SCS ENGINEERS

West Des Moines, IA

Transmittal

PROJECT:	Guthrie Co,FY26 Env Comp,IA 27223271.26	DATE:	10/12/2026
SUBJECT:	2026-10-12_Guthrie County Sanitary Landfill - 39-SDP-01-73C - 2026 Annual Water Quality Report	TRANSMITTAL ID:	00004
PURPOSE:	For your review and comment	VIA:	Info Exchange

FROM

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TO

NAME	COMPANY	EMAIL	PHONE
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REMARKS:

Good morning Brian-

SCS Engineers, on behalf of Guthrie County Environmental Health, is submitting for download the 2026 Annual Water Quality Report for the Guthrie County Sanitary Landfill. If you have any questions or comments regarding this report, please contact me at the number below. Thank you.

SCS ENGINEERS

Nathan Ohrt
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Transmittal

DATE: 10/12/2026
TRANSMITTAL ID: 00004

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	10/12/2026	2026-10-12_Guthrie County Sanitary Landfill - 39-SDP-01-73C - 2026 Annual Water Quality Report.pdf	

COPIES:

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File No. 27223271.26

October 12, 2026

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

Subject: 2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Dear Brian:

SCS Engineers, on behalf of Guthrie County Environmental Health, has completed the required groundwater monitoring and statistical evaluation for the closed Guthrie County Sanitary Landfill (Landfill) for the year 2026. Services were performed in general accordance with 2026 Iowa Administrative Code (IAC) 567-101.110(455B) and the current requirements for implementation of the Hydrologic Monitoring System Plan for the Landfill. Please find enclosed a copy of the 2026 Annual Water Quality Report.

If you have any questions regarding this report, please contact Nathan Ohrt at the number below.

Sincerely,

Nathan Ohrt
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CC: Mr. Jotham Arber, Guthrie County Environmental Health

2026 Annual Water Quality Report

GUTHRIE COUNTY ENVIRONMENTAL HEALTH | Guthrie County Sanitary Landfill

Guthrie Center, IA | Solid Waste Permit Number: 39-SDP-01-73C

SCS ENGINEERS

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Project No. 27223271.26 | October 2026

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Certification

Prepared by:  Date: 10/12/2026

Nathan Ohrt

Reviewed by:  Date: 10/12/2026

Sean Marczewski

Certification page (PE or groundwater scientist signature) **567-100.2(455B, 455D)**

For the purposes of this rule, a “qualified groundwater scientist” means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

Executive Summary

ES.1 Period of Report Coverage

SCS Engineers (SCS), on behalf of Guthrie County Environmental Health, has completed the required groundwater sampling for the closed Guthrie County Sanitary Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results for the year 2026, consisting of the January 2026 retesting/background sampling event and the June 2026 annual sampling event. This AWQR was prepared in accordance with the requirements of 2026 Iowa Administrative Code (IAC) 567-101.110, the Landfill closure permit and applicable amendments, 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: Monitoring well MW-14 had a statistically significant increase (SSI) above background for nickel indicated in the last three statistical evaluations (2024-2026). However, the last three total suspended solids (TSS) concentrations in samples collected from monitoring well MW-14 (1 in 2025 and 2 in 2026) are the highest in the period of record, dating back to 2014. It appears likely that elevated TSS concentrations are contributing to elevated nickel concentrations. It is recommended not to confirm the nickel SSI indicated in monitoring well MW-14 until a representative sample is collected.
- Department review impact on rules schedule: An evaluation of groundwater quality, methane migration, leachate management, and cap integrity to demonstrate the Landfill's status relating to ending post-closure maintenance will be submitted under separate cover.
- 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: None, landfill closed. Previously MSW and C&D.
- Applicable IAC rules:
    - The closure permit was issued in accordance with the 1989 567 IAC Chapter 103.
    - Correspondence from the Iowa Department of Natural Resources (DNR) dated October 8, 2008 (Doc #32705) required compliance with the 2009 IAC 567-113.2(5)"e" and subsequently the groundwater monitoring rules of IAC 567-113.10(6-9).
    - A variance request approved on June 29, 2010 (Doc #58287) replaced the requirements of the 2009 IAC 567-113.2(5), 113.2(5)"d," and 113.2(5)"e" with the requirements of 567-113.10.
    - The June 29, 2010 variance (Doc #58287) approved the preparation of the Monitoring Well Maintenance and Performance Reevaluation Plan in accordance with the 2009 IAC 567-113.10(2)"f".
    - The 2026 IAC changed the code reference for the 2009 IAC 567-113.10(2)"f" to 2026 IAC 567-101.110(2)"*d*".

- The 2026 IAC changed the code reference from the 2009 IAC 567-113.10(6-9) to the 2026 IAC 567-101.102(7)*d*, which states that the owner or operator shall comply with the groundwater assessment monitoring program requirements in 101.110(6) and corrective action requirements in 101.110(7), 101.110(8), and 101.110(9), if necessary.

ES.4 Comments

Background monitoring well MW-21 was initially sampled during the 2025 annual sampling event. As sufficient data for statistical evaluation was not available from MW-21 during this reporting period, inorganic data from previous background monitoring well MW-12 and existing data from MW-21 (3 samples) were used as the background dataset. Background sampling for monitoring well MW-21 will continue during the 2027 reporting period.

SSIs above background were measured for nickel in detection monitoring wells MW-14 and MW-19 during the 2025 reporting period. The monitoring wells were retested in January 2026. The nickel concentration in MW-19 was below the prediction limit, so the indicated SSI was not confirmed. See discussion for monitoring well MW-14 in the Report Priority above.

Volatile organic compounds (VOCs) were detected in assessment monitoring well MW-3 and corrective action monitoring well MW-16; none of the VOCs exceeded a groundwater protection standard (GWPS). Apart from the previously reported statistically significant levels (SSLs) above the groundwater protection standards (GWPSs) for arsenic and cobalt in monitoring well MW-16, no SSLs were measured during this reporting period. It should be noted that the lower confidence limits for arsenic and cobalt in monitoring well MW-16 were below the GWPS during this reporting period. As shown in Table 11, the concentration trends of arsenic and cobalt are stable and decreasing, respectively, in monitoring well MW-16.

As stated in the submittal of well installation documentation dated November 13, 2020, prepared by Evora Consulting (Doc #98927), monitoring well MW-20 was installed to bracket the area of groundwater impact measured at monitoring well MW-16. The DNR concurred with this objective in correspondence dated December 16, 2020 (Doc #99140). Monitoring results for monitoring well MW-20 have not exceeded the reporting limit for arsenic or cobalt since installation in 2021, indicating the extent of impact near MW-16 is defined.

Acronyms/Abbreviations

ACM = Assessment of Corrective Measures
C&D = Construction and Demolition Waste
CAMP = Corrective Action Groundwater Monitoring Program
CCV = Continuing Calibration Verification
CL = Control Limit - Mean plus Two Standard Deviations
DNR = Iowa Department of Natural Resources
DO = Dissolved Oxygen
DQR = Double Quantification Rule
GWPS = Groundwater Protection Standard
LEL = Lower Explosive Limit
LCL = Lower Confidence Limit
LCS = Laboratory Control Sample
LN = Lognormal
MCL = EPA Maximum Contaminant Level
MDL = Method Detection Limit
MSW = Municipal Solid Waste
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PCA = Pre-Corrective Action Monitoring Program
PL = Prediction Limit
QA = Quality Assurance
QC = Quality Control
RL = Reporting Limit
SWS = DNR Statewide Standard for a Protected Groundwater Source
SSI = Statistically Significant Increase Above Background
SSL = Statistically Significant Level Above Groundwater Protection Standard
SSS = Site-Specific Standard (Site-Specific GWPS)
TSS = Total Suspended Solids
UCL = Upper Confidence Limit
VOC = Volatile Organic Compound

1.0 Site Background

1.1 SITE LOCATION

The Guthrie County Sanitary Landfill (Landfill) property is depicted in Figure 1, Approved Monitoring Network. The Landfill is located 3 miles west-southwest of Guthrie Center, Iowa, in a portion of the S ½ of the NE ¼ of Section 10, T79N, R32W, in Guthrie County, Iowa.

1.2 FACILITY

The Landfill began operation in 1974. The Landfill accepted municipal solid waste and construction and demolition waste from its service area. The Landfill was closed and the final cap was installed in 2000. Since closure, waste has been transferred to the Carroll County Sanitary Landfill in Carroll, Iowa. The Landfill was issued a closure permit on September 12, 2002.

1.3 GEOLOGY AND HYRDOGEOLOGY OF THE SITE

The *Hydrogeologic Investigation and Monitoring System Plan*, dated December 12, 1991, prepared by Green Environmental Services, Inc., provided geological and hydrogeological descriptions that are excerpted below:

Regional surficial soils and sediments are either glacial or alluvial in origin. Glacial sediments are comprised of till, glaciofluvial, and loess deposits. The till and glaciofluvial deposits are of a pre-[Wisconsinian] glacial stage, originating some 2.5 million years before present while the loess was deposited some 15,000 years before present. Alluvial sediments are found on flood plains and along ancient and present-day stream channels.

Till thickness within an approximate 4 mile radius of the site varies from 15 feet in the Seely Creek flood plain west of the landfill to 98 feet at the landfill site. Loess is typically 5 to 15 feet in thickness where present in this area.

As determined from lithologic logs located within an approximate 4 mile radius of the site, the uppermost bedrock of the region is composed of sandstone and shale of the Cretaceous age Dakota Group. Bedrock elevations range from approximately 1050 to 1167 feet msl [above mean sea level] regionally. The landfill site is located on a bedrock high which has a typical elevation of 1160 feet msl.

Two aquifers exist at the site. The first is the uppermost surficial water table aquifer which is encountered at depths ranging from 4 to 14 feet below ground surface and is generally controlled by the loess-till contact or the occurrence of a sand lens in the till. The second is the bedrock water table aquifer which is encountered in the Dakota sandstone. This aquifer is under unconfined to semi-confined conditions due to groundwater discharge to the South Raccoon River basin directly north of the site.

No hydraulic connection between the overlying surficial aquifer and the lower bedrock aquifer exists. This is demonstrated by the unsaturated uppermost portion of the Dakota sandstone which directly underlies the glacial till. This unsaturated zone varies from 17 to 55 feet in thickness. Recharge of the Dakota aquifer likely occurs offsite to the west with a small local contribution from gravity drainage of the overlying glacial till. The dense nature of the till

ensures that downward leakage is minimal. These observations are verified through examination of the water levels where wells are nested.

2.0 Figures Discussion

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and HMSP monitoring network are depicted in **Figure 1**.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured during the June 2026 groundwater sampling event is included in **Figure 2**. **Figure 2** indicates a generally northwesterly groundwater flow direction. The water elevation measured in monitoring well MW-21 indicates a more northeasterly flow direction east of the waste mass. **Figure 2** also includes leachate level data measured in May 2026, although the leachate level data are not reflected in the groundwater contours. Based on the leachate elevations compared to the interpolated groundwater contours, it appears that leachate mounding may be occurring. However, it is not known whether the leachate elevations measured in the leachate piezometers are the result of the intersection of perched leachate zones within the waste mass or a fully saturated waste mass in the vicinity of the monitoring point. It is also not known whether the leachate is in direct hydraulic communication with the water table or is perched above the water table within the waste mass.

3.0 Standards History Graphs

Standards history graphs are included in **Appendix E**. No graphs were provided for antimony, beryllium, chromium, selenium, silver, and thallium, as these constituents have not been detected in former background monitoring well MW-12 or current background monitoring well MW-21. As stated in the 2022 AWQR, dated June 21, 2022 (Doc #103463), background monitoring well MW-12 was added to the assessment monitoring program during the 2022 reporting period due to intermittent measurements of tetrachloroethene. Due to the limited number of detections in monitoring well MW-12 and the similarity of measured concentrations at MW-12 to the HMSP monitoring wells in the detection monitoring program, the inorganic parameters measured in monitoring well MW-12 appear to be appropriate for background. Monitoring well MW-21 was installed in 2025 to replace MW-12 as the background monitoring well. Standards history graphs for the following parameters are included.

- Arsenic
- Barium
- Cadmium
- Cobalt
- Copper
- Lead
- Nickel
- Vanadium
- Zinc

The prediction limits were below the GWPSs for the included graphs except for cobalt. The cobalt concentration at monitoring well MW-21 during the January 2026 sampling event,

0.00266 mg/L, exceeded the state-wide standard GWPS of 0.0021 mg/L. The cobalt concentration of MW-21 during the June 2026 sampling event was a non-detect.

4.0 QA/QC Summary

The quality assurance/quality control (QA/QC) program for the Landfill followed protocols similar to those 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 a review of sample handling, analytical sensitivity, blanks, accuracy, and precision. Based on the QA review, no samples were rejected as unusable due to QC failures. In general, the quality of the analytical data for this reporting period does not appear to have been compromised by analytical irregularities and results affected by QC anomalies are qualified with the appropriate data flags, which are listed in the laboratory analytical data sheet in **Appendix B-1**. Data validation documentation can be found in **Appendix B-2**.

5.0 Data Evaluation and Summary

Detection and assessment/corrective action monitoring statistical evaluations in accordance with the requirements of IAC 567-101.110(5) and 101.110(6) were conducted for the groundwater analytical data collected during the January and June 2026 sampling events. The statistical evaluation for samples collected during the reporting period is located in Appendix D, 2026 Statistical Method and Output, of this report.

