 0.01	N/A	N/A
	10/12/2000	< 0.01	**0.02**	N/A	N/A
	10/3/2001	< 0.01	< 0.01	N/A	N/A
	10/3/2002	< 0.01	**0.07**	N/A	N/A
	10/15/2003	< 0.01	< 0.01	N/A	N/A
	10/4/2004	< 0.01	< 0.01	N/A	N/A
	10/10/2005	< 0.01	N/A	N/A	N/A
	10/24/2008	N/A	< 0.01	N/A	N/A
	10/26/2010	< 0.01	**0.0131**	N/A	N/A
	10/4/2011	< 0.01	< 0.01	N/A	N/A
	9/12/2012	**0.0182**	**0.0117**	N/A	N/A
	10/17/2013	< 0.03	N/A	N/A	N/A
	10/31/2014	< 0.03	N/A	N/A	N/A
	10/27/2015	< 0.03	N/A	N/A	N/A
	10/3/2016	< 0.03	N/A	N/A	N/A
	7/17/2017	N/A	< 0.03	< 0.03	**0.0666**
	10/26/2017	< 0.03	**0.0182**	**0.141**	**0.325**
	12/28/2017	N/A	< 0.03	**0.0263**	**0.0567**
	10/3/2018	N/A	**0.013**	**0.0189**	**0.0236**
	10/8/2019	< 0.01	< 0.01	**0.019**	**0.031**
	10/15/2020	0.0392*	0.0207*	**0.119**	**0.0702**
	10/15/2020	N/A	0.0315*	N/A	N/A
	10/26/2021	0.025*	0.0243*	**0.0425**	**0.102**
	10/26/2021	N/A	N/A	N/A	**0.0559**
	10/19/2022	**0.563**	0.026*	**0.122**	**0.0959**
	10/19/2022	N/A	N/A	**0.143**	N/A
	10/26/2023	N/A	< 0.04	**0.136**	**0.0745**
	10/26/2023	N/A	N/A	N/A	**0.0836**
	10/8/2024	N/A	< 0.04	**0.0956**	**0.137**
	10/8/2024	N/A	N/A	**0.285**	N/A
	10/7/2025	N/A	0.0164*	**0.0649**	0.0239*
	10/7/2025	N/A	0.0101*	N/A	N/A

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Summary of Groundwater Chemistry
Council Bluffs Construction and Demolition Landfill - 78-SDP-04-89

Other Constituents	Sample Date	MW-3 UPG	MW-2R DNG	MW-12 DNG	MW-13 DNG
Total Phenols, mg/L (CAS NO - TP)	4/7/1998	N/A	< 0.02	N/A	N/A
	10/16/1998	N/A	< 0.02	N/A	N/A
	4/16/1999	N/A	< 0.02	N/A	N/A
	10/7/1999	N/A	< 0.02	N/A	N/A
	10/12/2000	< 0.1	< 0.1	N/A	N/A
	10/3/2001	< 0.1	< 0.1	N/A	N/A
	10/3/2002	< 0.1	< 0.1	N/A	N/A
	10/15/2003	< 0.02	< 0.02	N/A	N/A
	10/4/2004	< 0.02	< 0.02	N/A	N/A
	10/10/2005	< 0.02	N/A	N/A	N/A
	10/24/2008	N/A	< 0.02	N/A	N/A
	10/26/2010	< 0.02	< 0.02	N/A	N/A
	10/4/2011	< 0.02	< 0.018	N/A	N/A
	9/12/2012	< 0.02	< 0.02	N/A	N/A
	10/17/2013	**0.0078**	N/A	N/A	N/A
	10/31/2014	< 0.0192	N/A	N/A	N/A
	10/27/2015	< 0.0184	N/A	N/A	N/A
	10/3/2016	**0.0125**	N/A	N/A	N/A
	7/17/2017	N/A	< 0.02	< 0.02	< 0.02
	10/26/2017	< 0.0192	< 0.0188	< 0.0192	< 0.0184
	12/28/2017	N/A	< 0.0192	< 0.0196	< 0.0192
	10/3/2018	N/A	< 0.0196	< 0.0196	< 0.0192
	10/8/2019	< 0.02	< 0.02	< 0.02	< 0.0192
	10/15/2020	< 0.02	< 0.02	< 0.02	< 0.02
	10/15/2020	N/A	< 0.02	N/A	N/A
	10/26/2021	< 0.0196	< 0.02	< 0.0188	< 0.0184
	10/26/2021	N/A	N/A	N/A	< 0.0184
	10/19/2022	< 0.02	< 0.02	< 0.02	< 0.02
	10/19/2022	N/A	N/A	< 0.02	N/A
	10/8/2024	N/A	< 0.02	< 0.02	< 0.02
	10/8/2024	N/A	N/A	< 0.02	N/A
	10/7/2025	N/A	< 0.02	< 0.02	< 0.02
	10/7/2025	N/A	< 0.022	N/A	N/A

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

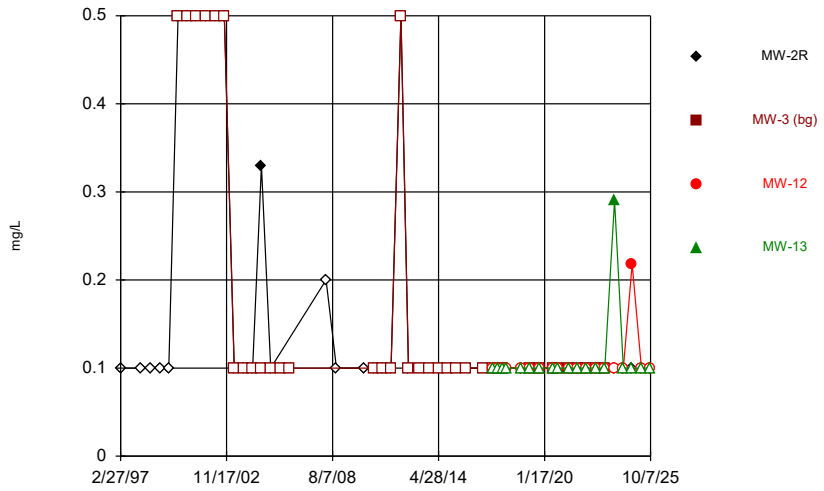
Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.

Appendix D

2025 Statistical Output

Sanitas™ v.10.1.02 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Ammonia as N Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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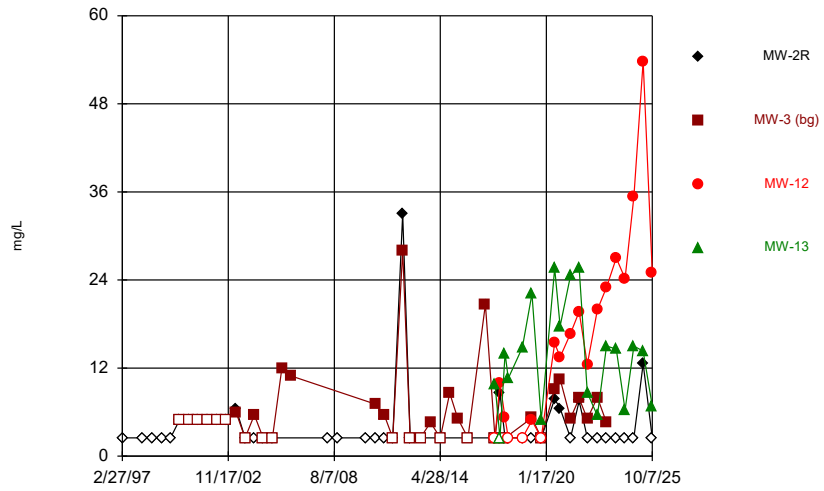
Hollow symbols indicate censored values.

Time Series



Constituent: Chemical Oxygen Demand Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Seri
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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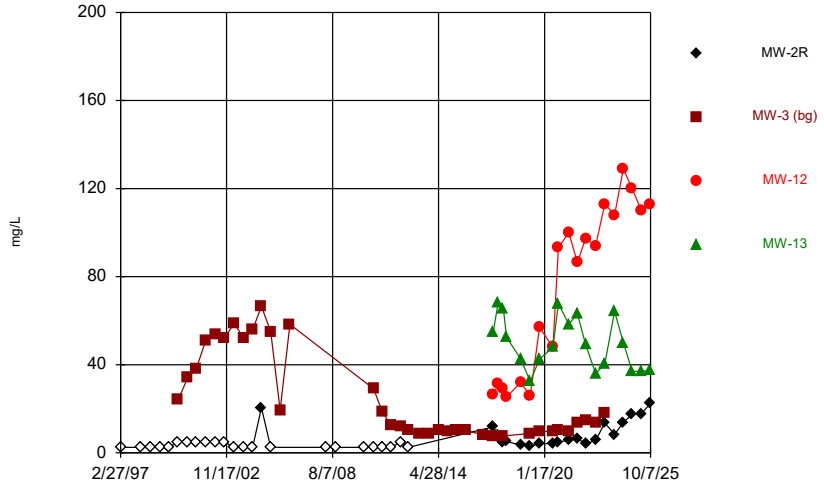
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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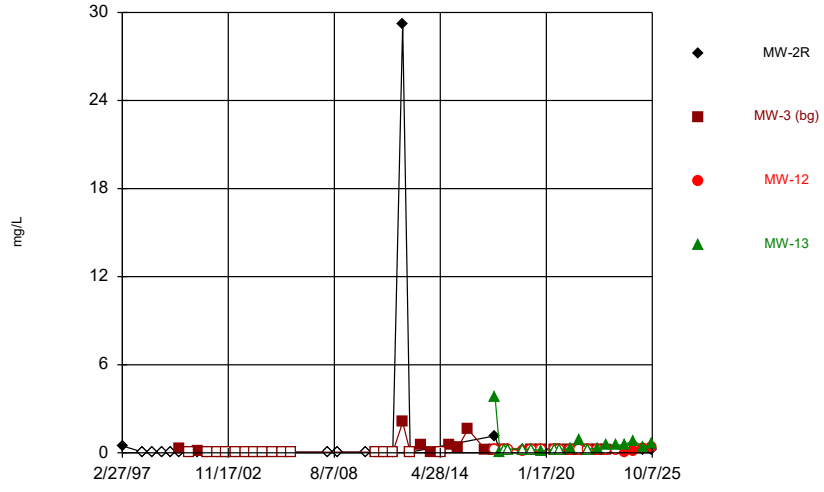
Hollow symbols indicate censored values.

Time Series



Constituent: Iron, Dissolved Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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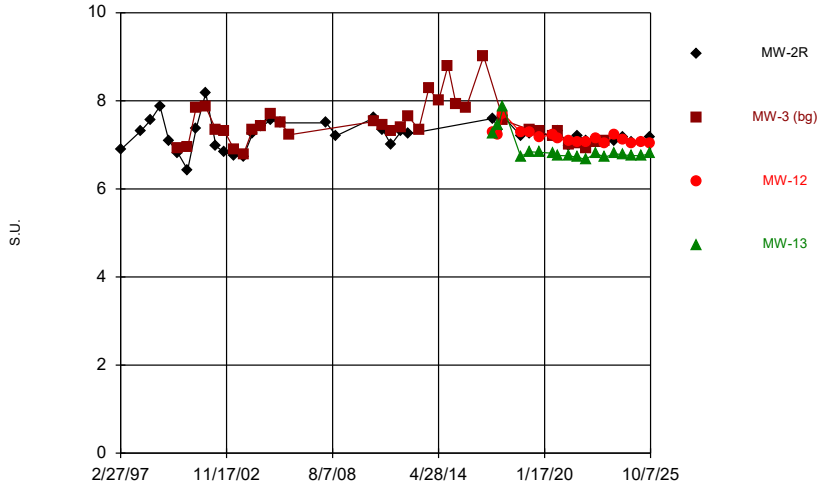
Time Series



Constituent: pH Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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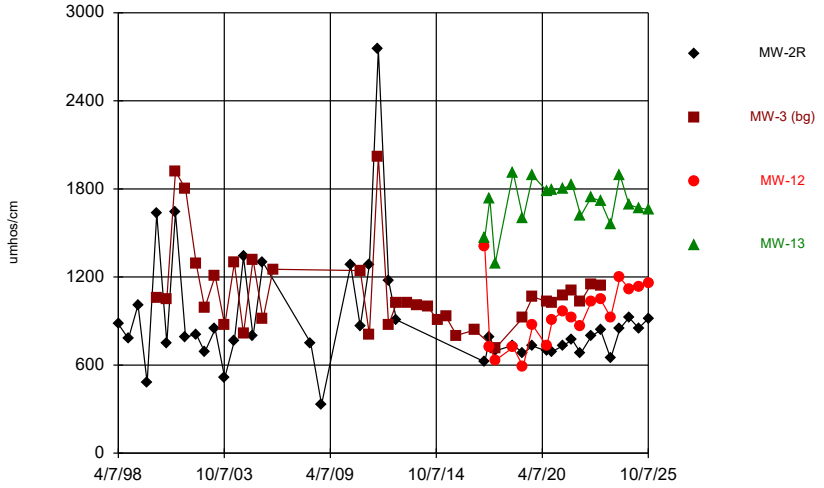
Time Series



Constituent: Specific Conductance Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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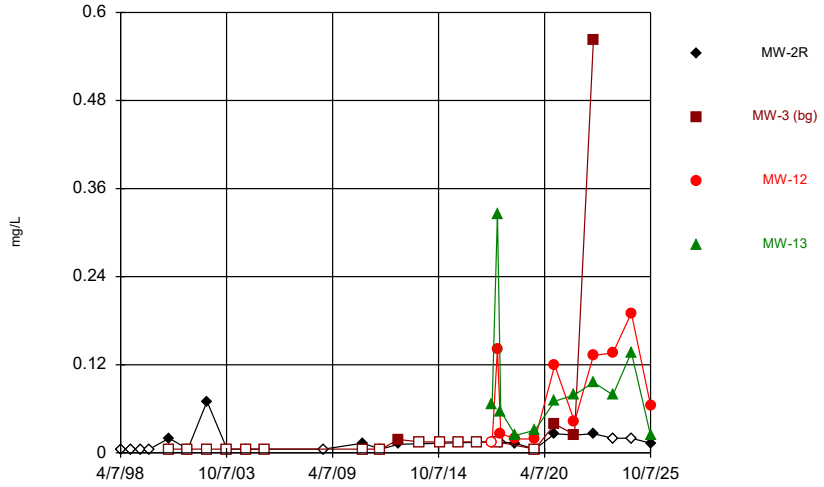
Hollow symbols indicate censored values.

Time Series



Constituent: Total Organic Halogens Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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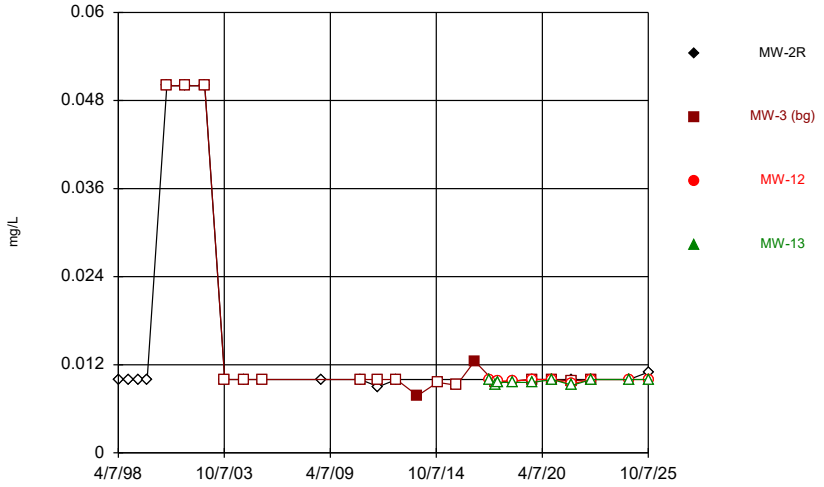
Hollow symbols indicate censored values.