5.1 DATA EVALUATION

Detection monitoring wells MW-5, MW-14, and MW-19 were sampled for Appendix I metals and TSS. None of the detected metals exceeded a GWPS. SSIs for nickel in monitoring wells MW-14 and MW-19 indicated during the 2025 statistical evaluation were retested in January 2026. The nickel concentration in MW-19 was below the prediction limit, so the indicated SSI was not confirmed.

Monitoring well MW-14 had a statistically significant increase (SSI) above background for nickel indicated in the last three statistical evaluations (2024-2026). However, the last three total suspended solids (TSS) concentrations in samples collected from monitoring well MW-14 (1 in 2025 and 2 in 2026) are the highest in the period of record, dating back to 2014. It appears likely that elevated TSS concentrations are contributing to elevated nickel concentrations. It is recommended not to confirm the nickel SSI indicated in monitoring well MW-14 until a representative sample is collected.

Assessment monitoring well MW-3 had detections of three metals and two VOCs, while assessment monitoring well MW-12 had detections of barium and vanadium only. Four metals and two VOCs were detected in corrective action monitoring well MW-16. No detected VOCs were above the associated GWPSs. It should be noted that cobalt, with an SSL above the GWPS in monitoring well MW-16, was not measured above the reporting limit in MW-16 during this reporting period.

Background monitoring well MW-21 was sampled for the second and third time during this reporting period. Arsenic, barium, cobalt, nickel, and vanadium were detected. Cobalt was measured above the GWPS in the January 2026 sampling event but was not detected during the June 2026 sampling event. No VOCs were detected. Background sampling will continue for monitoring well MW-21 in 2027.

Monitoring results for monitoring well MW-20, located downgradient of corrective action monitoring well MW-16 to delineate the area of impact near MW-16, were non detect for cobalt and a J flag for arsenic, indicating the extent of impact near MW-16 is defined.

5.2 LEACHATE LEVELS

Landfill staff measure leachate levels. A biannual measurement frequency was approved in correspondence dated March 20, 2018 (Doc #91830).

Leachate head levels have remained generally consistent since 2009. The leachate thicknesses in each piezometer were generally within the historical range during this reporting period, although the thickness in leachate piezometer PZ-4 was slightly above the historical range if the spike in 2015 is discounted. A table and time-series graphs of the reporting period and historical leachate levels are included in **Appendix F**.

5.3 LANDFILL GAS MONITORING SUMMARY

Monitoring of the landfill gas probes was performed in June 2026 by SCS staff. No methane was detected. Apart from a single March 2025 detection of 3% of the lower explosive limit in LFGW-2, no methane has been detected in the landfill gas probes installed in October 2020. The 2nd semi-annual monitoring event results for the landfill gas probes will be submitted in the 2027 Annual Water Quality Report.

Quarterly methane monitoring of the facility structures was performed by facility staff in February, May, and August 2026. No methane was detected in facility structures during the first, second, and third quarters of 2026. The 4th quarter 2026 monitoring event results of facility structures will be submitted in the 2027 Annual Water Quality Report.

A summary of gas monitoring results is included in **Table 12**. A map of the methane monitoring locations is included in **Figure 3**.

6.0 Recommendations

6.1 SITE IMPACT ON GROUNDWATER

Groundwater conditions at the Landfill are generally stable. Trace concentrations of VOCs are consistently detected at monitoring wells MW-3, MW-12, and MW-16. The area of impact of arsenic and cobalt near monitoring well MW-16 is defined by non-detect or trace concentrations at monitoring well MW-20. Two GWPS exceedances were measured during this reporting period – arsenic in corrective action monitoring well MW-16 and cobalt in background monitoring well MW-21.

6.2 PROPOSED MONITORING

Monitoring is proposed to continue in 2027 as summarized in the attached **Table 2**. Background sampling for background monitoring well MW-21 will continue.

6.3 PROPOSED MONITORING WELL CHANGES

No changes to the monitoring network are proposed.

TABLES

Table 1
Monitoring Program Summary
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Monitoring Well	Formation[1]	Current Monitoring Program	Change for next sampling event	Constituents with SSIs during the 2026 Reporting Period	Constituents with SSLs	Total Number of Samples in Each Monitoring Program since March 2010		
						Detection	Assessment	Corrective Action
HMSP Monitoring Wells								
MW-21	Till/Sand	Background	Background Collection	Not applicable	Not applicable	3		
MW-3	Till	Assessment	None	Chlorobenzene, cis-1,2-Dichloroethene	None		27	
MW-5	Till	Detection	None	None	Not applicable	27		
MW-12	Sandy till	Assessment	None	None	None		27	
MW-14	Sandy till	Detection	None	Nickel*	Not applicable	26		
MW-16	Sandy till	Corrective Action	None	Arsenic, Nickel, Benzene, Toluene	Arsenic, Cobalt			27
MW-19	Sandy till	Detection	None	None	Not applicable	28		
Other Monitoring Wells								
MW-20	Till	Impact Delineation for MW-16	None					

Notes:

(1) Obtained from 1991 *Hydrogeologic Investigation and Monitoring System Plan* (Doc #34517).

(2) Inorganic data for the background for the detection monitoring program is from former background monitoring well MW-12 and current background well MW-21.

* - Not confirmed. See discussion in Report Priority.

SSI = Statistically Significant Increase above background.

SSL = Statistically Significant Level above a groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	January 2026	June 2026	2027 Annual Event	2028 Annual Event	Previously Collected	Next Event
MW-21	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	-	Not applicable
MW-3		Appendix I, TSS	Appendix II, TSS	Appendix I, TSS	3/2011, 3/2012, 4/2017, 4/2022	2027
MW-5		Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-12		Appendix I, TSS	Appendix II, TSS	Appendix I, TSS	4/2013, 4/2014, 4/2022	2027
MW-14	Nickel, TSS	Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-16		Appendix I, TSS	Appendix II, TSS	Appendix I, TSS	3/2011, 3/2012, 4/2017, 4/2022	2027
MW-19	Nickel, TSS	Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-20		Arsenic, Cobalt, TSS	Arsenic, Cobalt, TSS	Arsenic, Cobalt, TSS	-	Not applicable

Notes:
TSS - Total Suspended Solids.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-35C

Compliance with:	2024	2025	2026	2027	2028
567 IAC 101.211(2)"*a* " high and low water levels[1]	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 101.211(2)"*b* " changes in the hydrologic setting and flow paths[2]	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 101.211(2)"*c* " well depths[1]	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 101.211(2*)"d* " well recharge rates and chemistry (biennial)	-	Completed	-	Scheduled	-
Waste separation from groundwater 101.5(2)	NA	NA	NA	NA	NA

Comments:

(1) - See Table 4.

(2) - See Section 2.2 of this report.

NA - Not applicable. Waste/groundwater separation is not applicable to this facility.

Table 4
Monitoring Well Performance and Maintenance Summary
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements	Maximum Depth
					June 2026	Discrepancy (ft)
MW-21	1244.50*	1221.50	33.0	Groundwater Level (ft)	10.21	1.1
				Groundwater Elevation (ft MSL)	1234.29	
				Measured Well Depth (ft)	31.9	
				Submerged screen	Y	
MW-3	1244.59	1232.10	21.5	Groundwater Level (ft)	11.68	1.0
				Groundwater Elevation (ft MSL)	1232.91	
				Measured Well Depth (ft)	20.5	
				Submerged screen	Y	
MW-5	1217.54	1195.36	32.2	Groundwater Level (ft)	7.90	0.0
				Groundwater Elevation (ft MSL)	1209.64	
				Measured Well Depth (ft)	32.2	
				Submerged screen	Y	
MW-12	1279.38	1259.60	29.9	Groundwater Level (ft)	14.79	1.7
				Groundwater Elevation (ft MSL)	1264.59	
				Measured Well Depth (ft)	28.2	
				Submerged screen	Y	
MW-14	1231.39	1197.50	43.9	Groundwater Level (ft)	29.05	1.9
				Groundwater Elevation (ft MSL)	1202.34	
				Measured Well Depth (ft)	42.0	
				Submerged screen	Y	
MW-16	1198.82	1180.80	28.0	Groundwater Level (ft)	20.25	0.0
				Groundwater Elevation (ft MSL)	1178.57	
				Measured Well Depth (ft)	28.0	
				Submerged screen	N	
MW-19	1207.99	1195.32	27.7	Groundwater Level (ft)	13.70	0.0
				Groundwater Elevation (ft MSL)	1194.29	
				Measured Well Depth (ft)	27.7	
				Submerged screen	N	

Comments:

1) Measured well depths were within 1.9 feet of the installed depths. It appears siltation is not affecting the ability of the monitoring wells to produce samples.

* The MW-21 top of casing elevation was estimated from the Iowa 2020 LiDAR data.

Table 5
Background and GWPS Summary
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Interwell Background/GWPS (MW-12/MW-21)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	28	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00096	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	28	5	0.0005 (1/2 RL)	0.007	0.00209	0.007	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	28	28	0.0447	1.17	0.57935	1.291	PL (P)	2	MCL
Beryllium (Be)	mg/L	28	0	0.0002 (1/2 RL)	0.002 (1/2 RL)	0.00150	< 0.004	DQR	0.004	MCL
Cadmium (Cd)	mg/L	29	1	0.00005 (1/2 RL)	0.0011	0.00034	0.0011	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	28	0	0.0025 (1/2 RL)	0.01 (1/2 RL)	0.00380	< 0.02	DQR	0.1	MCL
Cobalt (Co)	mg/L	28	2	0.0002 (1/2 RL)	0.00608	0.00119	0.00608	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	28	4	0.001 (1/2 RL)	0.0057	0.00226	0.0057	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	28	1	0.00025 (1/2 RL)	0.0047	0.00153	0.0047	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	28	9	0.001 (1/2 RL)	0.0098	0.00361	0.0098	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	28	0	0.00125 (1/2 RL)	0.0025 (1/2 RL)	0.00207	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	28	0	0.00025 (1/2 RL)	0.002 (1/2 RL)	0.00150	< 0.004	DQR	0.1	SWS
Thallium (Tl)	mg/L	28	0	0.0002 (1/2 RL)	0.002 (1/2 RL)	0.00132	< 0.004	DQR	0.002	MCL
Vanadium (V)	mg/L	28	4	0.000431	0.0136	0.00738	0.0136	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	28	6	0.004 (1/2 RL)	0.0405	0.01055	0.0405	PL (NP)	2	SWS

Notes:

* - Indicated J flag. The concentration is below the reporting limit but above the method detection limit; the concentration is estimated.

1) The "Detections" column includes both quantified detections and J flag (estimated) concentrations.

2) Background levels based on calculated prediction limits or reporting limit, as applicable.

3) Water quality results and effectiveness of the statistical data evaluation criteria: Statistical evaluations consist of prediction limits, the double quantification rule, and confidence intervals/confidence bands, as appropriate. Data from the background well is not used for development of the confidence intervals or confidence bands.

4) Changes to the previous statistical method during reporting period: There were no changes to the statistical method during the 2026 reporting period.

5) Re-sampling strategy: Retesting is performed on a 1-of-2 scheme.

6) Justification for data exclusion: Confirmed outliers are excluded from statistical consideration and noted in the Summary of Groundwater Chemistry. Analytical results prior to 2026 can be found in the 2024 Annual Water Quality Report, dated January 29, 2025 (Doc #112043), and the 2025 Annual Water Quality Report, dated January 7, 2026 (Doc #115533).

Acronyms/Abbreviations:

GWPS = Groundwater Protection Standard

RL = Reporting Limit — PL = Prediction Limit

DQR = Double Quantification Rule — NP = Non-Parametric

SSS = Site-Specific GWPS — P = Parametric

SWS = Statewide Standard — MCL = EPA Maximum Contaminant Level

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Constituent	Units	Most Recent Result	Background Standard
MW-16	Benzene	µg/L	0.591	<0.5
	Toluene	µg/L	1.15	<1

Notes:

1) This table represents constituent/well pairs with SSIs indicated during the 2026 reporting period that did not have SSIs indicated during the 2025 reporting period.

Comments:

1) Problems with the current detection network: Monitoring well MW-21 was installed during the previous reporting period to replace monitoring well MW-12 as the background monitoring well. Prediction limits were calculated using MW-12 and MW-21 data.
2) Schedule to implement remedies: None.
3) Alternative constituent or sample frequency changes: None.
4) Significant changes to calculated prediction limits: None.
5) Resampling strategy: Retesting is performed on a 1-of-2 retesting scheme.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-3	Chlorobenzene	µg/L	1.67	< 1	1.152	100	3/26/2012	NA	3/26/2012
	cis-1,2-Dichloroethene	µg/L	3.48	< 1	2.032	70	3/29/2010	NA	3/26/2012
MW-5	None								
MW-12	None								
MW-14	Nickel*	mg/L	0.0106	0.0098	Detection	0.1	9/23/2025	Pending	3/26/2012
MW-16	Arsenic	mg/L	0.0301	0.007	0.006796	0.01	9/23/2025	NA	3/26/2012
	Nickel	mg/L	0.0112	0.098	0.006483	0.1	9/23/2025	NA	3/26/2012
	Benzene	µg/L	0.591	<0.5	0.2664	5	6/17/2026	NA	3/26/2012
	Toluene	µg/L	1.15	<1	0.5	1000	6/17/2026	NA	3/26/2012
MW-19	None								

Notes:

1) Shaded rows denote constituent/well pair with SSI indicated in 2026 that was not indicated in 2025. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2025 and 2026 reporting periods.

2) "Detection" notes a monitoring well in the detection monitoring program. Confidence limits are not calculated for detection monitoring wells.

* - Not confirmed. See discussion in Report Priority.

NA - Not applicable. Retesting is not part of the statistical method for the monitoring program.

Comments:

1) Problems with the current assessment network: None.

2) Proposed remedies: None.

3) Alternative constituent or sample frequency changes: None.

4) Plume delineation strategies: Arsenic and cobalt impact near monitoring well MW-16 is bracketed downgradient by monitoring well MW-20.

5) Property owner notifications: Not applicable.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS		
							1st Year	2nd Year	3rd Year
MW-16	Arsenic	mg/L	0.0301	0.02952	0.01	2011	NA	NA	NA
	Cobalt	mg/L	0.000653*	0.02674	0.0021	2011	NA	NA	NA

Notes:

* - Indicated J flag. The concentration is below the reporting limit but above the method detection limit; the concentration is estimated.

1) The SSLs in monitoring well MW-16 were previously reported.

2) NA indicates Not Applicable. The constituent-monitoring point dataset has not satisfied the statistical requirements of IAC 567-101.10(9)"e"(2), which is identified by the entire confidence interval or any portion of the upper confidence band, as appropriate, being below the GWPS.

Table 9
Summary of Groundwater Chemistry
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

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

Analytical results prior to 2025 can be found in the 2024 Annual Water Quality Report, dated January 29, 2025 (Doc #112043), and the 2025 Annual Water Quality Report, dated January 7, 2026 (Doc #115533).

Table 10
Historical SSI and SSL
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Key

Indicated SSI

SSL

Well	Constituent	2018	2019	2020	2021	2022	2023	2024	2025	2026
MW-3	1,4-Dichlorobenzene									
	Chlorobenzene									
	cis-1,2-Dichloroethene									
	Tetrachloroethene									
MW-12	Benzene									
	cis-1,2-Dichloroethene									
	Tetrachloroethene									
MW-14	Nickel							*	**	**
MW-16	Arsenic									
	Cobalt									
	Nickel									
	Benzene									
	Chlorobenzene									
	cis-1,2-Dichloroethene									
	Chloroethane									
	Toluene									
MW-19	Nickel								***	

Notes:

A detection of a VOC is considered an SSI for the purposes of this table.

* The concentration of nickel in monitoring well MW-14 was likely not representative due to an elevated TSS concentration, which was the highest measured in the monitoring well since 2017, and was therefore not confirmed.

** - Not confirmed. See discussion in Report Priority.

*** - Not confirmed by retesting.

Table 11
Corrective Action Trend Analysis
2026 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Current SSL	Trend	Calculated S	Critical S	Total N	Projected Date to Completion
MW-16	Arsenic	Stable	0	21	8	NA
	Cobalt	Decreasing	-12	21	8	2032

Notes:

N: Number of Samples

S: Mann-Kendall Statistic

In order for the DNR to consider a remedy "completed," the concentration must be below the GWPS for 8 sampling events and remain at that level for 3 years. Therefore, the Completion Date is the Median Sample date plus 7 years (2,555 days) based on the prediction date.

NA: Not Applicable; a completion date cannot be calculated with a stable trend.

Table 12
Gas Monitoring Summary
2026 Gas Monitoring Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Monitoring Points			Monitoring Results (%LEL)							
Name	Type	Description	2/18/2026		5/18/2026		6/17/2026		8/18/2026	
Shop	Indoor	Inside Shop	0		0				0	
Maintenance Building	Indoor	Inside Maintenance Building	0		0				0	
#3. Office	Indoor	Inside Office	0		0				0	
#4. Transfer Station	Indoor	Inside Transfer Station	0		0				0	
#5. HHM Building	Indoor	Inside HHM building	0		0				0	
#6. Recycling Building	Indoor	Inside Recycling Building	0		0				0	
#7. Tire Storage Building	Indoor	Inside Tire Storage Building	0		0				0	
#8. LFGW-1	Gas Probe	Vadose zone near MW-12					0	N		
#9. LFGW-2	Gas Probe	Vadose zone near MW-3					0	N		
#10. LFGW-3	Gas Probe	Vadose zone near MW-19					0	N		
#11. LFGW-4	Gas Probe	Vadose zone west of waste mass					0	Y		

Notes:

S(Y/N) - Was screen submerged, yes or no or blank is non-applicable.

There were no action limit exceedances during this reporting period.

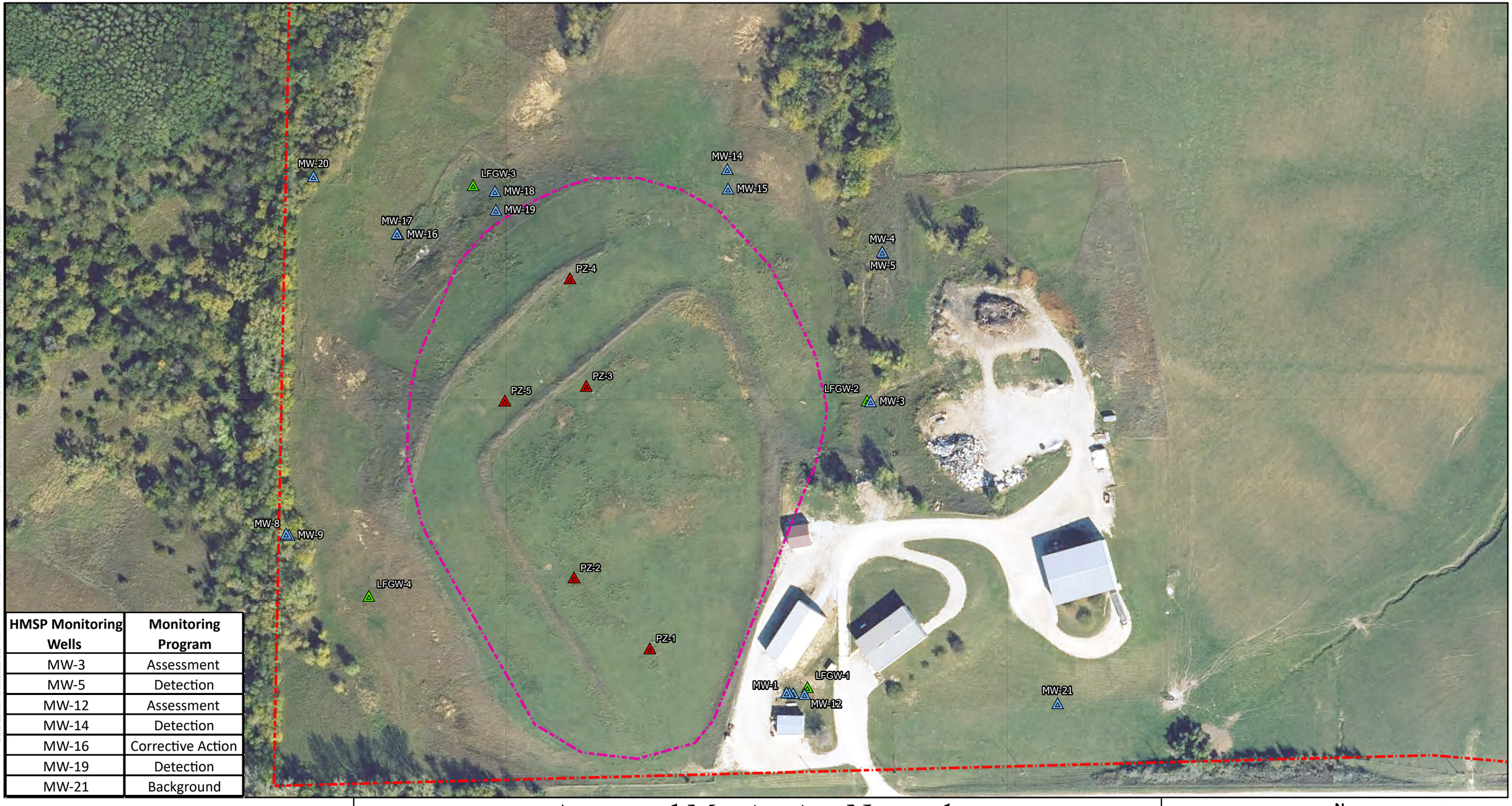
Structure monitoring is performed by facility staff.

Gas probe monitoring is performed by SCS.

A Methane Monitoring Map is included in Figure 3.

The 2nd semi-annual vadose zone monitoring and 4th quarter structure monitoring results will be included in the 2027 Annual Water Quality Report.

FIGURES



HMSP Monitoring Wells	Monitoring Program
MW-3	Assessment
MW-5	Detection
MW-12	Assessment
MW-14	Detection
MW-16	Corrective Action
MW-19	Detection
MW-21	Background

SCS ENGINEERS
environmental consultants and contractors

Approved Monitoring Network

Legend

- Approximate Monitoring Well Location
- Approximate Methane Monitoring Point Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.26
Drawing Date: August 2026

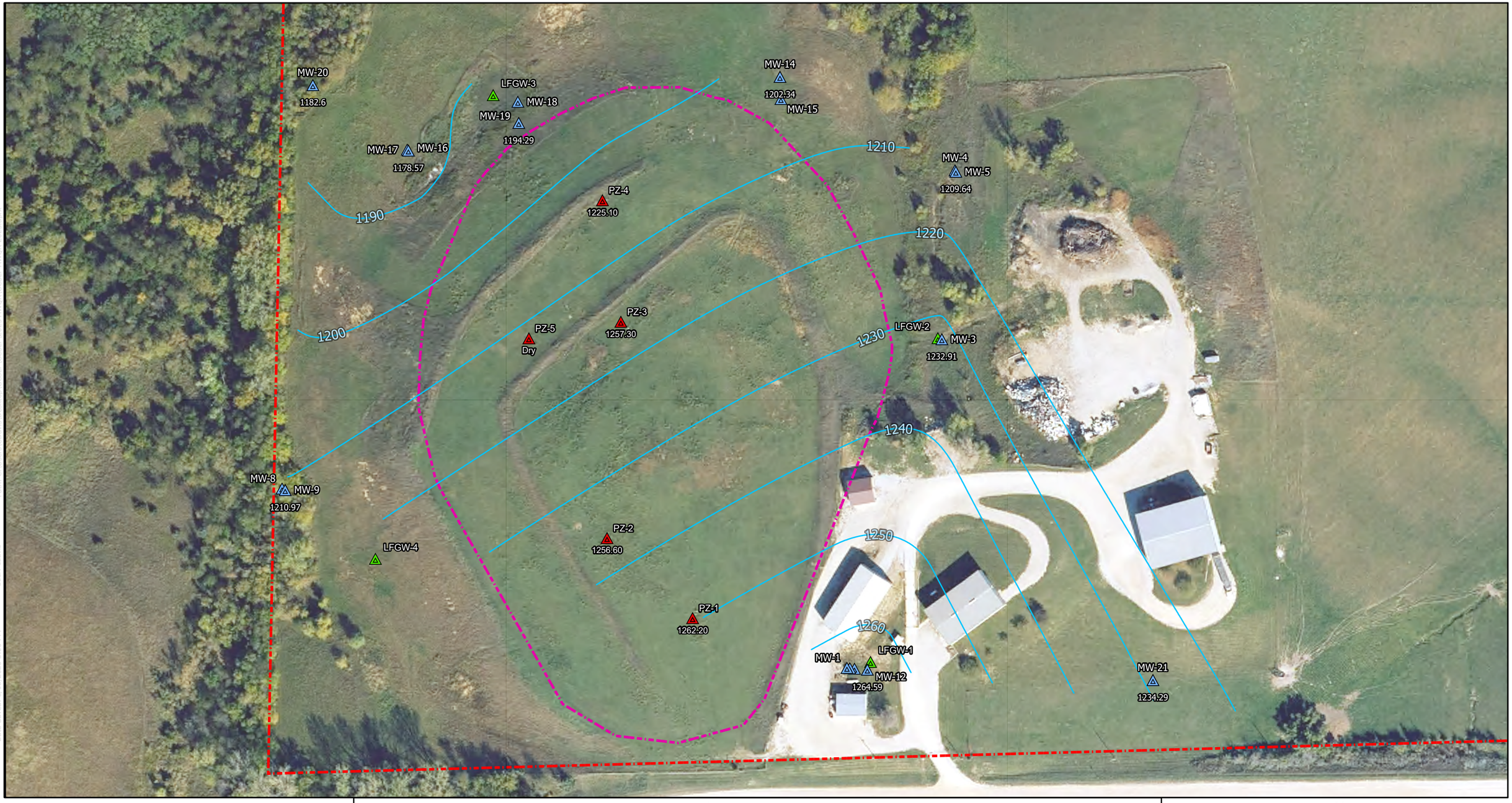
Figure 1

N
W E
S

0 75 150 300 450
Feet

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

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User: cdavis
Date Saved: 8/18/2026 1:57 PM



SCS ENGINEERS
environmental consultants and contractors

Groundwater Contours

Legend

- Approximate Groundwater Contours Based on Elevations Taken on June 17, 2026
- Approximate Methane Monitoring Point Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

*Leachate levels measured by Landfill staff in May 2025 were not used in groundwater contour development.