Time Series



Constituent: Total Phenols Analysis Run 11/14/2025 6:21 PM View: 2025_AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

Spring Control Limit

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas Printed 11/17/2025, 12:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs
Chemical Oxygen Demand (mg/L)	MW-2R	16.73	n/a	4/8/2025	12.61	No	36	MW-3	6.313	5.21	47.22
Chemical Oxygen Demand (mg/L)	**MW-12**	**16.73**	**n/a**	**4/8/2025**	**53.8**	**Yes**	**36**	**MW-3**	**6.313**	**5.21**	**47.22**
Chemical Oxygen Demand (mg/L)	MW-13	16.73	n/a	4/8/2025	14.3	No	36	MW-3	6.313	5.21	47.22
Chloride (mg/L)	MW-2R	64.23	n/a	4/8/2025	17.7	No	36	MW-3	24.75	19.74	0
Chloride (mg/L)	**MW-12**	**64.23**	**n/a**	**4/8/2025**	**110**	**Yes**	**36**	**MW-3**	**24.75**	**19.74**	**0**
Chloride (mg/L)	MW-13	64.23	n/a	4/8/2025	36.9	No	36	MW-3	24.75	19.74	0
Iron, Dissolved (mg/L)	MW-12	1.09	n/a	4/8/2025	0.325J	No	36	MW-3	0.2527	0.4186	72.22
Iron, Dissolved (mg/L)	MW-13	1.09	n/a	4/8/2025	0.4J	No	36	MW-3	0.2527	0.4186	72.22
pH (S.U.)	MW-2R	8.474	6.468	4/8/2025	7.06	No	35	MW-3	7.471	0.5015	0
pH (S.U.)	MW-12	8.474	6.468	4/8/2025	7.05	No	35	MW-3	7.471	0.5015	0
pH (S.U.)	MW-13	8.474	6.468	4/8/2025	6.75	No	35	MW-3	7.471	0.5015	0
Specific Conductance (umhos/cm)	MW-2R	1691	n/a	4/8/2025	851.2	No	35	MW-3	1101	295.1	0
Specific Conductance (umhos/cm)	MW-12	1691	n/a	4/8/2025	1133	No	35	MW-3	1101	295.1	0
Specific Conductance (umhos/cm)	MW-13	1691	n/a	4/8/2025	1671	No	35	MW-3	1101	295.1	0

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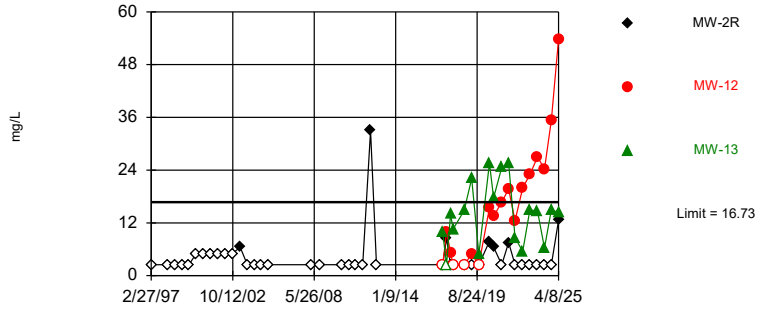
Hollow symbols indicate censored values.

Exceeds Limit: MW-12

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.313, Std. Dev.=5.21, n=36, 47.22% NDs. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 12:28 PM View: 2025_AWQR-Control_
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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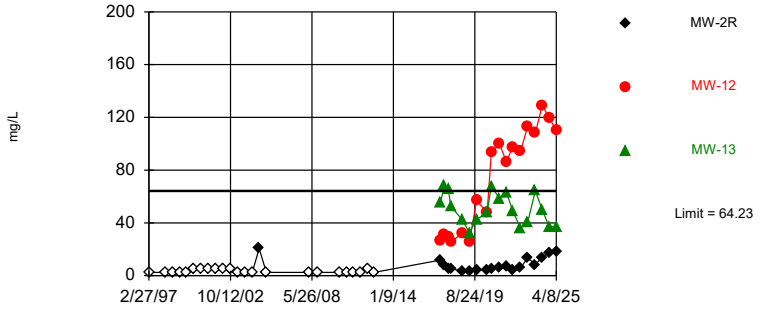
Hollow symbols indicate censored values.

Exceeds Limit: MW-12

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=24.75, Std. Dev.=19.74, n=36. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Chloride Analysis Run 11/17/2025 12:28 PM View: 2025_AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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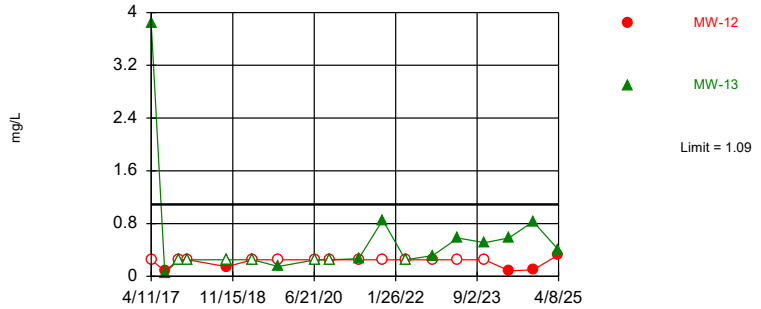
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.2527, Std. Dev.=0.4186, n=36, 72.22% NDs (user selected parametric test despite non-detects). Normality test was disabled. Comparing 2 points to limit. Assumes 11 future values. Kappa overridden to 2.

Constituent: Iron, Dissolved Analysis Run 11/17/2025 12:28 PM View: 2025_AWQR-Control_Limits-Sprin
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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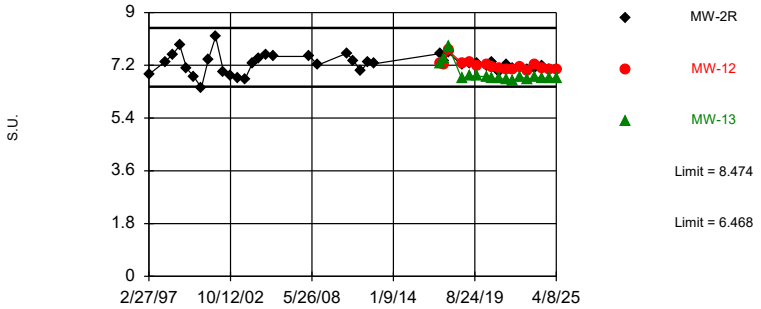
Within Limits

Prediction Limit

Interwell Parametric



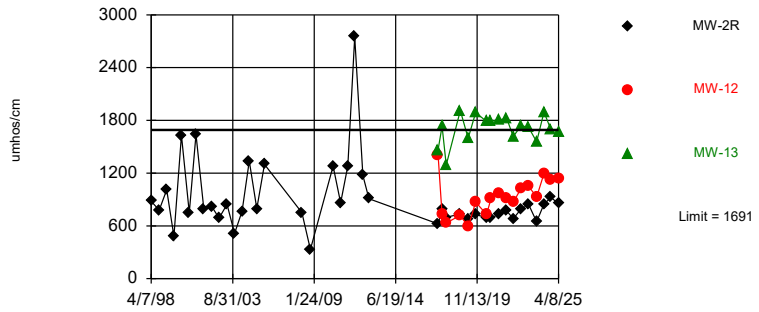
Background Data Summary: Mean=7.471, Std. Dev.=0.5015, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: pH Analysis Run 11/17/2025 12:28 PM View: 2025_AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1101, Std. Dev.=295.1, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Specific Conductance Analysis Run 11/17/2025 12:28 PM View: 2025_AWQR-Control_Limits

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

Fall Control Limit

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas Printed 11/17/2025, 12:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs
Chemical Oxygen Demand (mg/L)	**MW-12**	**16.73**	**n/a**	**10/7/2025**	**25**	**Yes**	**36**	**MW-3**	**6.313**	**5.21**	**47.22**
Chemical Oxygen Demand (mg/L)	MW-13	16.73	n/a	10/7/2025	6.83	No	36	MW-3	6.313	5.21	47.22
Chloride (mg/L)	MW-2R	64.23	n/a	10/7/2025	22.6	No	36	MW-3	24.75	19.74	0
Chloride (mg/L)	**MW-12**	**64.23**	**n/a**	**10/7/2025**	**113**	**Yes**	**36**	**MW-3**	**24.75**	**19.74**	**0**
Chloride (mg/L)	MW-13	64.23	n/a	10/7/2025	37.7	No	36	MW-3	24.75	19.74	0
Iron, Dissolved (mg/L)	MW-12	1.09	n/a	10/7/2025	0.345J	No	36	MW-3	0.2527	0.4186	72.22
Iron, Dissolved (mg/L)	MW-13	1.09	n/a	10/7/2025	0.611	No	36	MW-3	0.2527	0.4186	72.22
pH (S.U.)	MW-2R	8.474	6.468	10/7/2025	7.17	No	35	MW-3	7.471	0.5015	0
pH (S.U.)	MW-12	8.474	6.468	10/7/2025	7.03	No	35	MW-3	7.471	0.5015	0
pH (S.U.)	MW-13	8.474	6.468	10/7/2025	6.81	No	35	MW-3	7.471	0.5015	0
Specific Conductance (umhos/cm)	MW-2R	1691	n/a	10/7/2025	917.4	No	35	MW-3	1101	295.1	0
Specific Conductance (umhos/cm)	MW-12	1691	n/a	10/7/2025	1153	No	35	MW-3	1101	295.1	0
Specific Conductance (umhos/cm)	MW-13	1691	n/a	10/7/2025	1659	No	35	MW-3	1101	295.1	0
Total Organic Halogens (mg/L)	MW-2R	0.303	n/a	10/7/2025	0.01325J	No	18	MW-3	0.04252	0.1302	77.78
Total Organic Halogens (mg/L)	MW-12	0.303	n/a	10/7/2025	0.0649	No	18	MW-3	0.04252	0.1302	77.78
Total Organic Halogens (mg/L)	MW-13	0.303	n/a	10/7/2025	0.0239J	No	18	MW-3	0.04252	0.1302	77.78

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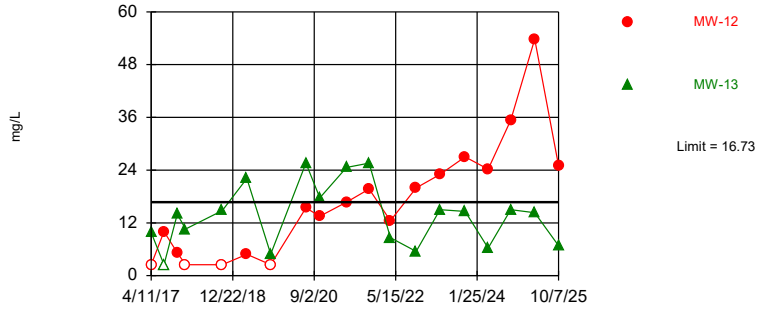
Hollow symbols indicate censored values.

Exceeds Limit: MW-12

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.313, Std. Dev.=5.21, n=36, 47.22% NDs. Normality test was disabled. Comparing 2 points to limit. Assumes 11 future values. Kappa overridden to 2.

Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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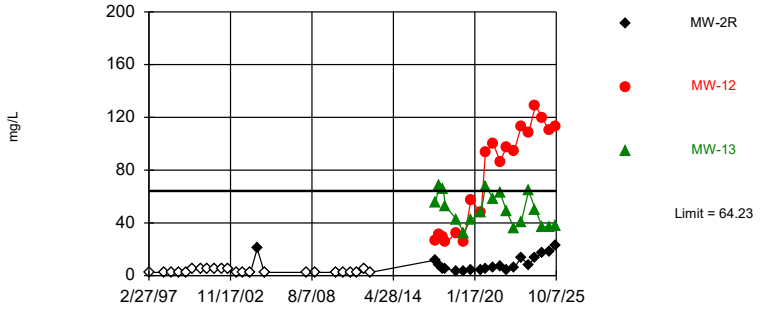
Hollow symbols indicate censored values.

Exceeds Limit: MW-12

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=24.75, Std. Dev.=19.74, n=36. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Chloride Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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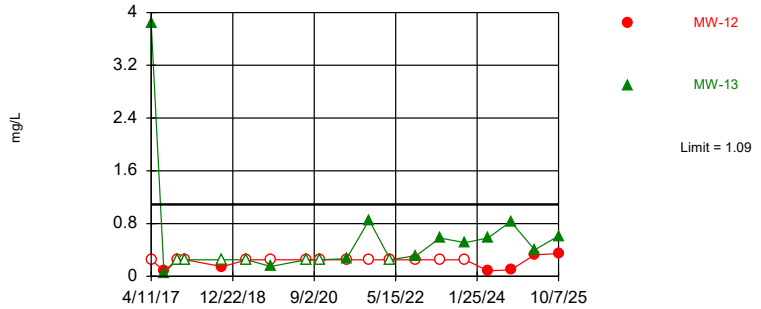
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.2527, Std. Dev.=0.4186, n=36, 72.22% NDs (user selected parametric test despite non-detects). Normality test was disabled. Comparing 2 points to limit. Assumes 11 future values. Kappa overridden to 2.

Constituent: Iron, Dissolved Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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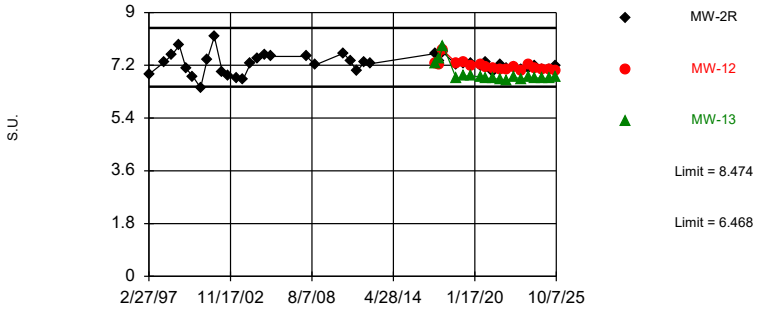
Within Limits

Prediction Limit

Interwell Parametric



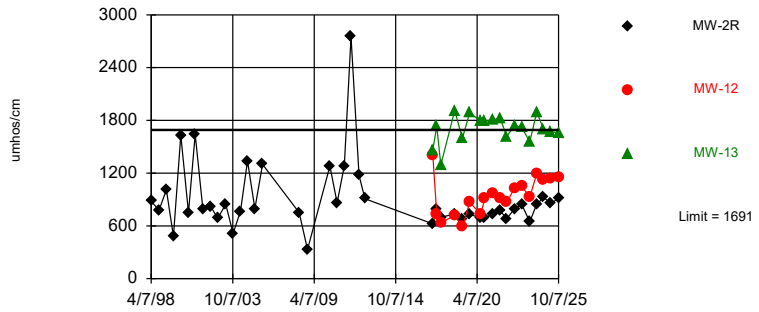
Background Data Summary: Mean=7.471, Std. Dev.=0.5015, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: pH Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1101, Std. Dev.=295.1, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Specific Conductance Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_Limits

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

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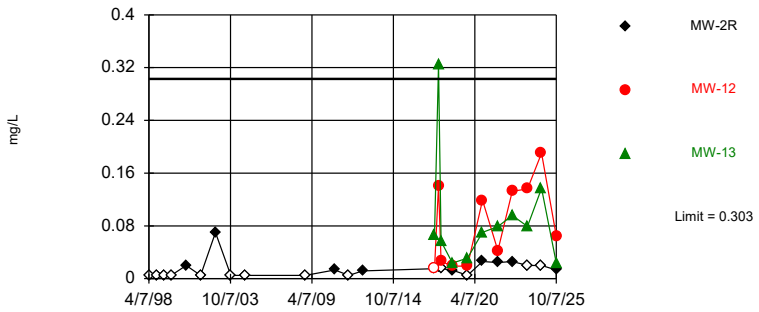
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.04252, Std. Dev.=0.1302, n=18, 77.78% NDs (user selected parametric test despite non-detects). Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Total Organic Halogens Analysis Run 11/17/2025 12:32 PM View: 2025_AWQR-Control_Limi