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.26
Drawing Date: August 2026

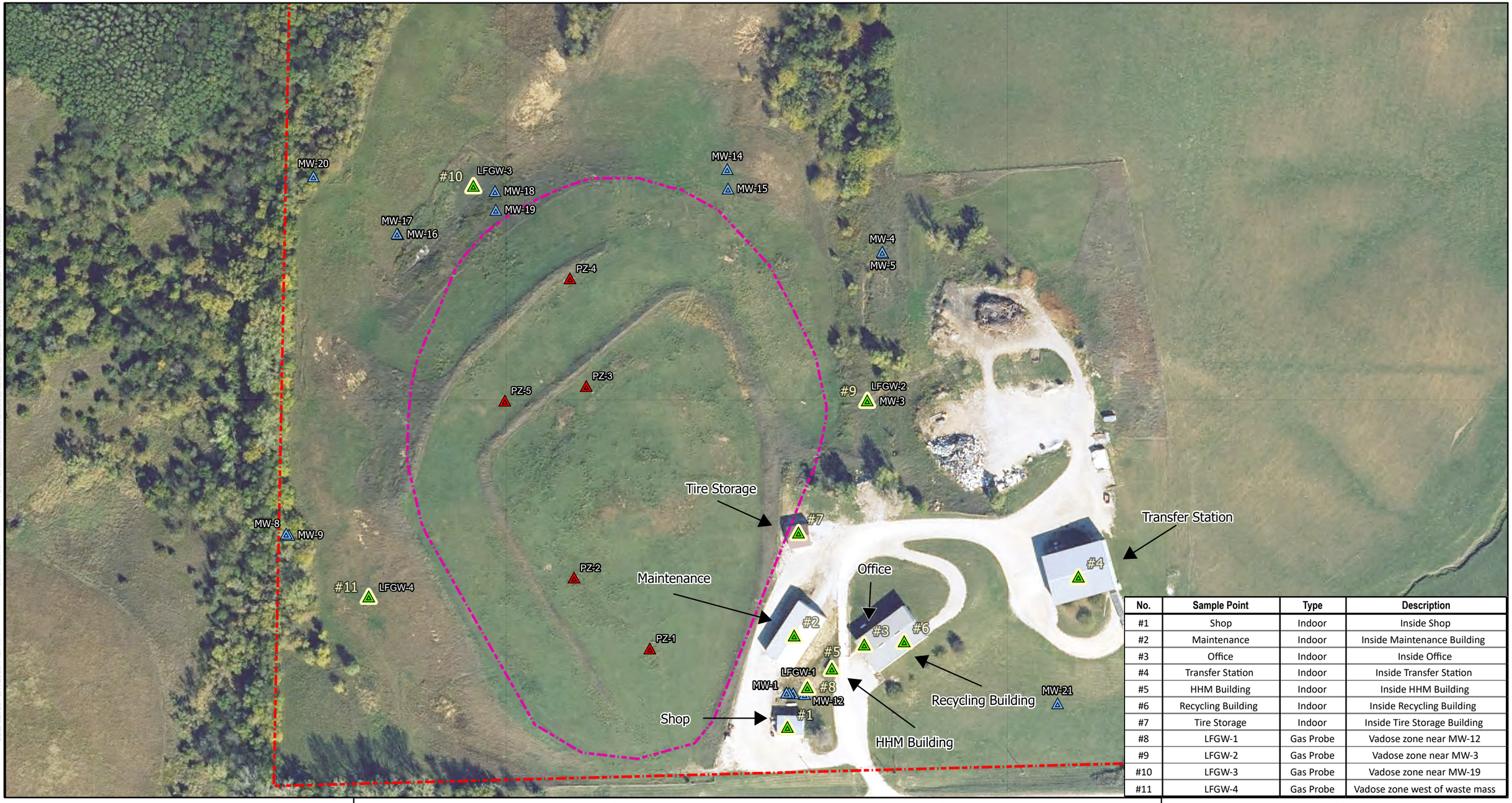
N
W E
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0 65 130 260 390
Feet

Figure 2

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

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No.	Sample Point	Type	Description
#1	Shop	Indoor	Inside Shop
#2	Maintenance	Indoor	Inside Maintenance Building
#3	Office	Indoor	Inside Office
#4	Transfer Station	Indoor	Inside Transfer Station
#5	HHM Building	Indoor	Inside HHM Building
#6	Recycling Building	Indoor	Inside Recycling Building
#7	Tire Storage	Indoor	Inside Tire Storage Building
#8	LFGW-1	Gas Probe	Vadose zone near MW-12
#9	LFGW-2	Gas Probe	Vadose zone near MW-3
#10	LFGW-3	Gas Probe	Vadose zone near MW-19
#11	LFGW-4	Gas Probe	Vadose zone west of waste mass

SCS ENGINEERS
environmental consultants and contractors

Methane Monitoring Network

Legend

- Approximate Monitoring Well Location
- Methane Monitoring Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.26
Drawing Date: August 2026

Figure 3

N W E S

0 75 150 300 450 Feet

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, CGIAR, USGS, USDA NAIP, Iowa State University GIS Facility

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Date Saved: 1/7/2026 7:27 AM

APPENDIX A | FIELD SAMPLING FORMS

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**1/12/2026**
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):	42.7
Initial Static Water Level (feet):	27.40
Initial Groundwater Elevation (ft-amsl):	1203.99
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:51 PM	Purging start time.						
12:54 PM	12.4	1.0	2259.1	6.65	114.2	22.2	
12:57 PM	12.7	0.6	2261.7	6.65	52.7	32.1	
1:00 PM	13.0	0.5	2265.9	6.65	45.0	34.0	
1:03 PM	13.0	0.5	2271.3	6.65	58.7	38.9	
	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-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-19**	Date:	**1/12/2026**
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):	27.6
Initial Static Water Level (feet):	8.18
Initial Groundwater Elevation (ft-amsl):	1199.81
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:20 PM	Purging start time.						
12:23 PM	12.5	0.8	1229.1	6.58	134.6	5.3	
12:26 PM	12.4	0.4	1223.9	6.56	131.7	3.5	
12:29 PM	12.3	0.3	1216.9	6.57	131.6	3.2	
12:32 PM	13.8*	9.63*	7.8*	7.32*	155.5*	8.1*	
	* - Likely anomalous due to recording error.						
	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-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-21**	Date:	**1/12/2026**
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):	32.9
Initial Static Water Level (feet):	10.38
Initial Groundwater Elevation (ft-amsl):	1222.62
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:26 PM	Purging start time.						
1:29 PM	12.7	2.9	1066.9	7.26	156.3	3.3	
1:32 PM	12.7	2.5	1047.0	7.22	143.9	3.2	
1:35 PM	12.7	2.2	1043.2	7.20	118.5	3.3	
1:38 PM	12.7	2.1	1043.3	7.18	86.3	3.5	
	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:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**6/17/2026**
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):	20.5
Initial Static Water Level (feet):	11.68
Initial Groundwater Elevation (ft-amsl):	1232.91
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:55 PM	Purging start time.						
12:58 PM	14.4	1.2	745.6	6.62	225.5	28.9	
1:01 PM	13.6	1.0	753.4	6.61	212.8	36.1	
1:04 PM	13.5	1.3	733.3	6.60	202.8	37.4	
1:07 PM	13.6	1.1	766.5	6.59	194.6	28.7	
	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-None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**6/17/2026**
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):	32.2
Initial Static Water Level (feet):	7.90
Initial Groundwater Elevation (ft-amsl):	1209.64
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:19 PM	Purging start time.						
12:22 PM	14.2	2.1	788.4	7.00	188.7	33.5	
12:25 PM	14.2	1.7	780.9	6.98	179.3	39.4	
12:28 PM	14.4	1.6	777.5	6.97	173.3	23.5	
12:31 PM	14.0	1.6	776.7	6.98	168.8	43.7	
	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-None Duplicate

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**6/17/2026**
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):	28.2
Initial Static Water Level (feet):	14.79
Initial Groundwater Elevation (ft-amsl):	1264.59
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:50 PM	Purging start time.						
1:53 PM	15.2	7.8	582.9	6.96	225.2	29.3	
1:56 PM	14.4	8.2	578.9	6.95	234.2	66.6	
1:59 PM	14.8	8.2	580.6	6.94	240.7	58.6	
2:02 PM	14.3	8.1	574.1	6.94	246.4	71.4	
	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?	No	
If yes, explain:		

Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**6/17/2026**
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):	42.0
Initial Static Water Level (feet):	29.05
Initial Groundwater Elevation (ft-amsl):	1202.34
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:15 AM	Purging start time.						
10:18 AM	13.7	4.7	1572.0	6.92	195.2	113.8	
10:21 AM	13.8	4.7	1569.1	6.91	191.4	110.9	
10:24 AM	13.9	4.4	1567.0	6.91	188.5	105.1	
10:27 AM	13.9	4.2	1562.5	6.90	180.6	94.7	
	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?	No	
If yes, explain:		

Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**6/17/2026**
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):	28.0
Initial Static Water Level (feet):	20.25
Initial Groundwater Elevation (ft-amsl):	1178.57
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:48 AM	Purging start time.						
10:51 AM	15.2	1.3	1356.3	6.47	-60.5	11.4	
10:54 AM	14.9	0.6	1361.0	6.48	-80.6	10.9	
10:57 AM	15.2	0.4	1359.5	6.46	-88.6	9.9	
11:00 AM	15.2	0.3	1364.5	6.46	-93.5	10.5	
	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-Chemical

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-19**	Date:	**6/17/2026**
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):	27.7
Initial Static Water Level (feet):	13.70
Initial Groundwater Elevation (ft-amsl):	1194.29
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:40 AM	Purging start time.						
11:43 AM	14.9	1.0	854.8	6.60	124.5	15.9	
11:46 AM	14.9	0.4	859.7	6.61	103.2	32.0	
11:49 AM	14.6	0.3	865.0	6.61	92.2	71.5	
11:52 AM	14.5	0.2	862.7	6.61	85.9	103.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-20**	Date:	**6/17/2026**
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):	33.4
Initial Static Water Level (feet):	17.00
Initial Groundwater Elevation (ft-amsl):	1182.60
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:16 AM	Purging start time.						
11:19 AM	14.3	1.9	387.0	6.65	-41.7	18.0	
11:22 AM	14.0	1.5	380.8	6.58	-16.1	44.9	
11:25 AM	14.8	1.4	379.1	6.55	1.7	138.6	
11:28 AM	13.8	1.3	375.1	6.54	15.7	118.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

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

Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-21**	Date:	**6/17/2026**
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):	31.9
Initial Static Water Level (feet):	10.21
Initial Groundwater Elevation (ft-amsl):	1222.79
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 Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:23 PM	Purging start time.						
1:26 PM	17.1	0.4	766.0	7.11	201.4	46.8	
1:29 PM	16.7	0.2	755.2	7.10	184.5	51.0	
1:32 PM	15.6	0.2	754.5	7.10	172.5	69.2	
1:35 PM	16.0	0.2	748.3	7.08	163.5	65.4	
	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-Clear Odor-None

APPENDIX B-1 | LABORATORY ANALYTICAL DATA SHEETS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/20/2026 3:33:22 PM

JOB DESCRIPTION

Guthrie County January 2026 Retest
Guthrie County Sanitary Landfill

JOB NUMBER

310-323909-1

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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Authorized for release by
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Job Narrative
310-323909-1

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 1/13/2026 5:00 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 0.2°C.

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

Metals
Method 6020B: The laboratory control sample (LCS) for preparation batch 310-478423 and analytical batch 310-478702 recovered outside control limits for the following analytes: silver. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 6020B: The method blank for preparation batch 310-478423 contained chromium above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-323909-1	MW-14	Water	01/12/26 13:10	01/13/26 17:00	Iowa
310-323909-2	MW-19	Water	01/12/26 12:40	01/13/26 17:00	Iowa
310-323909-3	MW-21	Water	01/12/26 13:41	01/13/26 17:00	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-14 — Lab Sample ID: 310-323909-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.0166		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	97.0		15.0	10.5	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-323909-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.00549		0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 310-323909-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00243		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0488		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00266		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00618		0.00500	0.00230	mg/L	1		6020B	Total/NA
Vanadium	0.00189	J	0.00500	0.00170	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.75	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-14

Date Collected: 01/12/26 13:10
Date Received: 01/13/26 17:00

Lab Sample ID: 310-323909-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.0166		0.00500	0.00230	mg/L		01/15/26 08:56	01/16/26 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	97.0		15.0	10.5	mg/L			01/14/26 08:33	1

Client Sample Results

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-19

Date Collected: 01/12/26 12:40
Date Received: 01/13/26 17:00

Lab Sample ID: 310-323909-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.00549		0.00500	0.00230	mg/L		01/15/26 08:56	01/16/26 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			01/14/26 10:39	1

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-21
Date Collected: 01/12/26 13:41
Date Received: 01/13/26 17:00

Lab Sample ID: 310-323909-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			01/14/26 14:34	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			01/14/26 14:34	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			01/14/26 14:34	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			01/14/26 14:34	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			01/14/26 14:34	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			01/14/26 14:34	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			01/14/26 14:34	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			01/14/26 14:34	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			01/14/26 14:34	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			01/14/26 14:34	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			01/14/26 14:34	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			01/14/26 14:34	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			01/14/26 14:34	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			01/14/26 14:34	1
2-Hexanone	<10.0		10.0	3.80	ug/L			01/14/26 14:34	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			01/14/26 14:34	1
Acetone	<10.0		10.0	3.80	ug/L			01/14/26 14:34	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			01/14/26 14:34	1
Benzene	<0.500		0.500	0.220	ug/L			01/14/26 14:34	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			01/14/26 14:34	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			01/14/26 14:34	1
Bromoform	<5.00		5.00	2.60	ug/L			01/14/26 14:34	1
Bromomethane	<4.00		4.00	1.10	ug/L			01/14/26 14:34	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			01/14/26 14:34	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			01/14/26 14:34	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			01/14/26 14:34	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			01/14/26 14:34	1
Chloroethane	<4.00		4.00	0.900	ug/L			01/14/26 14:34	1
Chloroform	<3.00		3.00	1.30	ug/L			01/14/26 14:34	1
Chloromethane	<3.00		3.00	0.610	ug/L			01/14/26 14:34	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			01/14/26 14:34	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			01/14/26 14:34	1
Dibromomethane	<1.00		1.00	0.330	ug/L			01/14/26 14:34	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			01/14/26 14:34	1
Iodomethane	<10.0		10.0	2.60	ug/L			01/14/26 14:34	1
Methylene chloride	<5.00		5.00	1.70	ug/L			01/14/26 14:34	1
Styrene	<1.00		1.00	0.370	ug/L			01/14/26 14:34	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			01/14/26 14:34	1
Toluene	<1.00		1.00	0.430	ug/L			01/14/26 14:34	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			01/14/26 14:34	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			01/14/26 14:34	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			01/14/26 14:34	1
Trichloroethene	<1.00		1.00	0.350	ug/L			01/14/26 14:34	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			01/14/26 14:34	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			01/14/26 14:34	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			01/14/26 14:34	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			01/14/26 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*76 - 130*		*01/14/26 14:34*	*1*

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-21

Date Collected: 01/12/26 13:41
Date Received: 01/13/26 17:00

Lab Sample ID: 310-323909-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/14/26 14:34*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*01/14/26 14:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		01/15/26 08:56	01/16/26 15:05	1
Arsenic	**0.00243**		0.00200	0.000530	mg/L		01/15/26 08:56	01/16/26 15:05	1
Barium	**0.0488**		0.00200	0.000660	mg/L		01/15/26 08:56	01/16/26 15:05	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		01/15/26 08:56	01/16/26 15:05	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		01/15/26 08:56	01/16/26 15:05	1
Chromium	<0.00500		0.00500	0.00180	mg/L		01/15/26 08:56	01/16/26 15:05	1
Cobalt	**0.00266**		0.000500	0.000170	mg/L		01/15/26 08:56	01/16/26 15:05	1
Copper	<0.00500		0.00500	0.00320	mg/L		01/15/26 08:56	01/16/26 15:05	1
Lead	<0.000500		0.000500	0.000330	mg/L		01/15/26 08:56	01/16/26 15:05	1
Nickel	**0.00618**		0.00500	0.00230	mg/L		01/15/26 08:56	01/16/26 15:05	1
Selenium	<0.00500		0.00500	0.00140	mg/L		01/15/26 08:56	01/16/26 15:05	1
Silver	<0.00100	*+	0.00100	0.000500	mg/L		01/15/26 08:56	01/16/26 15:05	1
Thallium	<0.00100		0.00100	0.000570	mg/L		01/15/26 08:56	01/16/26 15:05	1
Vanadium	**0.00189**	**J**	0.00500	0.00170	mg/L		01/15/26 08:56	01/20/26 12:16	1
Zinc	<0.0200		0.0200	0.0130	mg/L		01/15/26 08:56	01/16/26 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**1.75**	**J**	1.88	1.31	mg/L			01/14/26 08:33	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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

Surrogate Summary

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		DBFM	TOL	BFB						
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)						
310-323909-3	MW-21	102	98	106						
310-323909-3 MS	MW-21	109	101	100						
310-323909-3 MSD	MW-21	108	101	102						
LCS 310-478344/6	Lab Control Sample	110	101	101						
LCS 310-478344/7	Lab Control Sample	108	100	107						
MB 310-478344/5	Method Blank	106	101	105						

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-478344/5
Matrix: Water
Analysis Batch: 478344

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			01/14/26 09:18	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			01/14/26 09:18	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			01/14/26 09:18	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			01/14/26 09:18	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			01/14/26 09:18	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			01/14/26 09:18	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			01/14/26 09:18	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			01/14/26 09:18	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			01/14/26 09:18	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			01/14/26 09:18	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			01/14/26 09:18	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			01/14/26 09:18	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			01/14/26 09:18	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			01/14/26 09:18	1
2-Hexanone	<10.0		10.0	3.80	ug/L			01/14/26 09:18	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			01/14/26 09:18	1
Acetone	<10.0		10.0	3.80	ug/L			01/14/26 09:18	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			01/14/26 09:18	1
Benzene	<0.500		0.500	0.220	ug/L			01/14/26 09:18	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			01/14/26 09:18	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			01/14/26 09:18	1
Bromoform	<5.00		5.00	2.60	ug/L			01/14/26 09:18	1
Bromomethane	<4.00		4.00	1.10	ug/L			01/14/26 09:18	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			01/14/26 09:18	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			01/14/26 09:18	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			01/14/26 09:18	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			01/14/26 09:18	1
Chloroethane	<4.00		4.00	0.900	ug/L			01/14/26 09:18	1
Chloroform	<3.00		3.00	1.30	ug/L			01/14/26 09:18	1
Chloromethane	<3.00		3.00	0.610	ug/L			01/14/26 09:18	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			01/14/26 09:18	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			01/14/26 09:18	1
Dibromomethane	<1.00		1.00	0.330	ug/L			01/14/26 09:18	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			01/14/26 09:18	1
Iodomethane	<10.0		10.0	2.60	ug/L			01/14/26 09:18	1
Methylene chloride	<5.00		5.00	1.70	ug/L			01/14/26 09:18	1
Styrene	<1.00		1.00	0.370	ug/L			01/14/26 09:18	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			01/14/26 09:18	1
Toluene	<1.00		1.00	0.430	ug/L			01/14/26 09:18	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			01/14/26 09:18	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			01/14/26 09:18	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			01/14/26 09:18	1
Trichloroethene	<1.00		1.00	0.350	ug/L			01/14/26 09:18	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			01/14/26 09:18	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			01/14/26 09:18	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			01/14/26 09:18	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			01/14/26 09:18	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-478344/5
Matrix: Water
Analysis Batch: 478344

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*106*		*76 - 130*		*01/14/26 09:18*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*01/14/26 09:18*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*01/14/26 09:18*	*1*

Lab Sample ID: LCS 310-478344/6
Matrix: Water
Analysis Batch: 478344

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.46		ug/L		92	70 - 121
1,1,1-Trichloroethane	20.0	20.22		ug/L		101	69 - 130
1,1,2,2-Tetrachloroethane	20.0	18.47		ug/L		92	70 - 122
1,1,2-Trichloroethane	20.0	16.48		ug/L		82	75 - 121
1,1-Dichloroethane	20.0	19.84		ug/L		99	69 - 127
1,1-Dichloroethene	20.0	18.46		ug/L		92	64 - 134
1,2,3-Trichloropropane	20.0	18.57		ug/L		93	70 - 122
1,2-Dibromo-3-chloropropane	20.0	19.97		ug/L		100	62 - 132
1,2-Dibromoethane (EDB)	20.0	17.29		ug/L		86	74 - 122
1,2-Dichlorobenzene	20.0	18.28		ug/L		91	74 - 120
1,2-Dichloroethane	20.0	19.20		ug/L		96	68 - 125
1,2-Dichloropropane	20.0	17.15		ug/L		86	72 - 128
1,4-Dichlorobenzene	20.0	18.54		ug/L		93	72 - 120
2-Butanone (MEK)	40.0	33.78		ug/L		84	60 - 134
2-Hexanone	40.0	41.30		ug/L		103	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	41.78		ug/L		104	62 - 136
Acetone	40.0	35.71		ug/L		89	59 - 136
Acrylonitrile	200	214.2		ug/L		107	50 - 150
Benzene	20.0	17.59		ug/L		88	71 - 125
Bromochloromethane	20.0	20.97		ug/L		105	69 - 131
Bromodichloromethane	20.0	19.51		ug/L		98	70 - 122
Bromoform	20.0	17.98		ug/L		90	62 - 122
Carbon disulfide	20.0	19.91		ug/L		100	58 - 137
Carbon tetrachloride	20.0	19.14		ug/L		96	63 - 136
Chlorobenzene	20.0	17.93		ug/L		90	74 - 120
Chlorodibromomethane	20.0	17.50		ug/L		88	69 - 121
Chloroform	20.0	21.10		ug/L		105	72 - 122
cis-1,2-Dichloroethene	20.0	19.31		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	17.29		ug/L		86	72 - 123
Dibromomethane	20.0	19.54		ug/L		98	72 - 122
Ethylbenzene	20.0	18.96		ug/L		95	75 - 120
Iodomethane	20.0	17.87		ug/L		89	18 - 150
Methylene chloride	20.0	21.40		ug/L		107	72 - 128
Styrene	20.0	19.71		ug/L		99	74 - 122
Tetrachloroethene	20.0	18.45		ug/L		92	70 - 128
Toluene	20.0	18.33		ug/L		92	74 - 120
trans-1,2-Dichloroethene	20.0	19.31		ug/L		97	67 - 127
trans-1,3-Dichloropropene	20.0	18.58		ug/L		93	67 - 123
trans-1,4-Dichloro-2-butene	20.0	20.52		ug/L		103	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-478344/6
Matrix: Water
Analysis Batch: 478344

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Trichloroethene			20.0	16.95		ug/L		85	70 - 128		
Vinyl acetate			40.0	35.18		ug/L		88	50 - 150		
Xylenes, Total			40.0	38.42		ug/L		96	74 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*110*		*76 - 130*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Lab Sample ID: LCS 310-478344/7
Matrix: Water
Analysis Batch: 478344

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromomethane			20.0	19.87		ug/L		99	33 - 138		
Chloroethane			20.0	21.49		ug/L		107	59 - 139		
Chloromethane			20.0	21.62		ug/L		108	52 - 146		
Trichlorofluoromethane			20.0	22.95		ug/L		115	55 - 150		
Vinyl chloride			20.0	21.47		ug/L		107	60 - 142		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*76 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*

Lab Sample ID: 310-323909-3 MS
Matrix: Water
Analysis Batch: 478344

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.54		ug/L		86	55 - 121		
1,1,1-Trichloroethane	<1.00		25.0	23.24		ug/L		93	53 - 130		
1,1,2,2-Tetrachloroethane	<1.00		25.0	21.62		ug/L		86	55 - 123		
1,1,2-Trichloroethane	<1.00		25.0	19.81		ug/L		79	60 - 121		
1,1-Dichloroethane	<1.00		25.0	22.45		ug/L		90	53 - 127		
1,1-Dichloroethene	<2.00		25.0	22.32		ug/L		89	51 - 134		
1,2,3-Trichloropropane	<1.00		25.0	21.61		ug/L		86	56 - 122		
1,2-Dibromo-3-chloropropane	<5.00		25.0	21.16		ug/L		85	44 - 138		
1,2-Dibromoethane (EDB)	<1.00		25.0	20.08		ug/L		80	60 - 122		
1,2-Dichlorobenzene	<1.00		25.0	20.64		ug/L		83	60 - 120		
1,2-Dichloroethane	<1.00		25.0	22.34		ug/L		89	48 - 128		
1,2-Dichloropropane	<1.00		25.0	20.45		ug/L		82	59 - 128		
1,4-Dichlorobenzene	<1.00		25.0	21.72		ug/L		87	58 - 120		
2-Butanone (MEK)	<10.0		50.0	38.80		ug/L		78	46 - 134		
2-Hexanone	<10.0		50.0	47.99		ug/L		96	46 - 141		
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	48.91		ug/L		98	49 - 138		
Acetone	<10.0		50.0	49.63		ug/L		99	39 - 141		
Acrylonitrile	<5.00		250	244.9		ug/L		98	41 - 150		

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-323909-3 MS
Matrix: Water
Analysis Batch: 478344