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CB Sanitas

Trend Test

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS Printed 11/17/2025, 2:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Ammonia as N (mg/L)	MW-12	0	3	21	No	8	87.5	0.01	NP
Ammonia as N (mg/L)	MW-13	0	-1	-21	No	8	87.5	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-2R	0	5	21	No	8	87.5	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-3 (bg)	-0.3866	-4	-21	No	8	12.5	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-12	7.725	20	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-13	0.1856	1	21	No	8	0	0.01	NP
Chloride (mg/L)	**MW-2R**	**5.198**	**26**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Chloride (mg/L)	MW-3 (bg)	2.41	18	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-12	5.378	11	21	No	8	0	0.01	NP
Chloride (mg/L)	MW-13	-1.386	-4	-21	No	8	0	0.01	NP
Iron, Dissolved (mg/L)	MW-3 (bg)	0	-7	-21	No	8	87.5	0.01	NP
Iron, Dissolved (mg/L)	MW-12	0.01247	6	21	No	8	50	0.01	NP
Iron, Dissolved (mg/L)	MW-13	0.1101	16	21	No	8	12.5	0.01	NP
pH (S.U.)	MW-2R	-0.002531	-1	-21	No	8	0	0.01	NP
pH (S.U.)	MW-3 (bg)	-0.08345	-9	-21	No	8	0	0.01	NP
pH (S.U.)	MW-12	-0.01833	-7	-21	No	8	0	0.01	NP
pH (S.U.)	MW-13	0.02089	5	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-2R	56.83	18	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-3 (bg)	30.59	12	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-12	44.3	18	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-13	-23.26	-4	-21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	MW-2R	-0.00002486	-1	-21	No	8	37.5	0.01	NP
Total Organic Halogens (mg/L)	MW-3 (bg)	0.002236	12	21	No	8	62.5	0.01	NP
Total Organic Halogens (mg/L)	MW-12	0.01468	18	21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	MW-13	0.01232	14	21	No	8	0	0.01	NP
Total Phenols (mg/L)	MW-3 (bg)	0.00005007	8	21	No	8	87.5	0.01	NP

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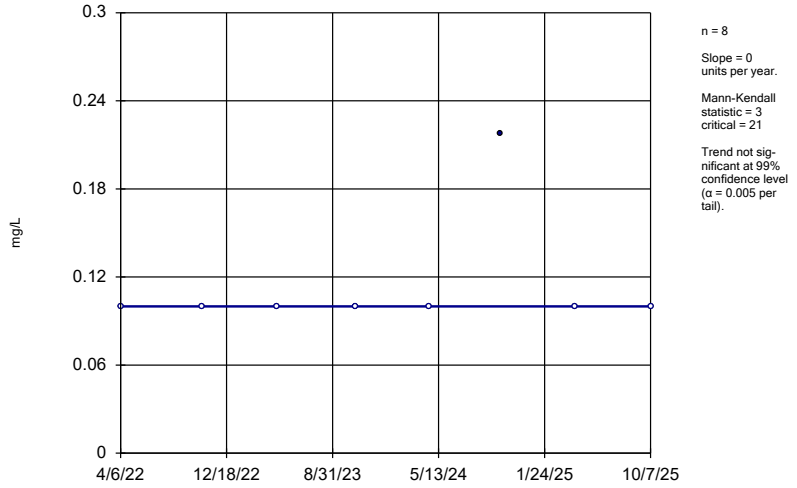
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



Constituent: Ammonia as N Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

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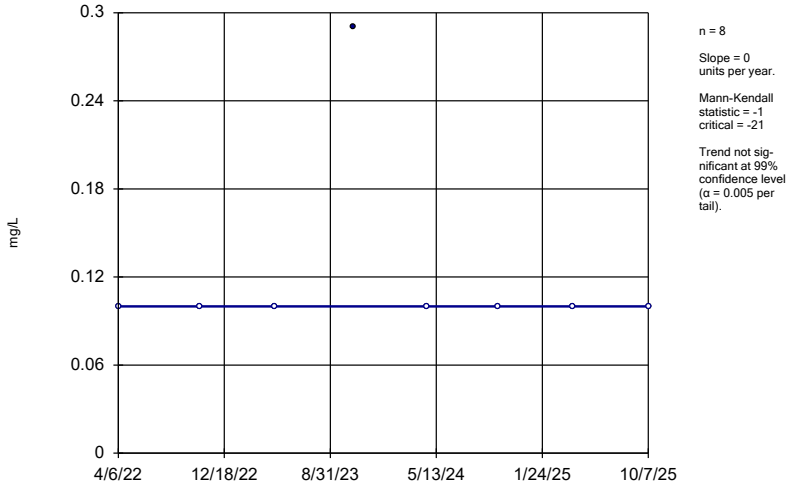
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13



Constituent: Ammonia as N Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

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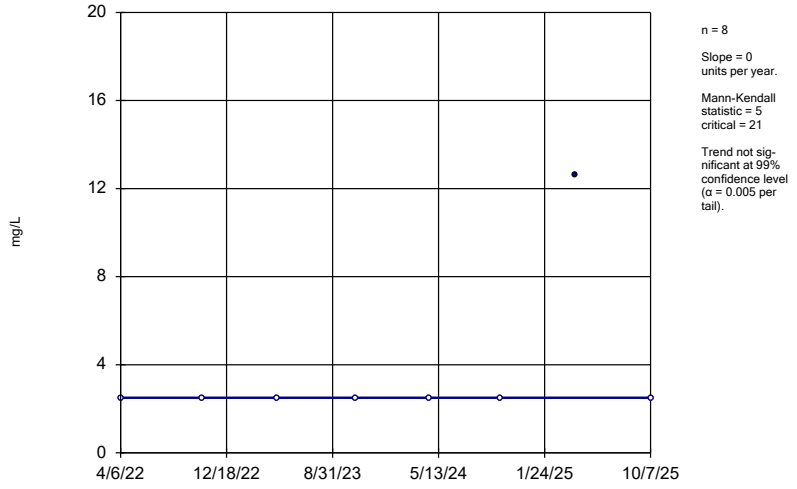
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2R



Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Ken
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

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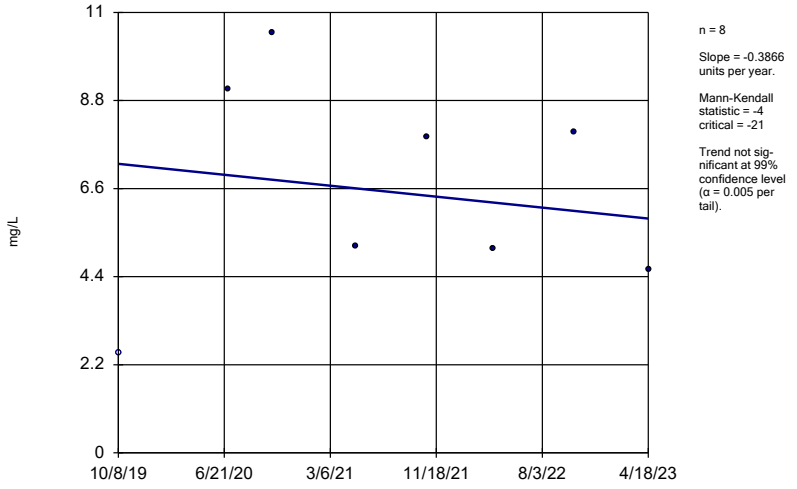
Hollow symbols indicate censored values.

Sen's Slope Estimator

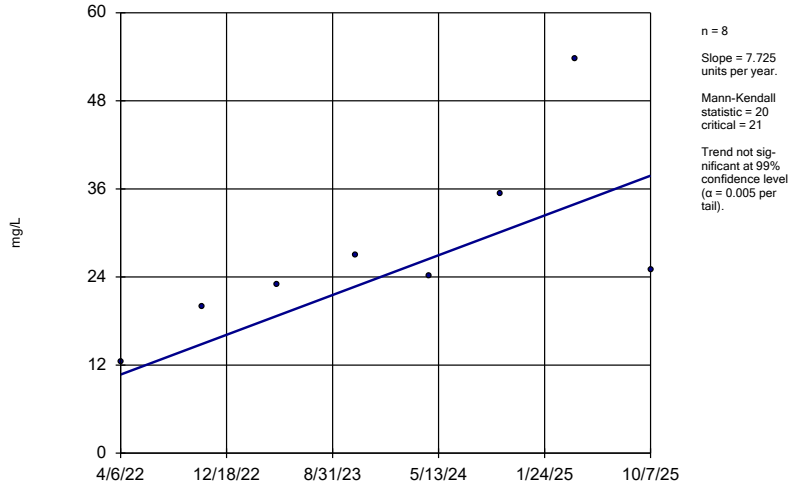
MW-3 (bg)



Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Ken
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

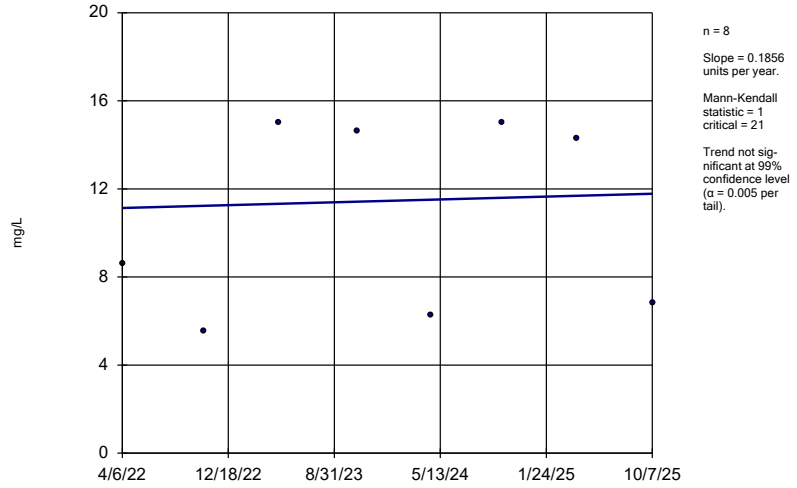
MW-12



Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Ken
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

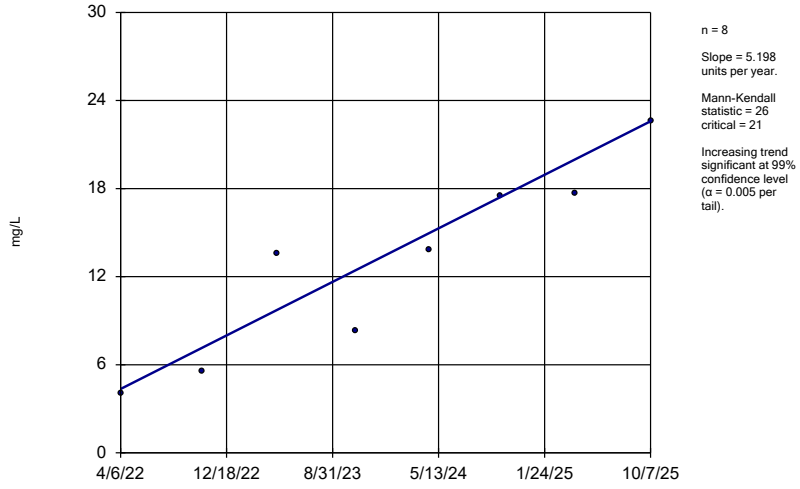
MW-13



Constituent: Chemical Oxygen Demand Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Ken
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

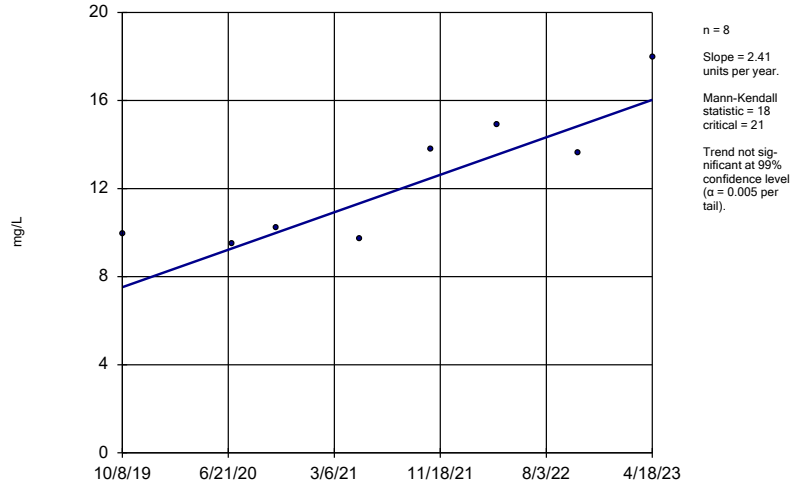
MW-2R



Constituent: Chloride Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

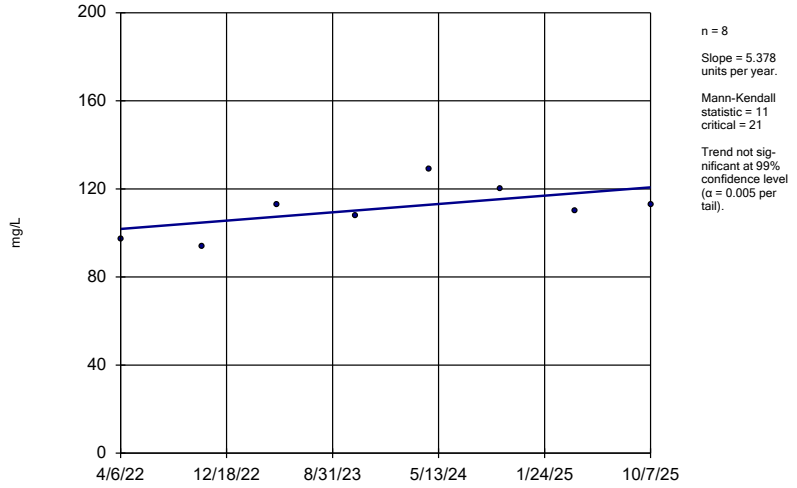
MW-3 (bg)



Constituent: Chloride Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-12



n = 8

Slope = 5.378 units per year.

Mann-Kendall statistic = 11 critical = 21

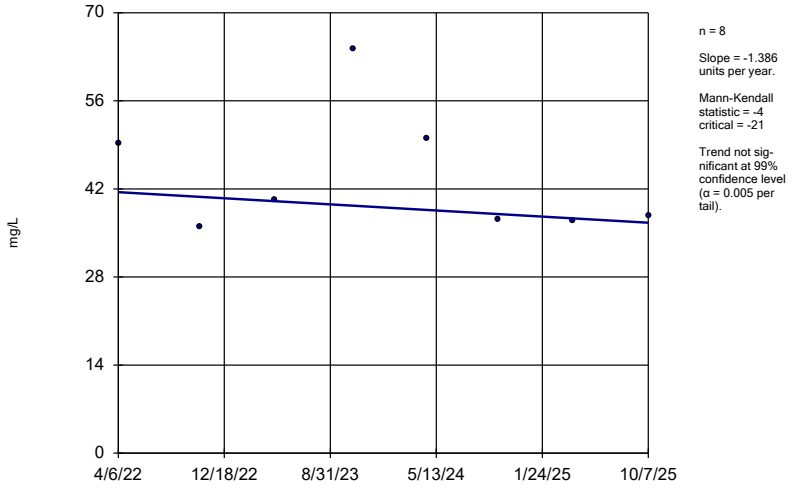
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-13



n = 8

Slope = -1.386 units per year.