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.500		25.0	20.26		ug/L		81	48 - 125
Bromochloromethane	<5.00		25.0	24.48		ug/L		98	55 - 131
Bromodichloromethane	<1.00		25.0	22.31		ug/L		89	53 - 122
Bromoform	<5.00		25.0	21.52		ug/L		86	47 - 122
Carbon disulfide	<1.00		25.0	25.17		ug/L		101	45 - 137
Carbon tetrachloride	<2.00		25.0	22.52		ug/L		90	45 - 136
Chlorobenzene	<1.00		25.0	20.92		ug/L		84	59 - 120
Chlorodibromomethane	<5.00		25.0	21.03		ug/L		84	53 - 121
Chloroform	<3.00		25.0	24.35		ug/L		97	52 - 122
cis-1,2-Dichloroethene	<1.00		25.0	22.38		ug/L		90	51 - 123
cis-1,3-Dichloropropene	<5.00		25.0	19.22		ug/L		77	55 - 123
Dibromomethane	<1.00		25.0	23.04		ug/L		92	57 - 122
Ethylbenzene	<1.00		25.0	21.89		ug/L		88	53 - 120
Iodomethane	<10.0		25.0	20.56		ug/L		82	18 - 150
Methylene chloride	<5.00		25.0	24.79		ug/L		99	59 - 128
Styrene	<1.00		25.0	23.76		ug/L		95	50 - 125
Tetrachloroethene	<1.00		25.0	20.68		ug/L		83	51 - 128
Toluene	<1.00		25.0	20.66		ug/L		83	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	22.45		ug/L		90	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	21.81		ug/L		87	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	21.72		ug/L		87	28 - 150
Trichloroethene	<1.00		25.0	20.18		ug/L		81	50 - 128
Vinyl acetate	<10.0		50.0	32.67		ug/L		65	31 - 150
Xylenes, Total	<3.00		50.0	44.27		ug/L		89	50 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*109*		*76 - 130*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

Lab Sample ID: 310-323909-3 MSD
Matrix: Water
Analysis Batch: 478344

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.42		ug/L		86	55 - 121	1	20
1,1,1-Trichloroethane	<1.00		25.0	22.95		ug/L		92	53 - 130	1	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	22.22		ug/L		89	55 - 123	3	20
1,1,2-Trichloroethane	<1.00		25.0	20.81		ug/L		83	60 - 121	5	20
1,1-Dichloroethane	<1.00		25.0	22.03		ug/L		88	53 - 127	2	20
1,1-Dichloroethene	<2.00		25.0	21.89		ug/L		88	51 - 134	2	20
1,2,3-Trichloropropane	<1.00		25.0	22.24		ug/L		89	56 - 122	3	21
1,2-Dibromo-3-chloropropane	<5.00		25.0	23.16		ug/L		93	44 - 138	9	24
1,2-Dibromoethane (EDB)	<1.00		25.0	20.26		ug/L		81	60 - 122	1	20
1,2-Dichlorobenzene	<1.00		25.0	21.83		ug/L		87	60 - 120	6	20
1,2-Dichloroethane	<1.00		25.0	21.89		ug/L		88	48 - 128	2	20
1,2-Dichloropropane	<1.00		25.0	20.60		ug/L		82	59 - 128	1	20
1,4-Dichlorobenzene	<1.00		25.0	22.10		ug/L		88	58 - 120	2	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-323909-3 MSD
Matrix: Water
Analysis Batch: 478344

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	40.70		ug/L		81	46 - 134	5	23
2-Hexanone	<10.0		50.0	48.97		ug/L		98	46 - 141	2	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	49.91		ug/L		100	49 - 138	2	20
Acetone	<10.0		50.0	49.39		ug/L		99	39 - 141	0	23
Acrylonitrile	<5.00		250	255.5		ug/L		102	41 - 150	4	20
Benzene	<0.500		25.0	20.23		ug/L		81	48 - 125	0	20
Bromochloromethane	<5.00		25.0	24.20		ug/L		97	55 - 131	1	21
Bromodichloromethane	<1.00		25.0	22.47		ug/L		90	53 - 122	1	20
Bromoform	<5.00		25.0	22.28		ug/L		89	47 - 122	3	20
Carbon disulfide	<1.00		25.0	22.09		ug/L		88	45 - 137	13	24
Carbon tetrachloride	<2.00		25.0	22.18		ug/L		89	45 - 136	2	20
Chlorobenzene	<1.00		25.0	20.72		ug/L		83	59 - 120	1	20
Chlorodibromomethane	<5.00		25.0	21.26		ug/L		85	53 - 121	1	20
Chloroform	<3.00		25.0	24.30		ug/L		97	52 - 122	0	20
cis-1,2-Dichloroethene	<1.00		25.0	22.46		ug/L		90	51 - 123	0	20
cis-1,3-Dichloropropene	<5.00		25.0	19.33		ug/L		77	55 - 123	1	20
Dibromomethane	<1.00		25.0	22.76		ug/L		91	57 - 122	1	20
Ethylbenzene	<1.00		25.0	21.51		ug/L		86	53 - 120	2	20
Iodomethane	<10.0		25.0	21.93		ug/L		88	18 - 150	6	32
Methylene chloride	<5.00		25.0	24.07		ug/L		96	59 - 128	3	20
Styrene	<1.00		25.0	23.40		ug/L		94	50 - 125	2	20
Tetrachloroethene	<1.00		25.0	20.68		ug/L		83	51 - 128	0	20
Toluene	<1.00		25.0	20.55		ug/L		82	52 - 120	1	20
trans-1,2-Dichloroethene	<1.00		25.0	21.96		ug/L		88	53 - 127	2	20
trans-1,3-Dichloropropene	<5.00		25.0	22.15		ug/L		89	50 - 123	2	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	21.48		ug/L		86	28 - 150	1	24
Trichloroethene	<1.00		25.0	19.27		ug/L		77	50 - 128	5	20
Vinyl acetate	<10.0		50.0	33.38		ug/L		67	31 - 150	2	25
Xylenes, Total	<3.00		50.0	44.50		ug/L		89	50 - 122	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*76 - 130*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-478423/1-A
Matrix: Water
Analysis Batch: 478702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478423

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		01/15/26 08:56	01/16/26 14:34	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		01/15/26 08:56	01/16/26 14:34	1
Barium	<0.00200		0.00200	0.000660	mg/L		01/15/26 08:56	01/16/26 14:34	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		01/15/26 08:56	01/16/26 14:34	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		01/15/26 08:56	01/16/26 14:34	1
Chromium	0.002000	J	0.00500	0.00180	mg/L		01/15/26 08:56	01/16/26 14:34	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		01/15/26 08:56	01/16/26 14:34	1

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

Lab Sample ID: MB 310-478423/1-A
Matrix: Water
Analysis Batch: 478702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478423

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.00500		0.00500	0.00320	mg/L		01/15/26 08:56	01/16/26 14:34	1
Lead	<0.000500		0.000500	0.000330	mg/L		01/15/26 08:56	01/16/26 14:34	1
Selenium	<0.00500		0.00500	0.00140	mg/L		01/15/26 08:56	01/16/26 14:34	1
Silver	<0.00100		0.00100	0.000500	mg/L		01/15/26 08:56	01/16/26 14:34	1
Thallium	<0.00100		0.00100	0.000570	mg/L		01/15/26 08:56	01/16/26 14:34	1
Nickel	<0.00500		0.00500	0.00230	mg/L		01/15/26 08:56	01/16/26 14:34	1
Zinc	<0.0200		0.0200	0.0130	mg/L		01/15/26 08:56	01/16/26 14:34	1

Lab Sample ID: MB 310-478423/1-A
Matrix: Water
Analysis Batch: 478882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478423

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.00500		0.00500	0.00170	mg/L		01/15/26 08:56	01/20/26 12:04	1

Lab Sample ID: LCS 310-478423/2-A
Matrix: Water
Analysis Batch: 478702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2143		mg/L		107	80 - 120
Arsenic	0.200	0.1986		mg/L		99	80 - 120
Barium	0.100	0.1031		mg/L		103	80 - 120
Beryllium	0.100	0.09888		mg/L		99	80 - 120
Cadmium	0.100	0.1014		mg/L		101	80 - 120
Chromium	0.100	0.1006		mg/L		101	80 - 120
Cobalt	0.100	0.09952		mg/L		100	80 - 120
Copper	0.200	0.1977		mg/L		99	80 - 120
Lead	0.200	0.2014		mg/L		101	80 - 120
Selenium	0.400	0.3870		mg/L		97	80 - 120
Silver	0.100	0.1225	*+	mg/L		123	80 - 120
Thallium	0.100	0.09495		mg/L		95	80 - 120
Nickel	0.200	0.2004		mg/L		100	80 - 120
Zinc	0.200	0.1993		mg/L		100	80 - 120

Lab Sample ID: LCS 310-478423/2-A
Matrix: Water
Analysis Batch: 478882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478423

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	0.100	0.1003		mg/L		100	80 - 120

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-478348/1
Matrix: Water
Analysis Batch: 478348

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			01/14/26 08:33	1

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: LCS 310-478348/2
Matrix: Water
Analysis Batch: 478348

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	97.00		mg/L		97	82 - 117

Lab Sample ID: MB 310-478386/1
Matrix: Water
Analysis Batch: 478386

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			01/14/26 10:39	1

Lab Sample ID: LCS 310-478386/2
Matrix: Water
Analysis Batch: 478386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	97.00		mg/L		97	82 - 117

QC Association Summary

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

GC/MS VOA

Analysis Batch: 478344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-3	MW-21	Total/NA	Water	8260D	
MB 310-478344/5	Method Blank	Total/NA	Water	8260D	
LCS 310-478344/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-478344/7	Lab Control Sample	Total/NA	Water	8260D	
310-323909-3 MS	MW-21	Total/NA	Water	8260D	
310-323909-3 MSD	MW-21	Total/NA	Water	8260D	

Metals

Prep Batch: 478423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-1	MW-14	Total/NA	Water	3005A	
310-323909-2	MW-19	Total/NA	Water	3005A	
310-323909-3	MW-21	Total/NA	Water	3005A	
MB 310-478423/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-478423/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 478702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-1	MW-14	Total/NA	Water	6020B	478423
310-323909-2	MW-19	Total/NA	Water	6020B	478423
310-323909-3	MW-21	Total/NA	Water	6020B	478423
MB 310-478423/1-A	Method Blank	Total/NA	Water	6020B	478423
LCS 310-478423/2-A	Lab Control Sample	Total/NA	Water	6020B	478423

Analysis Batch: 478882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-3	MW-21	Total/NA	Water	6020B	478423
MB 310-478423/1-A	Method Blank	Total/NA	Water	6020B	478423
LCS 310-478423/2-A	Lab Control Sample	Total/NA	Water	6020B	478423

General Chemistry

Analysis Batch: 478348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-1	MW-14	Total/NA	Water	I-3765-85	
310-323909-3	MW-21	Total/NA	Water	I-3765-85	
MB 310-478348/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-478348/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 478386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-323909-2	MW-19	Total/NA	Water	I-3765-85	
MB 310-478386/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-478386/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Guthrie County January 2026 Retest

Job ID: 310-323909-1
SDG: Guthrie County Sanitary Landfill

Client Sample ID: MW-14

Lab Sample ID: 310-323909-1

Date Collected: 01/12/26 13:10

Matrix: Water

Date Received: 01/13/26 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			478423	RLT9	EET CF	01/15/26 08:56
Total/NA	Analysis	6020B		1	478702	NFT2	EET CF	01/16/26 15:00
Total/NA	Analysis	I-3765-85		1	478348	HE7K	EET CF	01/14/26 08:33

Client Sample ID: MW-19

Lab Sample ID: 310-323909-2

Date Collected: 01/12/26 12:40

Matrix: Water

Date Received: 01/13/26 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			478423	RLT9	EET CF	01/15/26 08:56
Total/NA	Analysis	6020B		1	478702	NFT2	EET CF	01/16/26 15:02
Total/NA	Analysis	I-3765-85		1	478386	HE7K	EET CF	01/14/26 10:39

Client Sample ID: MW-21

Lab Sample ID: 310-323909-3

Date Collected: 01/12/26 13:41

Matrix: Water

Date Received: 01/13/26 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	478344	WSE8	EET CF	01/14/26 14:34
Total/NA	Prep	3005A			478423	RLT9	EET CF	01/15/26 08:56
Total/NA	Analysis	6020B		1	478702	NFT2	EET CF	01/16/26 15:05
Total/NA	Prep	3005A			478423	RLT9	EET CF	01/15/26 08:56
Total/NA	Analysis	6020B		1	478882	NFT2	EET CF	01/20/26 12:16
Total/NA	Analysis	I-3765-85		1	478348	HE7K	EET CF	01/14/26 08:33

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: 310-323909-1
Project/Site: Guthrie County January 2026 Retest
SDG: Guthrie County Sanitary Landfill

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25 *

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

Method Summary

Client: SCS Engineers
Job ID: 310-323909-1
Project/Site: Guthrie County January 2026 Retest
SDG: Guthrie County Sanitary Landfill

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

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310-323909 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE GA | Project.

Receipt Information

Date/Time Received: DATE 01/13/26 | TIME 1400 | Received By: EJ

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes ☐ No	*If yes.* Cooler ID.
Multiple Coolers?	☐ Yes ☑ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☐ Yes ☑ No	*If yes* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☑ No	*If yes.* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☑ No	*If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Thermometer ID: AA | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.2 | Corrected Temp (°C): 0.2

• **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

Chain of Custody Record

eurofins

TestAmerica Laboratories Inc. d/b/a Eurofins TestAmerica

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact	Project Manager Nathan Ohrt	Site Contact Brent Corkins	Date	COC No
Nathan Ohrt	Email nohrt@scsengineers.com	Lab Contact Sam Miller	Carrier	1 of 1 COCs
SCS Engineers	Cell 319-331-9613			Sampler
West Des Moines Iowa	Analysis Turnaround Time			For Lab Use Only
	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client
	Other			Lab Sampling
Project Name Guthrie County January 2026 Retest	☐ 2 weeks			
Site Guthrie County Sanitary Landfill	☐ week			Job / SDG No
P O # 27223271 26	☐ 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)	Appendix I	Nickel	Total Suspended Solids				Trip Blank									Sample Specific Notes
MW-14	1 12 26	1310	G	W		N	N		X	X													
MW-19	1-12 26	1240	G	W		N	N		X	X													
MW-21	1-12-26	1341	G	W		N	N	X		X													
Trip Blank														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

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

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Konr Rath	SCS	1 13 26/1400			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by EJ	Company EET	Date/Time 01/13/26

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

1/20/2026

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-323909-1
SDG Number: Guthrie County Sanitary Landfill

Login Number: 323909
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

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JOB DESCRIPTION

Guthrie County 2026 Annual HMSP

JOB NUMBER

310-334727-1

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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7/13/2026 8:03:10 AM

Authorized for release by
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Job ID: 310-334727-1 — Eurofins Cedar Falls

Job Narrative
310-334727-1

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 6/18/2026 4:05 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 2.8°C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-492394 recovered above the upper control limit for Chloromethane (29%D). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-492394/4).

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

Metals
Method 6020B - Total Recoverable: The Linear Range Check (LRC) was outside of the limit for several analytes. Associated sample values were less than that of the passing high standard, therefore the data are verifiable.

Method 6020B - Total Recoverable: The method blank for preparation batch 500-872417 and analytical batch 500-873958 contained Zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020B - Total Recoverable: The Linear Range Check (LRC) was outside of the limit for several analytes. Associated sample values were less than that of the passing high standard, therefore the data are verifiable.

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: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-334727-1	MW-3	Ground Water	06/17/26 13:17	06/18/26 16:05	Iowa
310-334727-2	MW-5	Ground Water	06/17/26 12:46	06/18/26 16:05	Iowa
310-334727-3	MW-12	Ground Water	06/17/26 14:10	06/18/26 16:05	Iowa
310-334727-4	MW-14	Ground Water	06/17/26 10:35	06/18/26 16:05	Iowa
310-334727-5	MW-16	Ground Water	06/17/26 11:11	06/18/26 16:05	Iowa
310-334727-6	MW-19	Ground Water	06/17/26 12:08	06/18/26 16:05	Iowa
310-334727-7	MW-20	Ground Water	06/17/26 11:35	06/18/26 16:05	Iowa
310-334727-8	MW-21	Ground Water	06/17/26 13:46	06/18/26 16:05	Iowa
310-334727-9	MW-D	Ground Water	06/17/26 12:46	06/18/26 16:05	Iowa
310-334727-10	Trip Blank	Water	06/17/26 00:00	06/18/26 16:05	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-3 — Lab Sample ID: 310-334727-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.948	J	1.00	0.490	ug/L	1		8260D	Total/NA
Chlorobenzene	1.67		1.00	0.350	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.48		1.00	0.550	ug/L	1		8260D	Total/NA
Arsenic	0.000306	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.639		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Cobalt	0.000709	J	0.00100	0.000402	mg/L	1		6020B	Total Recoverable
Copper	0.000727	J ^5-	0.00200	0.000497	mg/L	1		6020B	Total Recoverable
Lead	0.000298	J	0.000500	0.000186	mg/L	1		6020B	Total Recoverable
Nickel	0.00422		0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.00148	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	7.62		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-334727-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000337	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.0616		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Copper	0.000794	J ^5-	0.00200	0.000497	mg/L	1		6020B	Total Recoverable
Nickel	0.000889	J	0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.00101	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	2.50		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 310-334727-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.424		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Vanadium	0.000602	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	2.38		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 310-334727-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000617	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.0626		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Cadmium	0.000439	J	0.000500	0.000167	mg/L	1		6020B	Total Recoverable
Cobalt	0.000972	J	0.00100	0.000402	mg/L	1		6020B	Total Recoverable
Copper	0.00368	^5-	0.00200	0.000497	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14 (Continued) — Lab Sample ID: 310-334727-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.000819		0.000500	0.000186	mg/L	1		6020B	Total Recoverable
Nickel	0.0106		0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.00147	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Zinc	0.0147	J B	0.0200	0.00692	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	199		15.0	8.40	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-334727-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.28	J	10.0	3.80	ug/L	1		8260D	Total/NA
Benzene	0.591		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	0.562	J	1.00	0.350	ug/L	1		8260D	Total/NA
Chloroethane	1.74	J	4.00	0.900	ug/L	1		8260D	Total/NA
Toluene	1.15		1.00	0.430	ug/L	1		8260D	Total/NA
Arsenic	0.0301		0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.555		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Cobalt	0.000653	J	0.00100	0.000402	mg/L	1		6020B	Total Recoverable
Copper	0.000576	J ^5-	0.00200	0.000497	mg/L	1		6020B	Total Recoverable
Nickel	0.0112		0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.000460	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	84.0		15.0	8.40	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-334727-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000260	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.0843		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Nickel	0.00591		0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.000287	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable

Client Sample ID: MW-20 — Lab Sample ID: 310-334727-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000296	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	2.25		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 310-334727-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00120		0.00100	0.000232	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-21 (Continued)
Lab Sample ID: 310-334727-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0447		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Nickel	0.00468		0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.000431	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable

Client Sample ID: MW-D
Lab Sample ID: 310-334727-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000296	J	0.00100	0.000232	mg/L	1		6020B	Total Recoverable
Barium	0.0576		0.00250	0.00139	mg/L	1		6020B	Total Recoverable
Copper	0.000761	J ^5-	0.00200	0.000497	mg/L	1		6020B	Total Recoverable
Nickel	0.000768	J	0.00200	0.000625	mg/L	1		6020B	Total Recoverable
Vanadium	0.000758	^5+	0.000270	0.0000843	mg/L	1		6020B	Total Recoverable
Total Suspended Solids	2.63		1.88	1.05	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank
Lab Sample ID: 310-334727-10

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-3
Date Collected: 06/17/26 13:17
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-1
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/26 22:01	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/20/26 22:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/20/26 22:01	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/20/26 22:01	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/20/26 22:01	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/20/26 22:01	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/20/26 22:01	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/26 22:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/26 22:01	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/26 22:01	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/20/26 22:01	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/20/26 22:01	1
1,4-Dichlorobenzene	**0.948**	**J**	1.00	0.490	ug/L			06/20/26 22:01	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/20/26 22:01	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/20/26 22:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/20/26 22:01	1
Acetone	<10.0		10.0	3.80	ug/L			06/20/26 22:01	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/26 22:01	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/26 22:01	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/20/26 22:01	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/26 22:01	1
Bromoform	<5.00		5.00	2.60	ug/L			06/20/26 22:01	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/26 22:01	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/26 22:01	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/26 22:01	1
Chlorobenzene	**1.67**		1.00	0.350	ug/L			06/20/26 22:01	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/20/26 22:01	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/20/26 22:01	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/26 22:01	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/26 22:01	1
cis-1,2-Dichloroethene	**3.48**		1.00	0.550	ug/L			06/20/26 22:01	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/20/26 22:01	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/26 22:01	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/20/26 22:01	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/20/26 22:01	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/26 22:01	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/26 22:01	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/26 22:01	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/26 22:01	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/20/26 22:01	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/20/26 22:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/20/26 22:01	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/20/26 22:01	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/20/26 22:01	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/20/26 22:01	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/20/26 22:01	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/20/26 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*122*		*76 - 130*		*06/20/26 22:01*	*1*

Client Sample ID: MW-3
Lab Sample ID: 310-334727-1
Date Collected: 06/17/26 13:17
Matrix: Ground Water
Date Received: 06/18/26 16:05

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/20/26 22:01*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/20/26 22:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 19:48	1
Arsenic	**0.000306**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:15	1
Barium	**0.639**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:15	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:15	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:15	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:15	1
Cobalt	**0.000709**	**J**	0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:15	1
Copper	**0.000727**	**J ^5-**	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:15	1
Lead	**0.000298**	**J**	0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:15	1
Nickel	**0.00422**		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:15	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:15	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:15	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:15	1
Vanadium	**0.00148**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 17:34	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**7.62**		1.88	1.05	mg/L			06/19/26 09:10	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-5
Lab Sample ID: 310-334727-2

Date Collected: 06/17/26 12:46
Matrix: Ground Water

Date Received: 06/18/26 16:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:07	1
Arsenic	**0.000337**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:43	1
Barium	**0.0616**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:43	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:43	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:43	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:43	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:43	1
Copper	**0.000794**	**J ^5-**	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:43	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:43	1
Nickel	**0.000889**	**J**	0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:43	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:43	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:43	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:43	1
Vanadium	**0.00101**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 17:57	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.50**		1.88	1.05	mg/L			06/19/26 09:10	1

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-12
Date Collected: 06/17/26 14:10
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-3
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/26 22:24	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/20/26 22:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/20/26 22:24	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/20/26 22:24	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/20/26 22:24	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/20/26 22:24	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/20/26 22:24	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/26 22:24	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/26 22:24	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/26 22:24	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/20/26 22:24	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/20/26 22:24	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/20/26 22:24	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/20/26 22:24	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/20/26 22:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/20/26 22:24	1
Acetone	<10.0		10.0	3.80	ug/L			06/20/26 22:24	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/26 22:24	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/26 22:24	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/20/26 22:24	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/26 22:24	1
Bromoform	<5.00		5.00	2.60	ug/L			06/20/26 22:24	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/26 22:24	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/26 22:24	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/26 22:24	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			06/20/26 22:24	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/20/26 22:24	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/20/26 22:24	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/26 22:24	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/26 22:24	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/20/26 22:24	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/20/26 22:24	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/26 22:24	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/20/26 22:24	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/20/26 22:24	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/26 22:24	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/26 22:24	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/26 22:24	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/26 22:24	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/20/26 22:24	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/20/26 22:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/20/26 22:24	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/20/26 22:24	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/20/26 22:24	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/20/26 22:24	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/20/26 22:24	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/20/26 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*122*		*76 - 130*		*06/20/26 22:24*	*1*

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-12

Date Collected: 06/17/26 14:10
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-3

Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/20/26 22:24*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/20/26 22:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:09	1
Arsenic	<0.00100		0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:46	1
Barium	**0.424**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:46	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:46	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:46	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:46	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:46	1
Copper	<0.00200	^5-	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:46	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:46	1
Nickel	<0.00200		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:46	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:46	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:46	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:46	1
Vanadium	**0.000602**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:00	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.38**		1.88	1.05	mg/L			06/19/26 09:10	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-14
Lab Sample ID: 310-334727-4
Date Collected: 06/17/26 10:35
Matrix: Ground Water
Date Received: 06/18/26 16:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:11	1
Arsenic	**0.000617**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:49	1
Barium	**0.0626**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:49	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:49	1
Cadmium	**0.000439**	**J**	0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:49	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:49	1
Cobalt	**0.000972**	**J**	0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:49	1
Copper	**0.00368**	**^5-**	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:49	1
Lead	**0.000819**		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:49	1
Nickel	**0.0106**		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:49	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:49	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:49	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:49	1
Vanadium	**0.00147**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:03	1
Zinc	**0.0147**	**J B**	0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**199**		15.0	8.40	mg/L			06/19/26 09:10	1

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-16
Date Collected: 06/17/26 11:11
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-5
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/26 22:46	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/20/26 22:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/20/26 22:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/20/26 22:46	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/20/26 22:46	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/20/26 22:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/20/26 22:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/26 22:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/26 22:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/26 22:46	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/20/26 22:46	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/20/26 22:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/20/26 22:46	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/20/26 22:46	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/20/26 22:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/20/26 22:46	1
Acetone	**9.28**	**J**	10.0	3.80	ug/L			06/20/26 22:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/26 22:46	1
Benzene	**0.591**		0.500	0.220	ug/L			06/20/26 22:46	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/20/26 22:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/26 22:46	1
Bromoform	<5.00		5.00	2.60	ug/L			06/20/26 22:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/26 22:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/26 22:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/26 22:46	1
Chlorobenzene	**0.562**	**J**	1.00	0.350	ug/L			06/20/26 22:46	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/20/26 22:46	1
Chloroethane	**1.74**	**J**	4.00	0.900	ug/L			06/20/26 22:46	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/26 22:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/26 22:46	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/20/26 22:46	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/20/26 22:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/26 22:46	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/20/26 22:46	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/20/26 22:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/26 22:46	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/26 22:46	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/26 22:46	1
Toluene	**1.15**		1.00	0.430	ug/L			06/20/26 22:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/20/26 22:46	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/20/26 22:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/20/26 22:46	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/20/26 22:46	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/20/26 22:46	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/20/26 22:46	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/20/26 22:46	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/20/26 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*125*		*76 - 130*		*06/20/26 22:46*	*1*

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-16
Lab Sample ID: 310-334727-5
Date Collected: 06/17/26 11:11
Matrix: Ground Water
Date Received: 06/18/26 16:05