Mann-Kendall statistic = -4 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

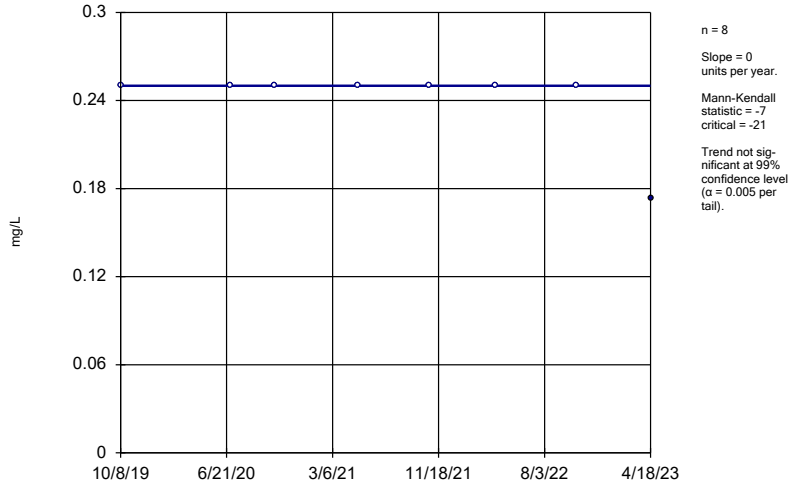
Constituent: Chloride Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -7 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

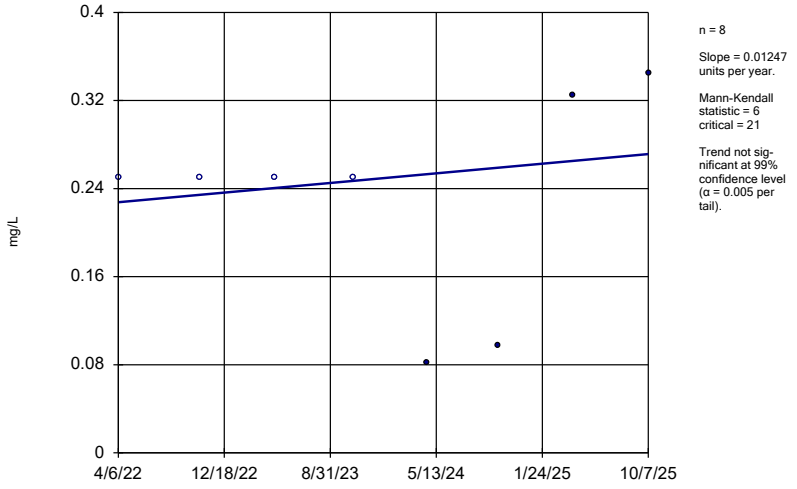
Constituent: Iron, Dissolved Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 8

Slope = 0.01247 units per year.

Mann-Kendall statistic = 6 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

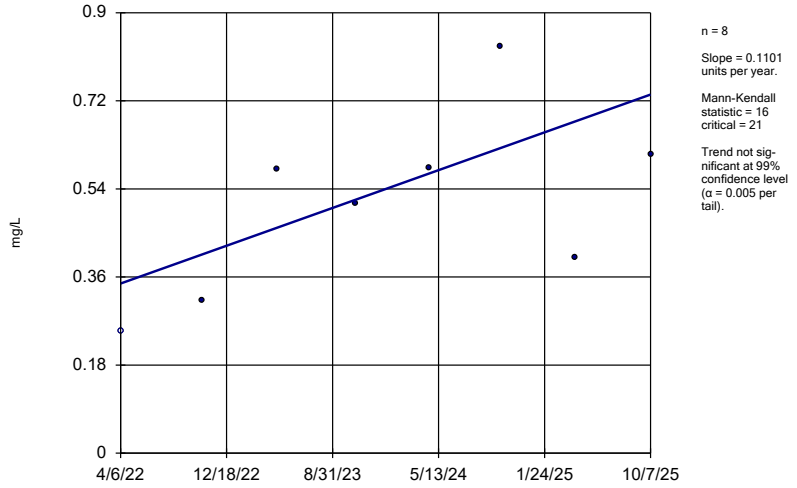
Constituent: Iron, Dissolved Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13



n = 8

Slope = 0.1101 units per year.

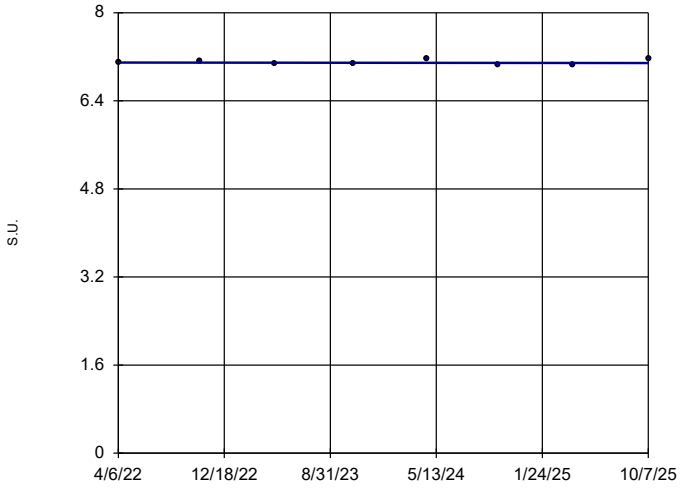
Mann-Kendall statistic = 16
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron, Dissolved Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-2R



n = 8

Slope = -0.002531 units per year.

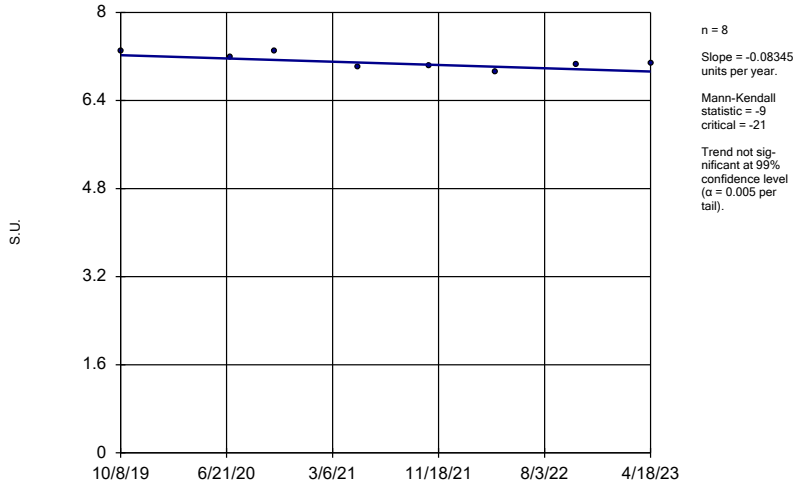
Mann-Kendall statistic = -1
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-3 (bg)



n = 8

Slope = -0.08345 units per year.

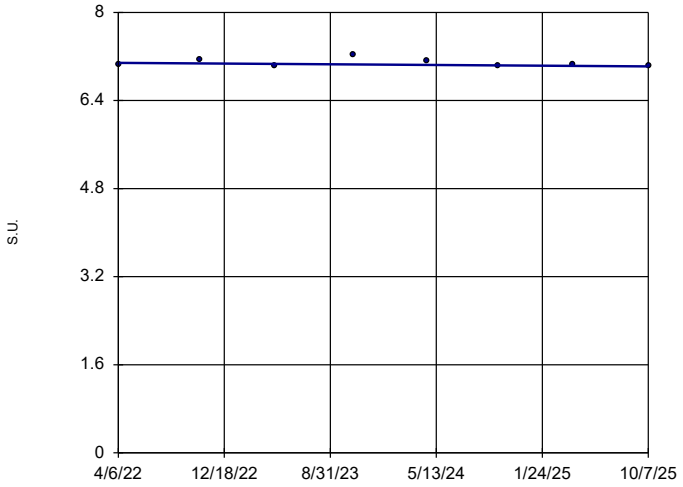
Mann-Kendall statistic = -9
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-12



n = 8

Slope = -0.01833 units per year.

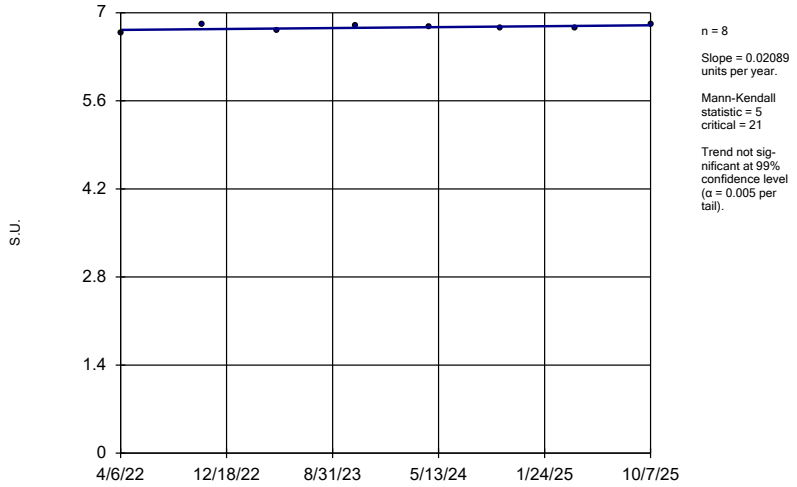
Mann-Kendall statistic = -7
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-13



n = 8

Slope = 0.02089 units per year.

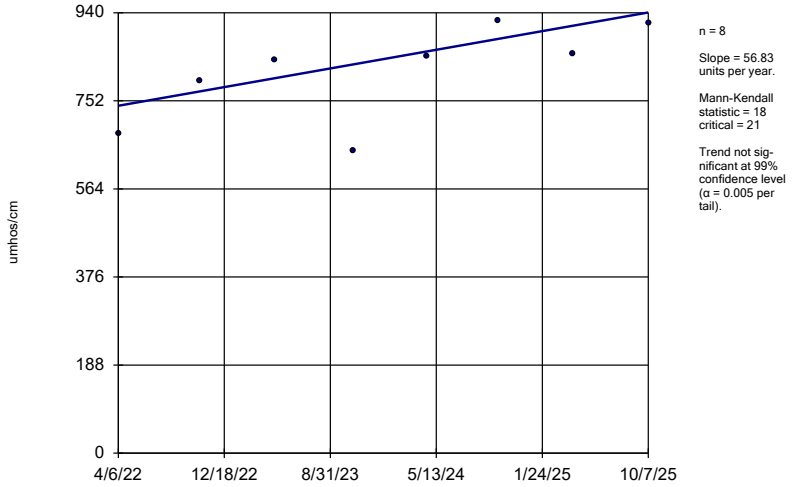
Mann-Kendall statistic = 5 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-2R



n = 8

Slope = 56.83 units per year.

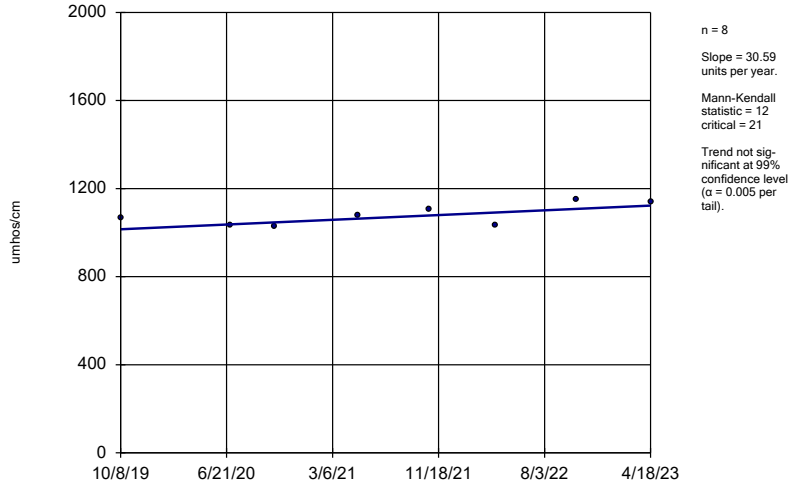
Mann-Kendall statistic = 18 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-3 (bg)



n = 8

Slope = 30.59 units per year.

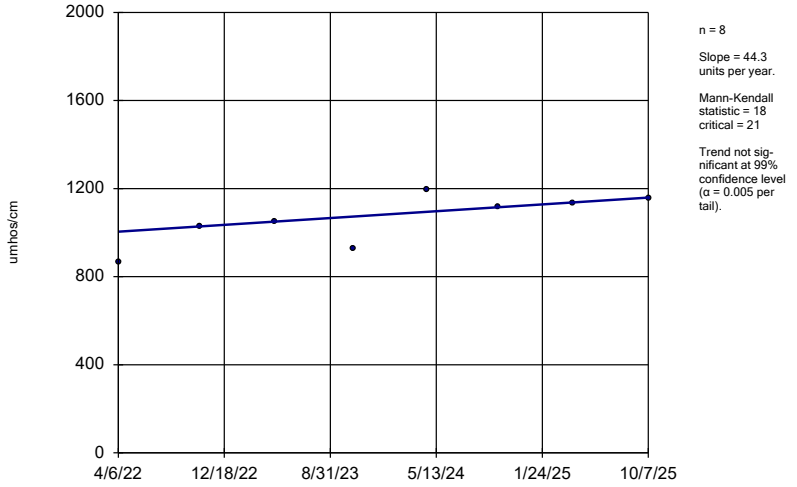
Mann-Kendall statistic = 12 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-12



n = 8

Slope = 44.3 units per year.

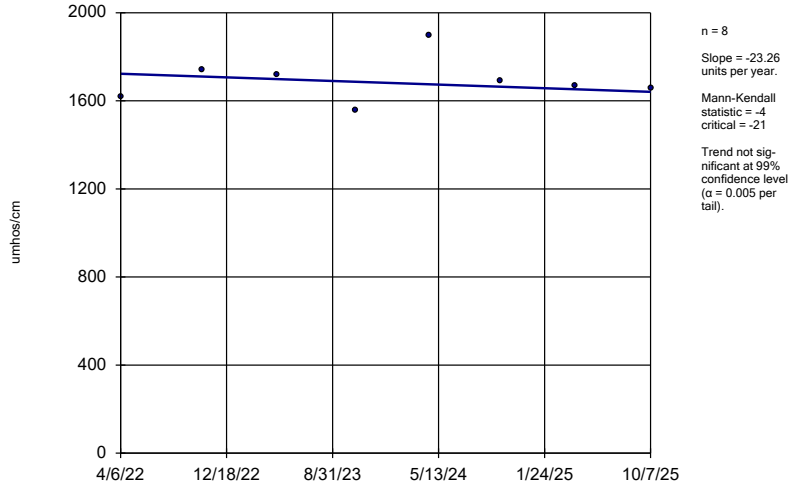
Mann-Kendall statistic = 18 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Specific Conductance Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-13

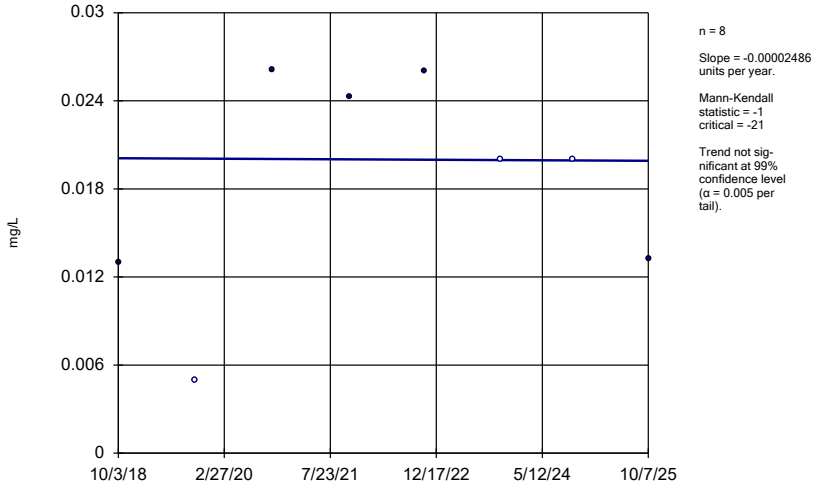


Constituent: Specific Conductance Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2R

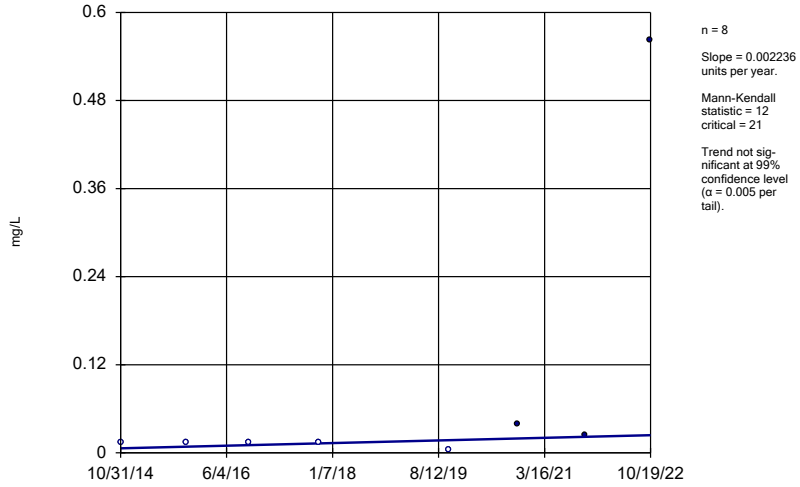


Constituent: Total Organic Halogens Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendal
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

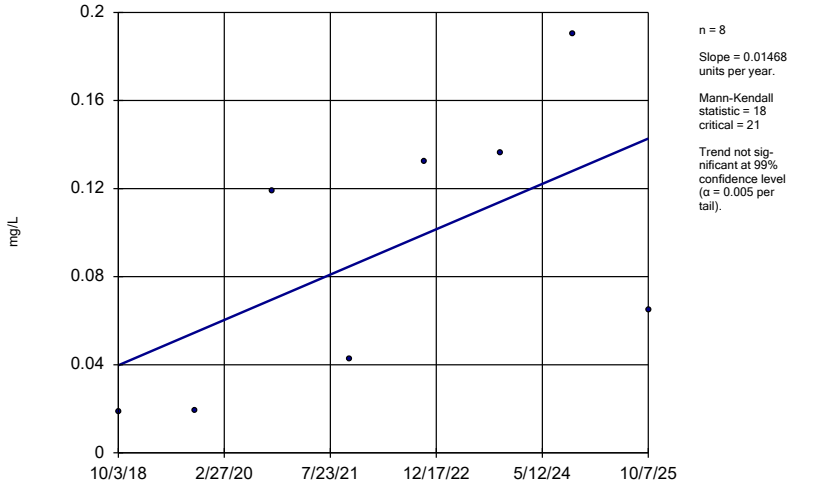
MW-3 (bg)



Constituent: Total Organic Halogens Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendal
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

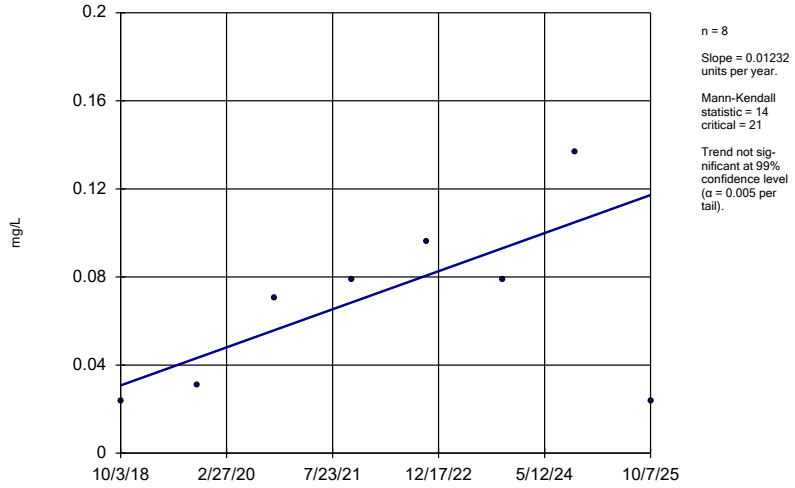
MW-12



Constituent: Total Organic Halogens Analysis Run 11/17/2025 2:57 PM View: 2025_AWQR-Mann_Kendal
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Sen's Slope Estimator

MW-13



n = 8

Slope = 0.01232 units per year.

Mann-Kendall statistic = 14 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

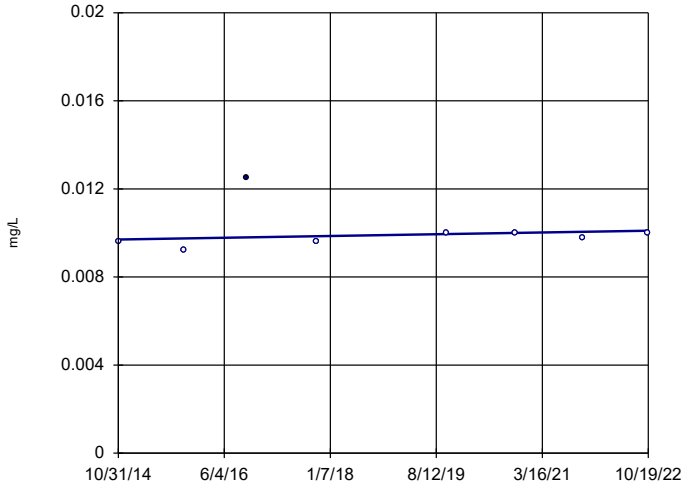
Constituent: Total Organic Halogens Analysis Run 11/17/2025 2:58 PM View: 2025_AWQR-Mann_Kendal

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3 (bg)



n = 8

Slope = 0.00005007 units per year.

Mann-Kendall statistic = 8 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Phenols Analysis Run 11/17/2025 2:58 PM View: 2025_AWQR-Mann_Kendall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX_CB_2025_AWQR_AWRS

Appendix E

Mann-Kendall Output

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-2R	Chemical Oxygen Demand		5	
	Chloride			26
	pH		-1	
	Specific Conductance			18
	Total Organic Halogens		-1	
MW-3	Chemical Oxygen Demand		-4	
	Chloride			18
	Iron, Dissolved		-7	
	pH		-9	
	Specific Conductance		12	
	Total Organic Halogens		12	
	Total Phenols		8	
MW-12	Ammonia as N		3	
	Chemical Oxygen Demand			20
	Chloride		11	
	Iron, Dissolved		6	
	pH		-7	
	Specific Conductance			18
	Total Organic Halogens			18
MW-13	Ammonia as N		-1	
	Chemical Oxygen Demand		1	
	Chloride		-4	
	Iron, Dissolved			16
	pH		5	
	Specific Conductance		-4	
	Total Organic Halogens			14

Appendix F

2025 Leachate Control System Performance Evaluation Report

Table F1
Leachate Management Summary
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

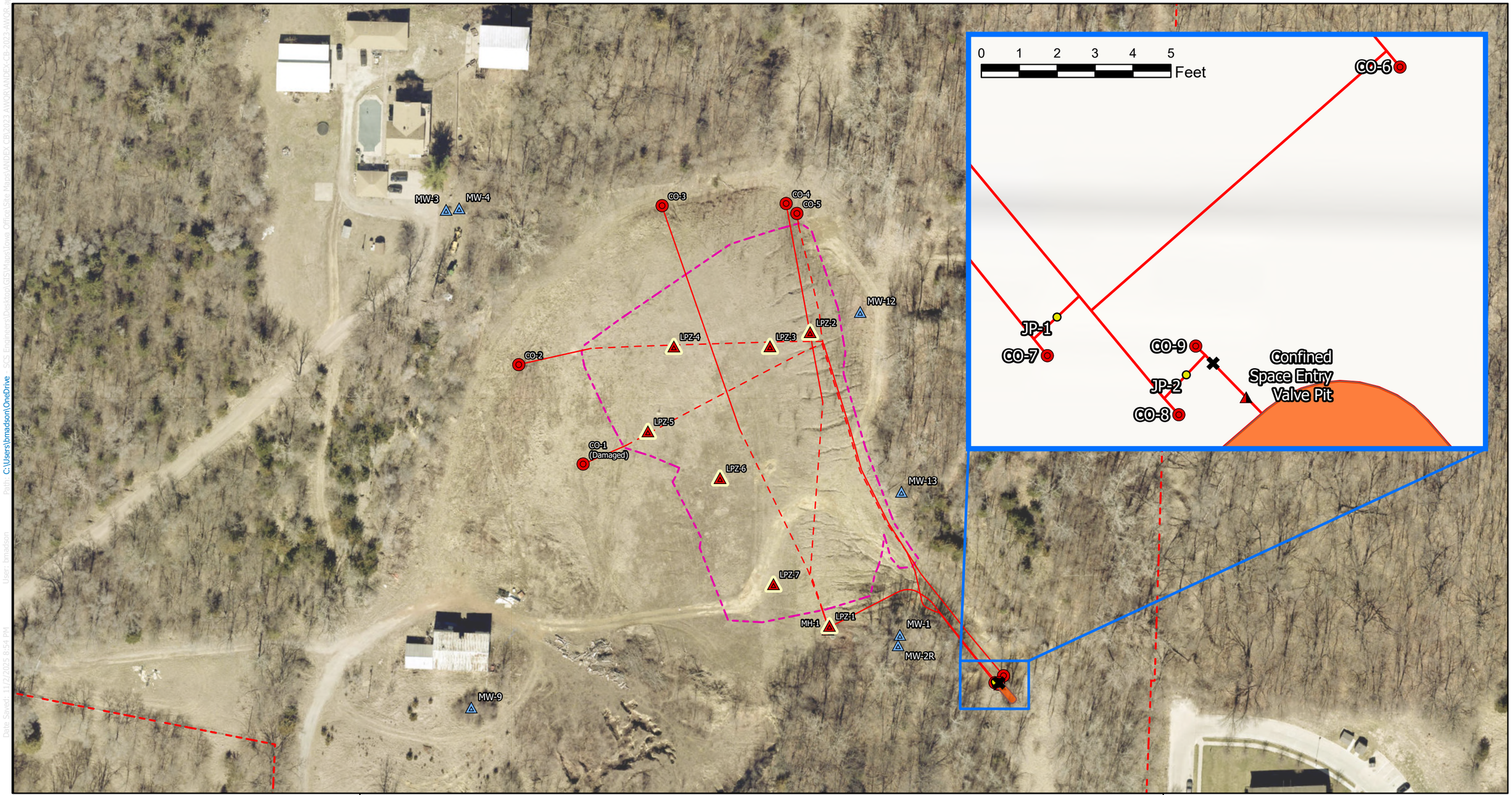
Month	Leachate Head on Liner (ft)							Leachate Storage Tank		Hauled to	Precipitation
	LPZ-1	LPZ-2	LPZ-3	LPZ-4	LPZ-5	LPZ-6	LPZ-7	Depth to Liquid (ft)	Leachate Volume (gal)	POTW (gal)	(in)
November 2024	0.79	Dry	NI	NI	NI	NI	NI	16.56	NA	0	3.95
December 2024	Dry	Dry	NI	NI	NI	NI	NI	16.55	NA	0	0.90
January 2025	0.47	Dry	NI	NI	NI	NI	NI	16.55	NA	0	0.04
February 2025	0.02	0.10	NI	NI	NI	NI	NI	16.55	NA	0	0.40
March 2025	Dry	0.05	NI	NI	NI	NI	NI	16.60	NA	0	1.80
April 2025	0.70	0.05	NI	NI	NI	NI	NI	17.40	NA	0	1.41
May 2025	0.18	0.10	Dry	Dry	Dry	Dry	Dry	16.55	NA	0	1.79
June 2025	0.02	0.10	Dry	Dry	Dry	Dry	Dry	16.52	NA	0	5.29
July 2025	0.07	0.15	Dry	Dry	Dry	Dry	Dry	16.98	NA	0	6.08
August 2025	0.02	0.10	Dry	Dry	Dry	Dry	Dry	16.55	NA	0	3.16
September 2025	NM (7)	Dry	Dry	Dry	Dry	Dry	Dry	16.52	NA	0	3.10
October 2025	Dry	0.1	Dry	Dry	Dry	Dry	Dry	16.48	NA	0	1.74
November 2025	0.95	Dry	0.10	Dry	0.15	0.10	0.12	16.50	NA	0	1.06
December 2025	0.12	Dry	0.30	Dry	0.40	Dry	0.15	16.40	NA	0	0.33
Total										0	31.05

Notes:

1) Historical leachate levels and graphs are provided in Attachment A.
2) Precipitation data obtained from National Centers for Environmental Information data tools (https://www.ncdc.noaa.gov/cdo-web/datatools/findstation).
3) NA - Not Available
4) NI - Not Installed
5) NM - Not Measured
6) The leachate level measurements in the leachate storage tank appeared to be erroneous during the April sampling event.
7) Sampler unable to locate piezometer.
8) LPZ-3 through LPZ-7 were installed in May approximately 5 feet above the liner as indicated in correspondence dated August 8, 2025 (Doc #113623).
9) Leachate head measurements less than one foot in LPZ-3 through LPZ-7 may represent fluid trapped in the well endcap and not necessarily a fluid column above the liner.

Comments:

Reporting Period: November 2024 - December 2025.
Approved Changes to Leachate Collection System: Five new leachate piezometers were installed in May 2025. Details were documented in correspondence dated May 20, 2025 (Doc #113095) and August 8, 2025 (Doc #113623).
Proposed Changes to Leachate Collection System: None.
Maintenance Performed on Leachate Collection System: None.
Last Date of Cleaning and Inspection: The last cleaning was completed in 2017 and a camera inspection of the leachate cleanouts was completed in 2019. SCS Engineers flushed the leachate collection pipes to determine conveyance in May 2025.
Date of Next Cleaning and Inspection: Leachate line cleaning and inspection is recommended to be performed in 2028.
Volume of Leachate Treated Off-Site: No leachate was hauled off site during the reporting period.



SCS ENGINEERS
environmental consultants and contractors

Leachate Control System

Legend

- Leachate Monitoring Point
- Manhole
- Leachate Cleanout
- Monitoring Well
- Junction Point
- Above Ground Shutoff Valve
- Approximate Location of Leachate Storage Tank
- Leachate Collection Piping (Perforated)
- Leachate Collection Piping (Solid)
- Approximate Waste Boundary
- Approximate Property Boundary

*All map feature locations are approximate

Anderson Excavating Council Bluffs Landfill
Council Bluffs, Iowa
Project No: 27225172.01
Drawing Date: November 2025

N
W E
S

0 75 150 300
Feet

Figure 1

Attachment A

Historical Leachate Levels and Graphs

HISTORICAL LEACHATE COLUMN THICKNESSES AND ELEVATIONS
COUNCIL BLUFFS C & D LANDFILL
Permit No. 78-SDP-04-89C
Project No. 27223230.00

	LPZ-1			LPZ-2			LPZ-3			LPZ-4			LPZ-5			LPZ-6			LPZ-7		
DATE	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate
07/03/08	6.30	33.8	27.50	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/07/08	6.50	34.0	27.50	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/22/08	4.87	34.0	29.15	2.02	38.0	36.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/24/08	6.52	34.1	27.55	3.44	38.0	34.56	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/04/08	5.33	33.9	28.55	2.90	38.0	35.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/26/08	6.40	34.0	27.60	0.70	37.8	37.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/20/09	5.64	33.9	28.22	0.26	37.8	37.54	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/25/09	NM	NM	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/09/09	NM	NM	NA	NA	NA	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/29/09	6.39	34.0	27.64	1.22	37.6	36.40	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/11/09	6.33	34.0	27.70	0.64	37.8	37.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/24/09	6.00	33.9	27.85	1.90	37.7	35.82	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/08/09	8.49	34.2	25.71	3.88	38.1	34.17	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/07/09	6.00	33.8	27.80	2.87	37.6	34.75	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/10/09	5.81	33.7	27.93	2.39	37.6	35.22	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/08/09	6.30	33.9	27.61	0.92	37.6	36.68	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/25/11	Dry	38.6	38.90	Dry	37.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/21/11	Dry	38.7	38.90	Dry	37.9	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/19/11	Dry	33.6	38.90	Dry	37.9	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/09/11	NM	NM	NA	NM	NM	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/17/11	Dry	33.5	38.90	Dry	38.3	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/29/11	Dry	33.5	38.90	Dry	38.3	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/26/11	7.96	33.5	25.50	10.50	38.3	27.75	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/04/11	Dry	33.5	38.90	Dry	38.3	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/29/11	15.00†	33.45†	18.45†	Dry	38.3	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/20/11	14.05†	32.9†	18.85†	5.82	38.7	32.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/24/12	14.07†	32.88†	18.81†	Dry	38.7	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/15/12	13.05†	32.1†	19.05†	Dry	38.2	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/19/12	13.77†	32.7†	18.93†	Dry	38.5	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/17/12	Dry	33.5	38.90	10.55	38.7	28.15	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/22/12	Dry	32.9	38.90	16.83	38.6	21.81	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/15/12	Dry	33.8	38.90	Dry	38.6	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/26/12	Dry	33.8	38.90	Dry	38.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/29/12	Dry	33.7	38.90	0.02	38.6	38.53	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/12/12	Dry	33.8	38.90	0.03	38.6	38.57	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/17/12	Dry	33.8	38.90	Dry	38.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/06/12	Dry	33.7	38.90	Dry	38.5	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/06/12	Dry	33.7	38.90	Dry	38.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/17/13	Dry	33.5	38.90	Dry	38.3	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/27/13	Dry	33.3	38.90	Dry	38.4	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/08/13	Dry	33.2	38.90	Dry	38.5	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/03/13	Dry	33.5	38.90	Dry	38.3	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/21/13	Dry	33.0	38.90	Dry	38.4	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/01/13	NM	NM	NA	NM	NM	NA	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/10/13	Dry	33.2	38.90	Dry	38.3	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/16/13	Dry	33.2	38.90	Dry	38.2	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/18/13	Dry	33.2	38.90	Dry	38.2	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/17/13	Dry	33.2	38.90	Dry	43.5	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/20/13	Dry	33.2	38.90	Dry	43.4	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/12/13	Dry	33.2	38.90	Dry	43.4	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/29/14	0.37	38.6	38.19	Dry	42.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/12/14	0.41	38.6	38.19	Dry	42.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/26/14	0.48	38.6	38.12	Dry	42.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/29/14	Dry	38.5	38.50	Dry	42.5	42.50	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/20/14	Dry	33.5	33.50	Dry	43.5	43.50	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/18/14	Dry	33.5	33.50	Dry	43.5	43.50	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/10/14	Dry	33.4	33.40	Dry	43.3	43.30	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/15/14	Dry	33.4	33.40	Dry	43.0	43.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/16/14	Dry	33.5	33.50	Dry	43.5	43.50	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/31/14	Dry	38.6	38.60	Dry	42.6	42.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/19/14	0.85	33.5	32.65	0.05	42.7	42.65	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/08/14	0.64	38.9	38.22	Dry	42.7	42.74	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/12/15	0.61	38.8	38.22	Dry	42.7	42.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/17/15	0.61	38.8	38.22	0.04	42.7	42.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/16/15	0.56	38.8	38.26	0.30	42.7	42.43	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/08/15	0.56	38.8	38.26	0.28	42.7	42.45	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/04/15	Dry	38.9	38.89	Dry	42.7	42.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/04/15	0.80	38.8	38.02	0.03	42.7	42.70	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/09/15	1.00	38.9	37.85	0.05	42.7	42.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/10/15	0.73	38.9	38.12	0.01	42.7	42.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/27/15	0.40	38.7	38.30	Dry	42.6	42.55	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/03/15	Dry	42.8	42.75	3.75	38.9	38.25	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/13/16	Dry	38.9	38.93	Dry	42.8	42.62	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/11/16	0.10	38.9	38.80	Dry	42.8	42.77	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/14/16	NM	NM	NM	3.69	38.7	38.31	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/21/16	0.99	37.9	37.91	NM	NM	NM	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/11/16	Dry	39.0	38.96	1.20	42.0	40.80	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/16/16	0.10	38.8	38.80	1.80	42.1	40.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/21/16	0.70	38.9	38.20	0.40	42.1	41.60	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/02/16	0.72	38.9	38.18	0.10	42.0	41.90	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/26/16	0.68	38.7	38.22	0.11	41.9	41.89	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/12/16	0.68	38.7	38.22	0.11	41.9	41.89	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/01/16	0.65	39.0	38.25	Dry	42.0	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/23/16	0.17	38.7	38.73	Dry	42.0	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/24/17	0.58	39.0	38.32	Dry	42.1	42.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

HISTORICAL LEACHATE COLUMN THICKNESSES AND ELEVATIONS
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	LPZ-1			LPZ-2			LPZ-3			LPZ-4			LPZ-5			LPZ-6			LPZ-7		
DATE	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate
02/10/17	0.58	39.0	38.32	Dry	42.0	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/09/17	0.43	38.9	38.47	Dry	43.0	43.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/11/17	0.31	38.8	38.59	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/08/17	0.75	38.9	38.15	Dry	44.0	43.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/09/17	0.24	39.0	38.66	1.02	42.0	40.98	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/17/17	Dry	38.9	38.93	Dry	44.0	43.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/01/17	Dry	38.9	38.93	Dry	44.0	43.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/12/17	0.62	39.0	38.28	Dry	42.1	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/26/17	Dry	38.9	38.93	Dry	44.0	43.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/30/17	0.15	39.0	38.75	Dry	42.0	42.04	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/28/17	1.48	39.0	37.42	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/06/18	0.49	38.9	38.41	17.15	42.2	24.85	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/02/18	1.80	39.2	37.10	1.90	42.0	40.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/08/18	0.67	38.8	38.23	2.22	42.2	39.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/27/18	0.78	38.9	38.12	0.92	42.1	41.08	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/29/19	0.68	38.9	38.22	2.12	42.1	39.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/14/19	0.61	38.9	38.29	1.88	42.1	40.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/06/19	0.44	38.9	38.46	1.18	42.1	40.82	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/09/19	0.10	38.8	38.80	Dry	42.2	42.15	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/23/19	0.80	39.0	38.10	1.92	42.1	40.08	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/13/19	0.36	39.4	38.54	3.12	42.1	38.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/23/19	0.80	39.0	38.10	1.15	42.1	40.85	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/20/19	0.76	39.0	38.14	0.13	42.1	41.87	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/12/19	0.70	39.0	38.20	Dry	42.1	42.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/08/19	0.88	39.0	38.02	2.25	42.1	39.75	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/21/19	0.70	38.9	38.20	1.90	42.1	40.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/11/19	0.69	39.0	38.21	1.00	42.1	41.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/28/20	0.70	39.0	38.20	Dry	42.1	42.11	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/24/20	Dry	39.0	38.94	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/25/20	0.90	39.0	38.00	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/29/20	0.74	39.0	38.16	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/01/20	0.60	39.0	38.30	Dry	42.2	42.09	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/21/20	0.39	39.0	38.51	Dry	42.1	42.09	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/27/20	0.70	39.0	38.20	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/29/20	0.68	38.9	38.22	Dry	42.1	42.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/15/20	0.63	38.9	38.27	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/25/20	0.58	38.9	38.32	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/10/20	0.59	38.9	38.31	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/19/21	0.38	38.9	38.52	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/18/21	0.56	38.9	38.34	Dry	42.1	42.08	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/28/21	0.60	39.0	38.30	0.56	42.2	41.44	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/27/21	0.68	39.0	38.22	Dry	42.1	42.07	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/17/21	0.53	38.9	38.37	Dry	42.1	42.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/21/21	1.59	39.0	37.31	Dry	42.1	42.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/03/21	0.70	39.1	38.20	Dry	42.1	42.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/01/21	1.02	39.0	37.88	0.09	42.0	41.91	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/26/21	0.70	39.0	38.20	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/22/21	0.71	39.0	38.19	0.01	42.1	41.99	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/22/21	0.71	39.0	38.19	Dry	42.1	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/30/22	0.62	39.0	38.28	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/23/22	0.58	39.0	38.32	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/08/22	0.61	39.0	38.29	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/06/22	0.62	39.0	38.28	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/24/22	0.67	39.0	38.23	Dry	42.1	42.08	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/29/22	0.91	39.0	37.99	0.03	42.1	41.97	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/19/22	0.01	39.0	38.89	Dry	42.1	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/18/22	0.72	39.0	38.18	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/07/22	0.81	39.0	38.09	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/19/22	0.58	39.0	38.32	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/08/22	0.75	39.0	38.15	Dry	42.1	42.06	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/12/22	0.68	39.0	38.22	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/26/23	0.76	39.0	38.14	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/21/23	0.61	39.0	38.29	Dry	42.1	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/30/23	0.91	39.0	37.99	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/18/23	1.06	39.0	37.84	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/31/23	0.67	39.0	38.23	Dry	42.1	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/27/23	0.69	39.0	38.21	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/25/23	0.70	39.0	38.20	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/30/23	0.70	39.0	38.20	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/11/23	0.74	39.0	38.16	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/27/23	0.52	39.0	38.38	Dry	42.1	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/20/23	0.72	39.0	38.18	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/12/23	0.66	39.0	38.24	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
01/31/24	0.18	39.0	38.72	Dry	42.1	42.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/29/24	0.20	39.0	38.70	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/13/24	0.59	39.0	38.31	20.78	42.1	21.22	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/19/24	0.35	39.0	38.55	20.58	42.1	21.42	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/16/24	0.75	39.0	38.15	Dry	42.1	42.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
06/01/24	0.19	39.0	38.71	0.11	42.1	41.89	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
07/16/24	0.67	39.0	38.23	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
08/29/24	0.15	39.0	38.75	Dry	42.1	42.04	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
09/27/24	0.70	39.0	38.20	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
10/29/24	Dry	39.0	39.00	Dry	42.1	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
11/11/24	0.79	39.0	38.21	Dry	42.1	42.1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
12/09/24	Dry	39.0	39.0	Dry	42.1	42.5	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

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	LPZ-1			LPZ-2			LPZ-3			LPZ-4			LPZ-5			LPZ-6			LPZ-7		
DATE	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate	Head	LPZ Depth	Depth to Leachate
01/13/25	0.47	39.00	38.53	Dry	42.10	42.10	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
02/28/25	0.02	39.00	38.98	0.10	42.10	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
03/12/25	Dry	39.00	39.00	0.05	42.10	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
04/08/25	0.70	39.00	38.30	0.05	42.10	42.05	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/08/25	0.18	39.00	38.82	0.10	42.10	42.00	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
05/14/25	NA	NA	NA	NA	NA	NA	Dry	49.05	49.05	Dry	49.11	49.11	Dry	46.10	46.10	Dry	48.70	48.70	Dry	47.67	47.67
06/05/25	0.02	39.00	38.98	0.10	42.10	42.00	Dry	49.05	49.05	Dry	49.07	49.07	Dry	46.02	46.02	Dry	48.60	48.60	Dry	47.60	47.60
07/02/25	0.07	39.00	38.93	0.15	42.10	41.95	Dry	49.09	49.09	Dry	49.11	49.11	Dry	46.10	46.10	Dry	48.69	48.69	Dry	47.68	47.68
08/12/25	0.02	39.00	38.98	0.10	42.10	42.00	Dry	49.08	49.08	Dry	49.10	49.10	Dry	46.10	46.10	Dry	48.69	48.69	Dry	47.68	47.68
09/09/25	NA	39.00	39.00	Dry	42.10	42.10	Dry	49.05	49.05	Dry	49.08	49.08	Dry	45.01	45.01	Dry	48.59	48.59	Dry	47.60	47.60
10/07/25	Dry	39.00	39.00	0.10	42.10	42.00	Dry	49.08	49.08	Dry	49.10	49.10	Dry	46.10	46.10	Dry	48.69	48.69	Dry	47.68	47.68
11/07/25	0.95	39.00	38.05	Dry	42.10	42.10	0.10	49.10	49.00	Dry	49.11	49.11	0.15	46.10	45.95	0.10	48.70	48.60	0.12	47.67	47.55
12/16/25	0.12	32.00	31.88	Dry	42.00	42.00	0.30	49.10	48.80	Dry	49.10	49.10	0.40	46.10	45.70	Dry	48.70	48.70	0.15	47.65	47.50

Notes:

All measurements are in feet.

Elevation of top of casing (ft amsl): LPZ-1:1143.00, LPZ-2:1136.02 prior to December 2015.

Elevation of top of casing (ft amsl): LPZ-1:1146.21, LPZ-2:1143.75 after November 2015.

* An equipment malfunction prevented the measurement of leachate level and well depth.

** Levels and depths were not measured due to personnel error.

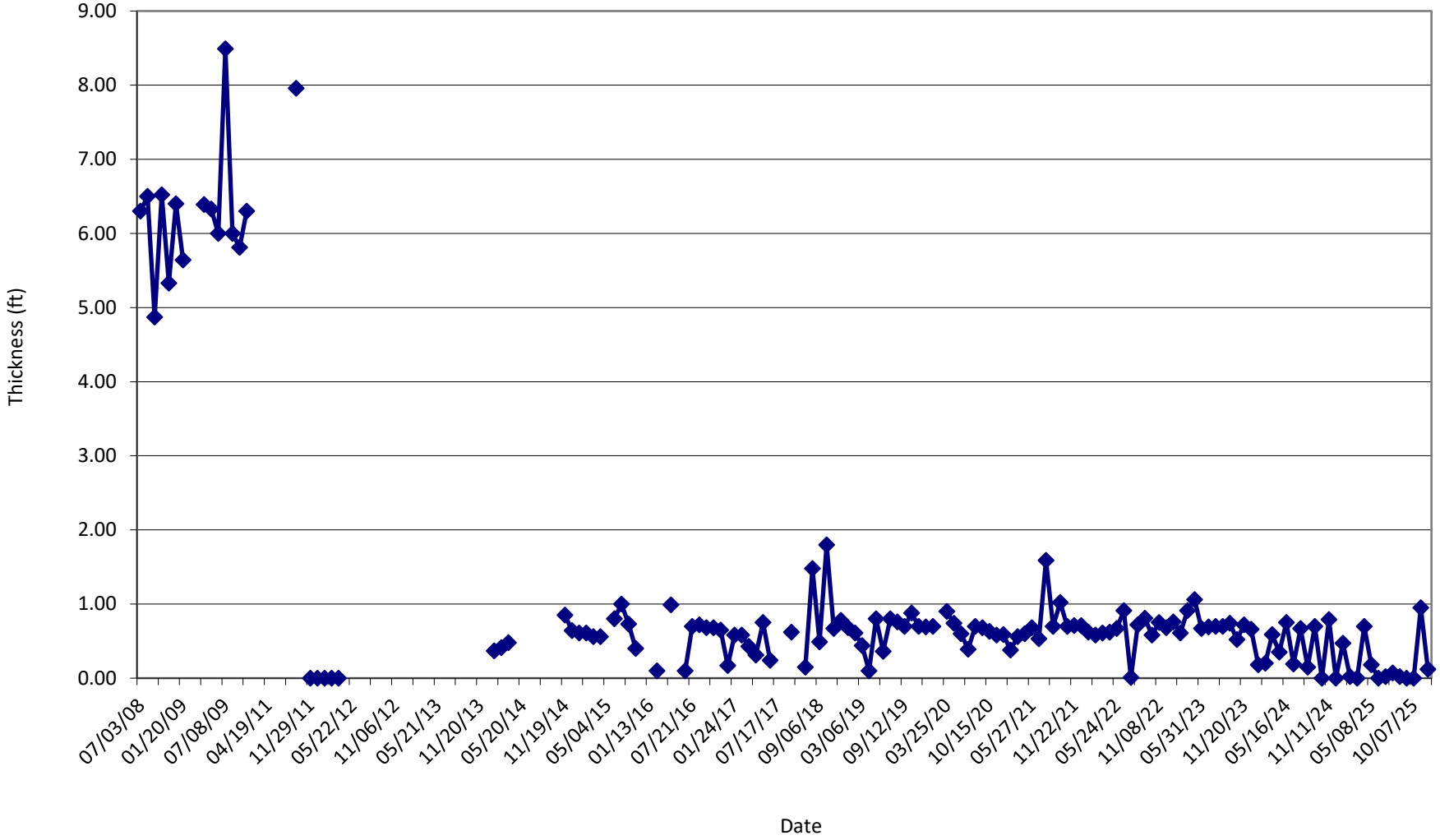
† Possible erroneous data as stated in 2012 LCSPER.

Column thicknesses beginning in December 2015 are based on total depths of 38.9 and 42.0 for LPZ-1 and LPZ-2, respectively.

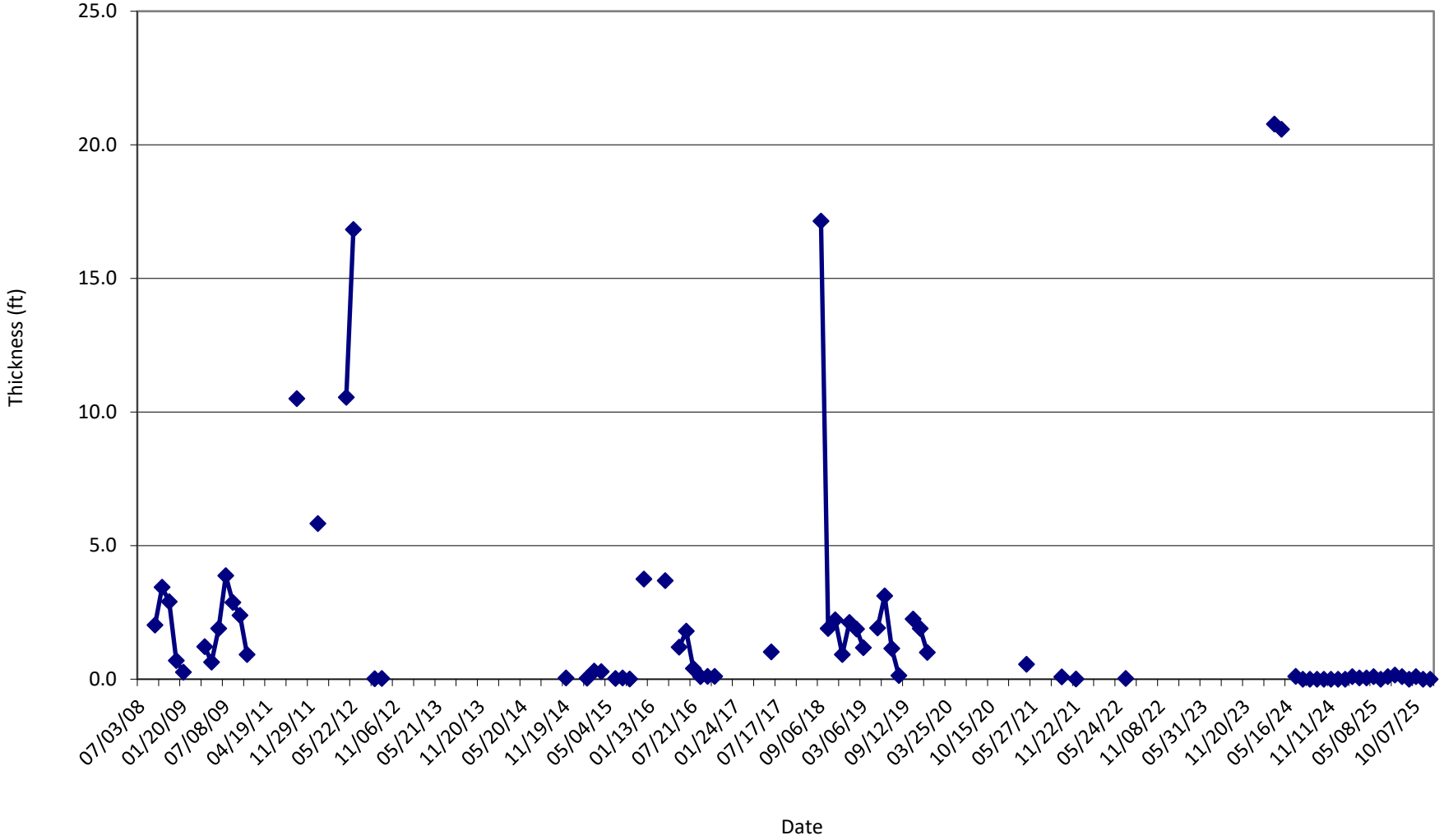
Levels and depths were not measured from January 2018 - August 2018.

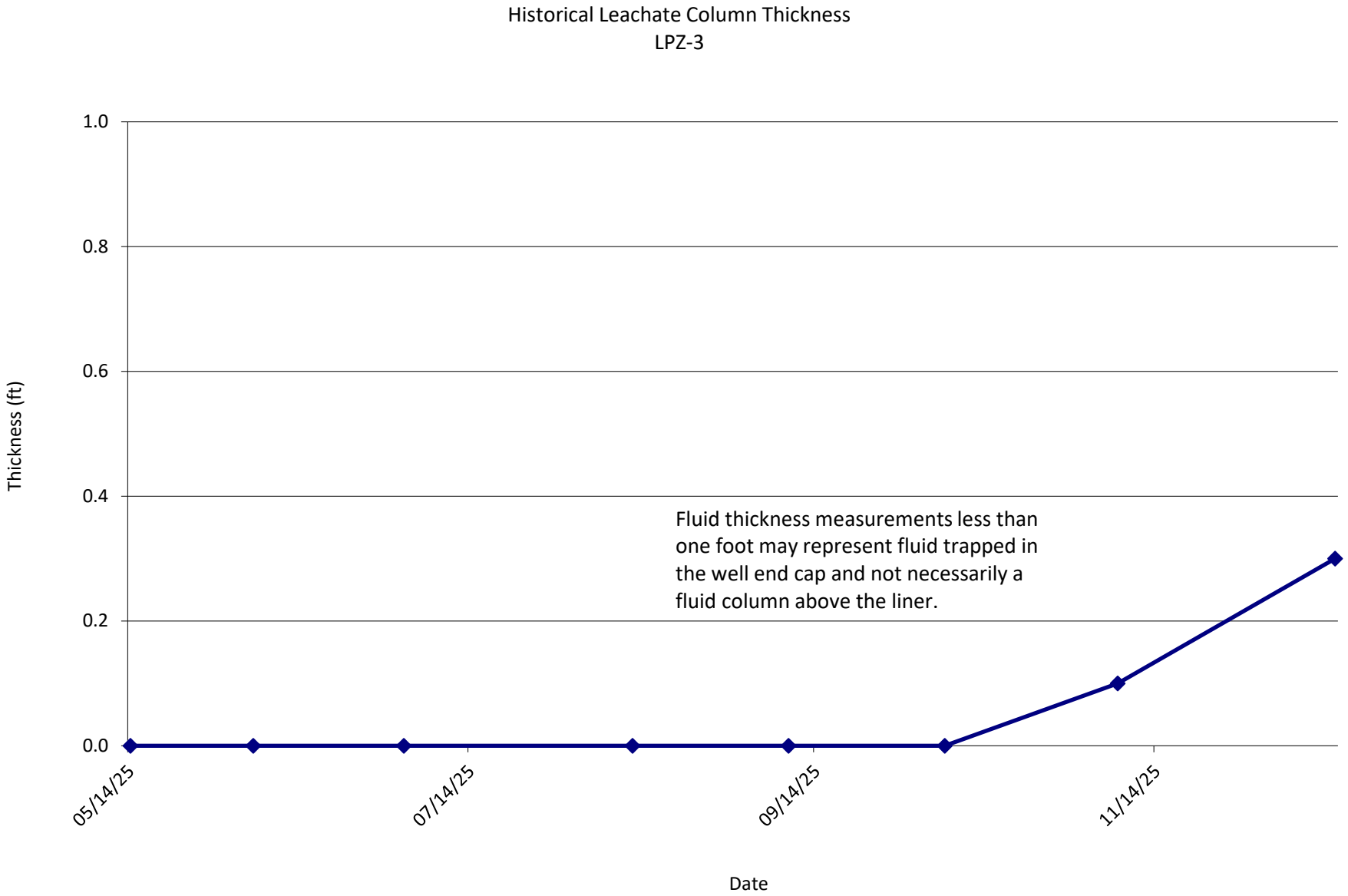
Fluid thickness measurements less than one foot in LPZ-3 through LPZ-7 may represent fluid trapped in the well end cap and not necessarily a fluid column above the liner.

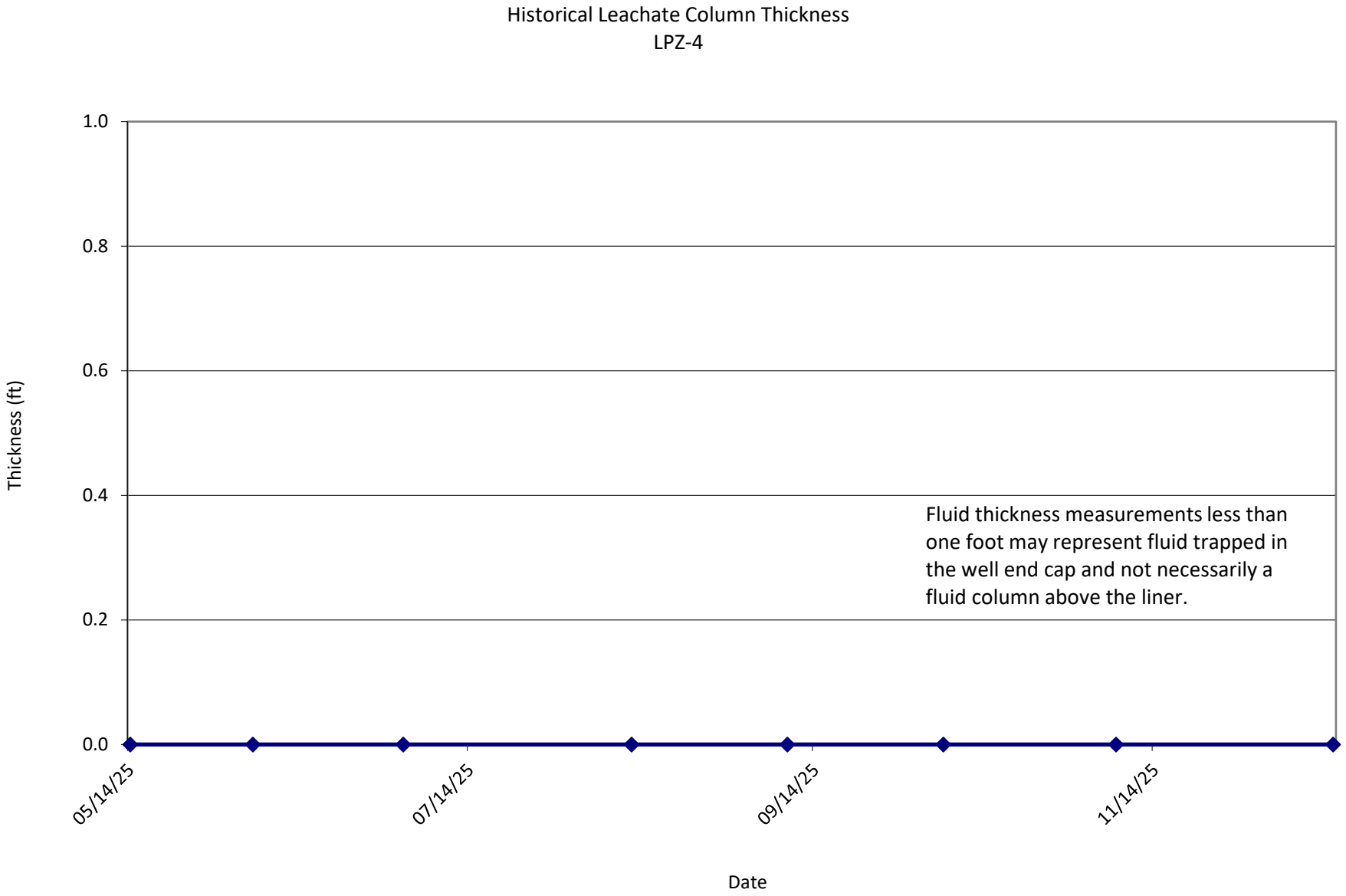
Historical Leachate Column Thickness
LPZ-1



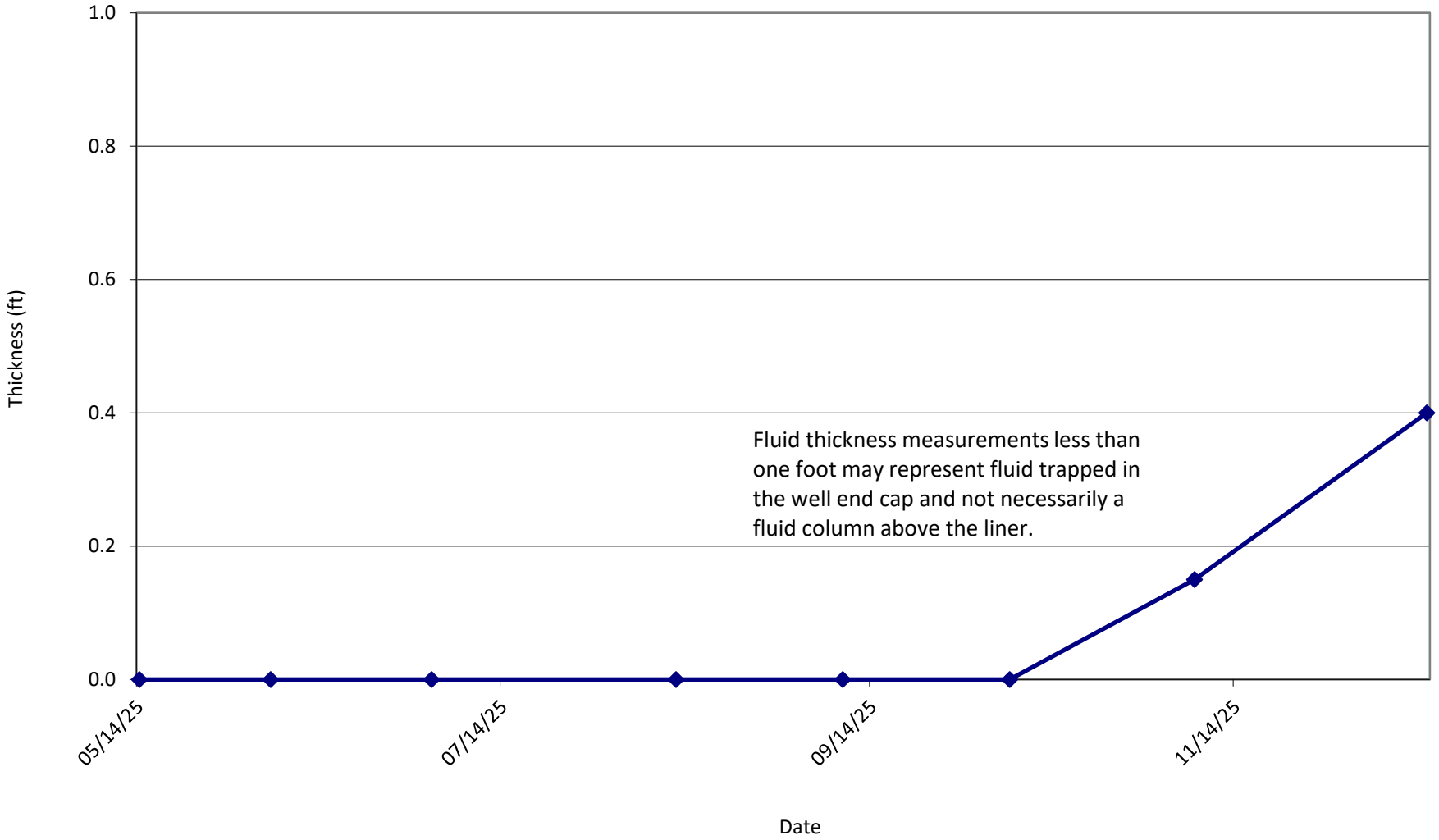
Historical Leachate Column Thickness
LPZ-2



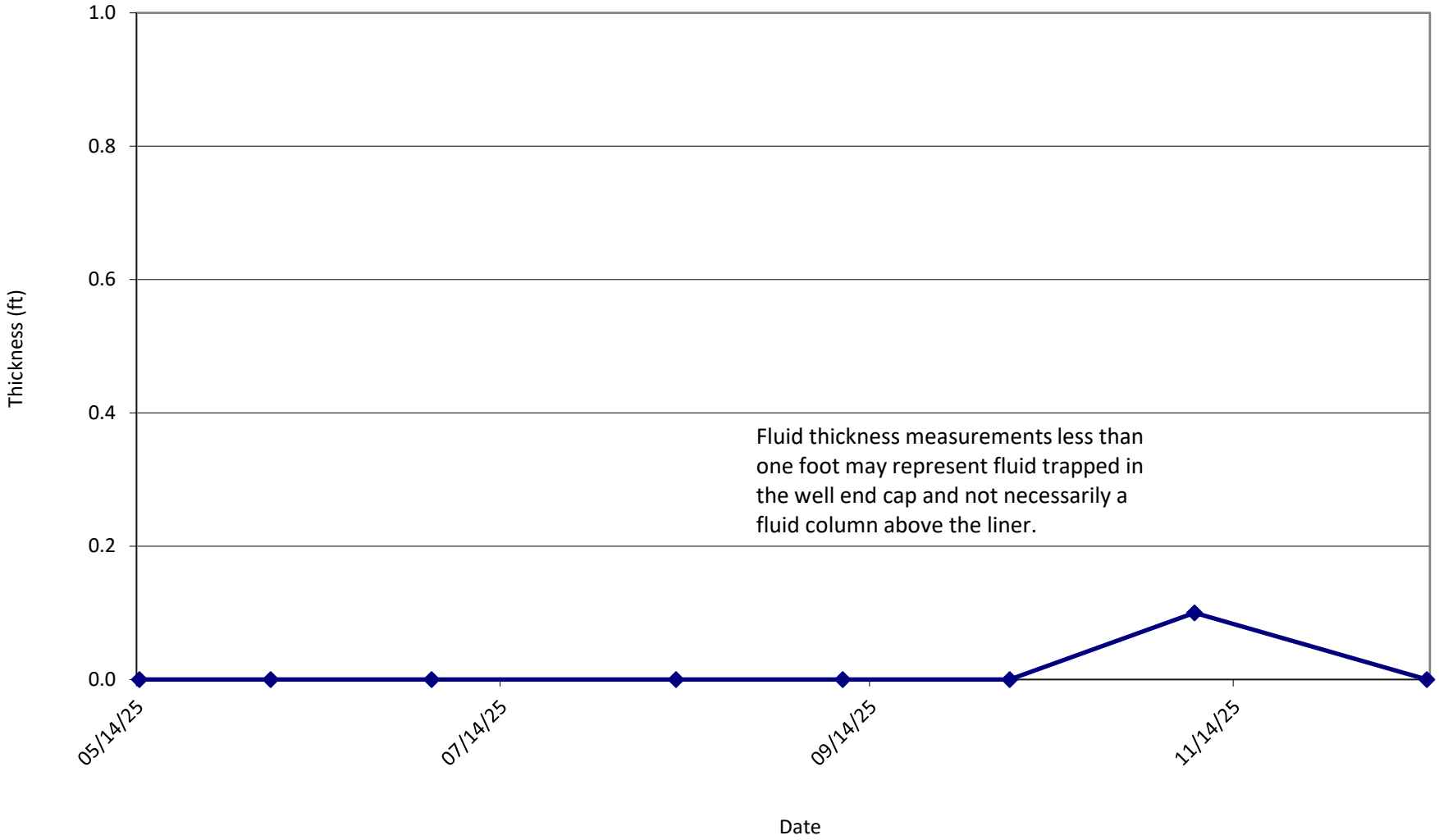

Historical Leachate Column Thickness
LPZ-3
1.0
0.8
0.6
0.4
0.2
0.0
Thickness (ft)
Fluid thickness measurements less than one foot may represent fluid trapped in the well end cap and not necessarily a fluid column above the liner.
05/14/25
07/14/25
09/14/25
11/14/25
Date


Historical Leachate Column Thickness
LPZ-4
1.0
0.8
0.6
0.4
0.2
0.0
Thickness (ft)
Fluid thickness measurements less than one foot may represent fluid trapped in the well end cap and not necessarily a fluid column above the liner.
05/14/25
07/14/25
09/14/25
11/14/25
Date

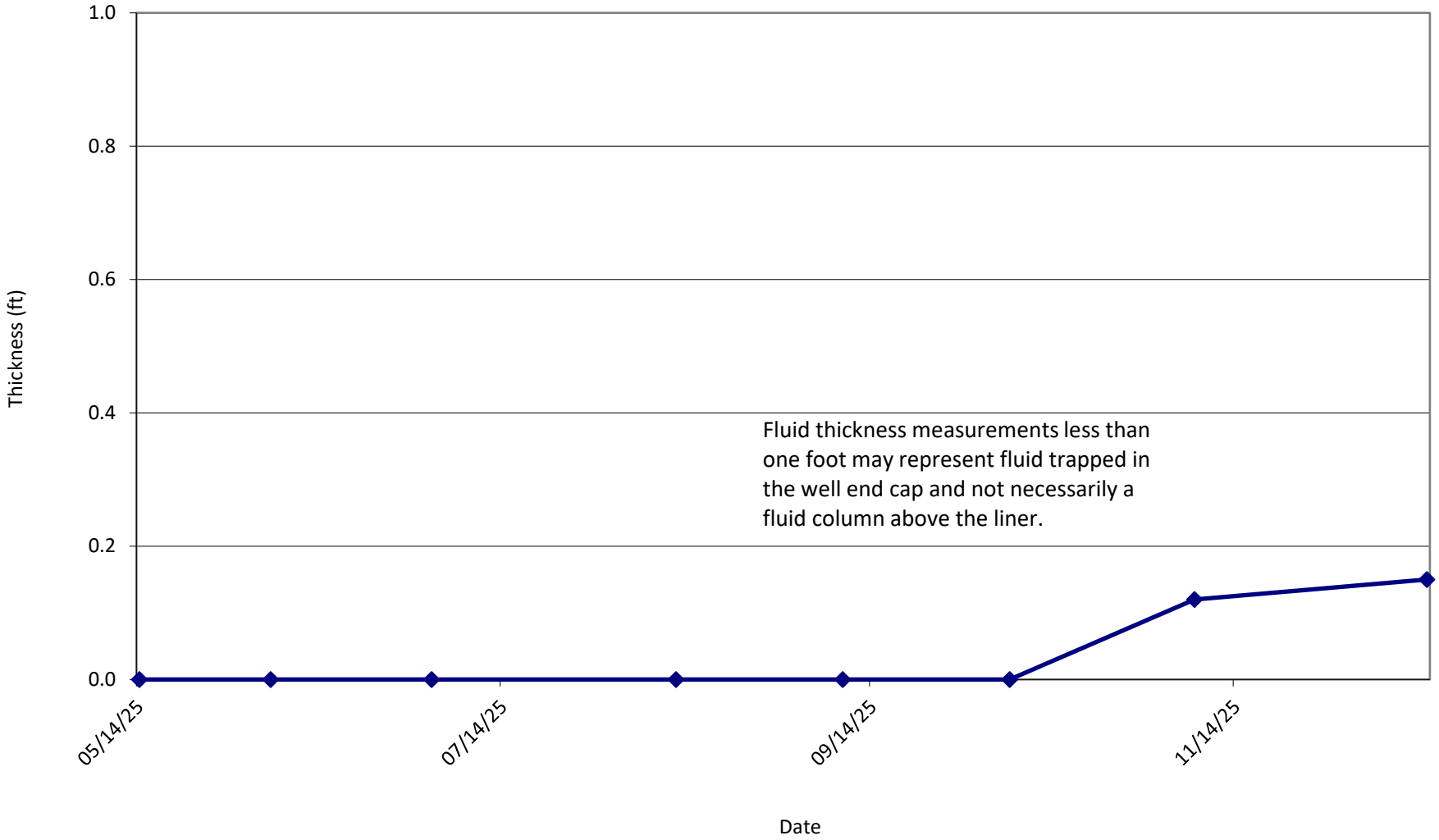
Historical Leachate Column Thickness
LPZ-5



Historical Leachate Column Thickness
LPZ-6



Historical Leachate Column Thickness
LPZ-7



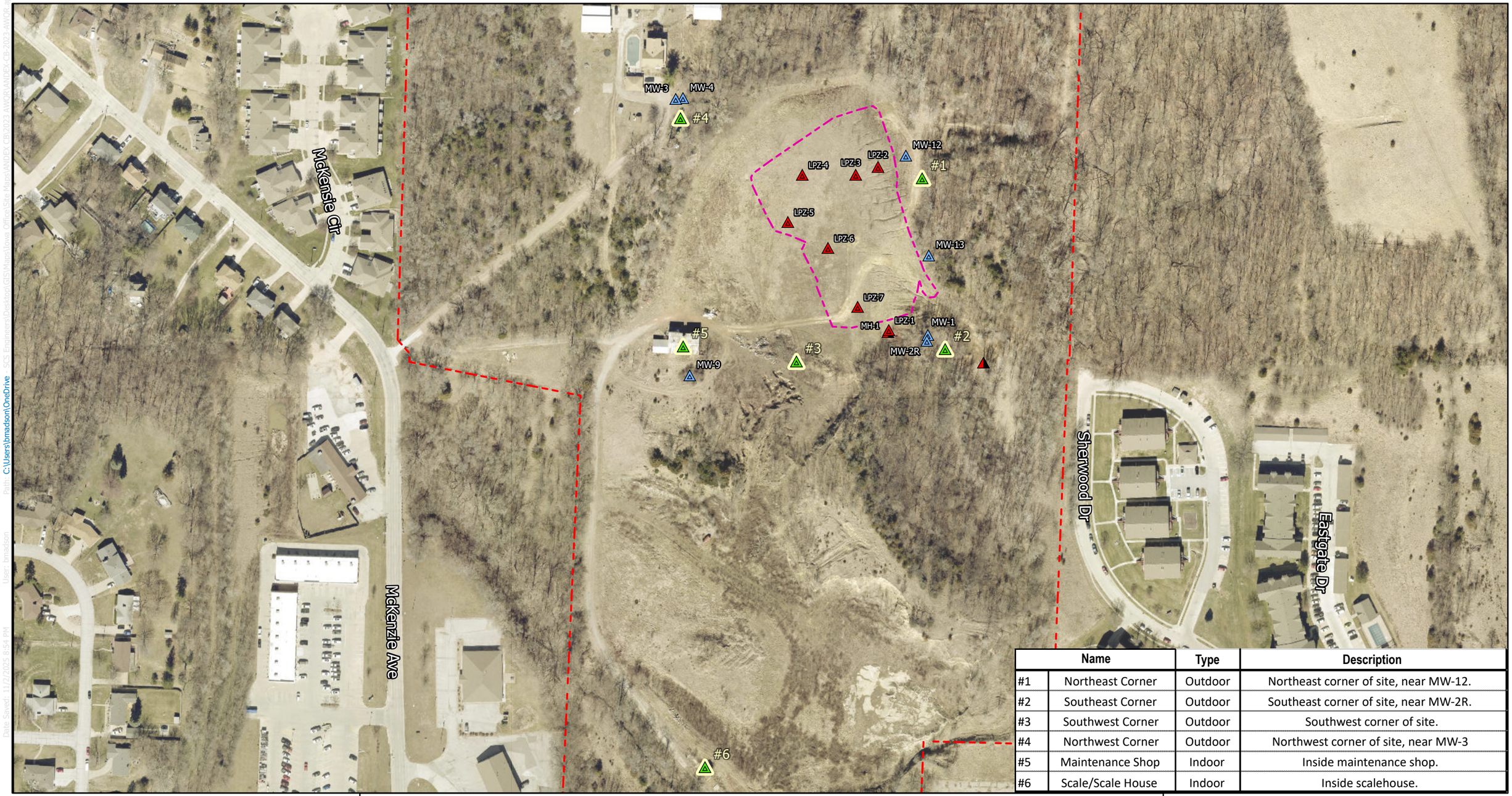
Appendix G

2025 Landfill Gas Annual Report

Table G1
Gas Monitoring Summary
2025 Annual Water Quality Report
Council Bluffs C&D Landfill
Permit No. 78-SDP-04-89C

Monitoring Points				Methane Results (% LEL)							
Name		Type	Description	3/12/2025	S (Y/N)	4/8/2025	S (Y/N)	8/12/2025	S (Y/N)	12/16/2025	S (Y/N)
#1	Northeast Corner	Outdoor	Northeast corner of site, near MW-12.	0%		0%		0%		0%	
#2	Southeast Corner	Outdoor	Southeast corner of site, near MW-2R.	0%		0%		0%		0%	
#3	Southwest Corner	Outdoor	Southwest corner of site.	0%		0%		0%		0%	
#4	Northwest Corner	Outdoor	Northwest corner of site, near MW-3.	0%		0%		0%		0%	
#5	Maintenance Shop	Indoor	Inside maintenance shop.	0%		0%		0%		0%	
#6	Scale/Scale House	Indoor	Inside scale house.	0%		0%		0%		0%	

S(Y/N) - Was screen submerged, yes or no.



	Name	Type	Description
#1	Northeast Corner	Outdoor	Northeast corner of site, near MW-12.
#2	Southeast Corner	Outdoor	Southeast corner of site, near MW-2R.
#3	Southwest Corner	Outdoor	Southwest corner of site.
#4	Northwest Corner	Outdoor	Northwest corner of site, near MW-3
#5	Maintenance Shop	Indoor	Inside maintenance shop.
#6	Scale/Scale House	Indoor	Inside scalehouse.

SCS ENGINEERS
environmental consultants and contractors

Methane Monitoring Network

Legend

- Methane Monitoring Point
- Leachate Monitoring Point
- Monitoring Well
- Manhole
- Approximate Waste Boundary
- Approximate Property Boundary

Anderson Excavating Council Bluffs Landfill
Council Bluffs, Iowa
Project No: 27225172.01
Drawing Date: November 2025

Figure 1

N W E S

0 140 280 560 Feet