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/20/26 22:46*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/20/26 22:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:14	1
Arsenic	**0.0301**		0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:52	1
Barium	**0.555**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:52	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:52	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:52	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:52	1
Cobalt	**0.000653**	**J**	0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:52	1
Copper	**0.000576**	**J ^5-**	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:52	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:52	1
Nickel	**0.0112**		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:52	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:52	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:52	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:52	1
Vanadium	**0.000460**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:06	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**84.0**		15.0	8.40	mg/L			06/19/26 09:10	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-19
Lab Sample ID: 310-334727-6

Date Collected: 06/17/26 12:08
Matrix: Ground Water

Date Received: 06/18/26 16:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:16	1
Arsenic	**0.000260**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:54	1
Barium	**0.0843**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:54	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:54	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:54	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:54	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:54	1
Copper	<0.00200	^5-	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:54	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:54	1
Nickel	**0.00591**		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:54	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:54	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:54	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:54	1
Vanadium	**0.000287**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:09	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.05	mg/L			06/19/26 09:10	1

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-20
Lab Sample ID: 310-334727-7
Date Collected: 06/17/26 11:35
Matrix: Ground Water
Date Received: 06/18/26 16:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.000296**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:57	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.25**		1.88	1.05	mg/L			06/19/26 09:10	1

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-21
Date Collected: 06/17/26 13:46
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-8
Matrix: Ground Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/23/26 03:14	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/23/26 03:14	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/23/26 03:14	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/23/26 03:14	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/23/26 03:14	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/23/26 03:14	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/23/26 03:14	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/23/26 03:14	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/23/26 03:14	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/23/26 03:14	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/23/26 03:14	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/23/26 03:14	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/23/26 03:14	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/23/26 03:14	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/23/26 03:14	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/23/26 03:14	1
Acetone	<10.0		10.0	3.80	ug/L			06/23/26 03:14	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/23/26 03:14	1
Benzene	<0.500		0.500	0.220	ug/L			06/23/26 03:14	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/23/26 03:14	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/23/26 03:14	1
Bromoform	<5.00		5.00	2.60	ug/L			06/23/26 03:14	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/23/26 03:14	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/23/26 03:14	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/23/26 03:14	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			06/23/26 03:14	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/23/26 03:14	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/23/26 03:14	1
Chloroform	<3.00		3.00	1.30	ug/L			06/23/26 03:14	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/23/26 03:14	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/23/26 03:14	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/23/26 03:14	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/23/26 03:14	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/23/26 03:14	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/23/26 03:14	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/23/26 03:14	1
Styrene	<1.00		1.00	0.370	ug/L			06/23/26 03:14	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/23/26 03:14	1
Toluene	<1.00		1.00	0.430	ug/L			06/23/26 03:14	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/23/26 03:14	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/23/26 03:14	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/23/26 03:14	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/23/26 03:14	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/23/26 03:14	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/23/26 03:14	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/23/26 03:14	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/23/26 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 130*		*06/23/26 03:14*	*1*

Client Sample ID: MW-21
Lab Sample ID: 310-334727-8
Date Collected: 06/17/26 13:46
Matrix: Ground Water
Date Received: 06/18/26 16:05

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/23/26 03:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/23/26 03:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:18	1
Arsenic	**0.00120**		0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 17:00	1
Barium	**0.0447**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 17:00	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 17:00	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 17:00	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 17:00	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 17:00	1
Copper	<0.00200	^5-	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 17:00	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 17:00	1
Nickel	**0.00468**		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 17:00	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 17:00	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 17:00	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 17:00	1
Vanadium	**0.000431**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:12	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.05	mg/L			06/19/26 09:10	1

Client Sample Results

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-D
Lab Sample ID: 310-334727-9

Date Collected: 06/17/26 12:46
Matrix: Ground Water
Date Received: 06/18/26 16:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 20:21	1
Arsenic	**0.000296**	**J**	0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 17:03	1
Barium	**0.0576**		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 17:03	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 17:03	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 17:03	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 17:03	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 17:03	1
Copper	**0.000761**	**J ^5-**	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 17:03	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 17:03	1
Nickel	**0.000768**	**J**	0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 17:03	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 17:03	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 17:03	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 17:03	1
Vanadium	**0.000758**	**^5+**	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 18:15	1
Zinc	<0.0200		0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 17:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.63**		1.88	1.05	mg/L			06/19/26 09:10	1

Client Sample ID: Trip Blank
Date Collected: 06/17/26 00:00
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/23/26 01:46	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/23/26 01:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/23/26 01:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/23/26 01:46	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/23/26 01:46	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/23/26 01:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/23/26 01:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/23/26 01:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/23/26 01:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/23/26 01:46	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/23/26 01:46	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/23/26 01:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/23/26 01:46	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/23/26 01:46	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/23/26 01:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/23/26 01:46	1
Acetone	<10.0		10.0	3.80	ug/L			06/23/26 01:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/23/26 01:46	1
Benzene	<0.500		0.500	0.220	ug/L			06/23/26 01:46	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/23/26 01:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/23/26 01:46	1
Bromoform	<5.00		5.00	2.60	ug/L			06/23/26 01:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/23/26 01:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/23/26 01:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/23/26 01:46	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			06/23/26 01:46	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/23/26 01:46	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/23/26 01:46	1
Chloroform	<3.00		3.00	1.30	ug/L			06/23/26 01:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/23/26 01:46	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/23/26 01:46	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/23/26 01:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/23/26 01:46	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/23/26 01:46	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/23/26 01:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/23/26 01:46	1
Styrene	<1.00		1.00	0.370	ug/L			06/23/26 01:46	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/23/26 01:46	1
Toluene	<1.00		1.00	0.430	ug/L			06/23/26 01:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/23/26 01:46	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/23/26 01:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/23/26 01:46	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/23/26 01:46	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/23/26 01:46	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/23/26 01:46	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/23/26 01:46	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/23/26 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*76 - 130*		*06/23/26 01:46*	*1*

Client Sample ID: Trip Blank
Lab Sample ID: 310-334727-10
Date Collected: 06/17/26 00:00
Matrix: Water
Date Received: 06/18/26 16:05

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		06/23/26 01:46	1
4-Bromofluorobenzene (Surr)	100		80 - 120		06/23/26 01:46	1

Qualifiers

GC/MS VOA

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.

Metals

Qualifier	Qualifier Description
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
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

Surrogate Summary

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-334727-1	MW-3	122	95	105
310-334727-3	MW-12	122	95	102
310-334727-5	MW-16	125	96	101
310-334727-8	MW-21	99	103	101
310-334727-8 MS	MW-21	99	99	99
310-334727-8 MSD	MW-21	98	98	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(76-130)	(80-120)	(80-120)
310-334727-10	Trip Blank	97	100	100
LCS 310-492394/7	Lab Control Sample	94	100	94
LCS 310-492394/8	Lab Control Sample	122	97	98
LCS 310-492552/7	Lab Control Sample	100	99	96
LCS 310-492552/8	Lab Control Sample	97	99	99
MB 310-492394/6	Method Blank	118	95	103
MB 310-492552/6	Method Blank	96	100	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-492394/6
Matrix: Water
Analysis Batch: 492394

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/26 19:46	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/20/26 19:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/20/26 19:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/20/26 19:46	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/20/26 19:46	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/20/26 19:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/20/26 19:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/26 19:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/26 19:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/26 19:46	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/20/26 19:46	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/20/26 19:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/20/26 19:46	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/20/26 19:46	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/20/26 19:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/20/26 19:46	1
Acetone	<10.0		10.0	3.80	ug/L			06/20/26 19:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/26 19:46	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/26 19:46	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/20/26 19:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/26 19:46	1
Bromoform	<5.00		5.00	2.60	ug/L			06/20/26 19:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/26 19:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/26 19:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/26 19:46	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			06/20/26 19:46	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/20/26 19:46	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/20/26 19:46	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/26 19:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/26 19:46	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/20/26 19:46	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/20/26 19:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/26 19:46	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/20/26 19:46	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/20/26 19:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/26 19:46	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/26 19:46	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/26 19:46	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/26 19:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/20/26 19:46	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/20/26 19:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/20/26 19:46	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/20/26 19:46	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/20/26 19:46	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/20/26 19:46	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/20/26 19:46	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/20/26 19:46	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-492394/6
Matrix: Water
Analysis Batch: 492394

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*118*		*76 - 130*		*06/20/26 19:46*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/20/26 19:46*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/20/26 19:46*	*1*

Lab Sample ID: LCS 310-492394/7
Matrix: Water
Analysis Batch: 492394

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	21.72		ug/L		109	70 - 121
1,1,1-Trichloroethane	20.0	20.29		ug/L		101	69 - 130
1,1,2,2-Tetrachloroethane	20.0	20.78		ug/L		104	70 - 122
1,1,2-Trichloroethane	20.0	22.00		ug/L		110	75 - 121
1,1-Dichloroethane	20.0	19.57		ug/L		98	69 - 127
1,1-Dichloroethene	20.0	20.02		ug/L		100	64 - 134
1,2,3-Trichloropropane	20.0	22.55		ug/L		113	70 - 122
1,2-Dibromo-3-chloropropane	20.0	19.80		ug/L		99	62 - 132
1,2-Dibromoethane (EDB)	20.0	21.47		ug/L		107	74 - 122
1,2-Dichlorobenzene	20.0	20.67		ug/L		103	74 - 120
1,2-Dichloroethane	20.0	19.61		ug/L		98	68 - 125
1,2-Dichloropropane	20.0	19.20		ug/L		96	72 - 128
1,4-Dichlorobenzene	20.0	18.95		ug/L		95	72 - 120
2-Butanone (MEK)	40.0	38.23		ug/L		96	60 - 134
2-Hexanone	40.0	41.62		ug/L		104	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	44.10		ug/L		110	62 - 136
Acetone	40.0	44.69		ug/L		112	59 - 136
Acrylonitrile	200	198.1		ug/L		99	50 - 150
Benzene	20.0	21.13		ug/L		106	71 - 125
Bromochloromethane	20.0	20.76		ug/L		104	69 - 131
Bromodichloromethane	20.0	19.61		ug/L		98	70 - 122
Bromoform	20.0	21.99		ug/L		110	62 - 122
Carbon disulfide	20.0	20.78		ug/L		104	58 - 137
Carbon tetrachloride	20.0	20.51		ug/L		103	63 - 136
Chlorobenzene	20.0	19.86		ug/L		99	74 - 120
Chlorodibromomethane	20.0	20.19		ug/L		101	69 - 121
Chloroform	20.0	22.41		ug/L		112	72 - 122
cis-1,2-Dichloroethene	20.0	19.38		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	20.90		ug/L		105	72 - 123
Dibromomethane	20.0	19.35		ug/L		97	72 - 122
Ethylbenzene	20.0	20.61		ug/L		103	75 - 120
Iodomethane	20.0	15.59		ug/L		78	18 - 150
Methylene chloride	20.0	21.35		ug/L		107	72 - 128
Styrene	20.0	21.52		ug/L		108	74 - 122
Tetrachloroethene	20.0	20.23		ug/L		101	70 - 128
Toluene	20.0	19.91		ug/L		100	74 - 120
trans-1,2-Dichloroethene	20.0	19.92		ug/L		100	67 - 127
trans-1,3-Dichloropropene	20.0	21.07		ug/L		105	67 - 123
trans-1,4-Dichloro-2-butene	20.0	23.33		ug/L		117	50 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-492394/7
Matrix: Water
Analysis Batch: 492394

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	20.22		ug/L		101	70 - 128
Vinyl acetate	40.0	34.38		ug/L		86	50 - 150
Xylenes, Total	40.0	42.28		ug/L		106	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*76 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*

Lab Sample ID: LCS 310-492394/8
Matrix: Water
Analysis Batch: 492394

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	21.77		ug/L		109	33 - 138
Chloroethane	20.0	23.63		ug/L		118	59 - 139
Chloromethane	20.0	27.49		ug/L		137	52 - 146
Trichlorofluoromethane	20.0	25.05		ug/L		125	55 - 150
Vinyl chloride	20.0	24.02		ug/L		120	60 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*122*		*76 - 130*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 310-492552/6
Matrix: Water
Analysis Batch: 492552

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/23/26 00:40	1
1,1,1-Trichloroethane	<1.00		1.00	0.420	ug/L			06/23/26 00:40	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.350	ug/L			06/23/26 00:40	1
1,1,2-Trichloroethane	<1.00		1.00	0.330	ug/L			06/23/26 00:40	1
1,1-Dichloroethane	<1.00		1.00	0.400	ug/L			06/23/26 00:40	1
1,1-Dichloroethene	<2.00		2.00	0.460	ug/L			06/23/26 00:40	1
1,2,3-Trichloropropane	<1.00		1.00	0.430	ug/L			06/23/26 00:40	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/23/26 00:40	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/23/26 00:40	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/23/26 00:40	1
1,2-Dichloroethane	<1.00		1.00	0.890	ug/L			06/23/26 00:40	1
1,2-Dichloropropane	<1.00		1.00	0.380	ug/L			06/23/26 00:40	1
1,4-Dichlorobenzene	<1.00		1.00	0.490	ug/L			06/23/26 00:40	1
2-Butanone (MEK)	<10.0		10.0	3.40	ug/L			06/23/26 00:40	1
2-Hexanone	<10.0		10.0	3.80	ug/L			06/23/26 00:40	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	3.50	ug/L			06/23/26 00:40	1
Acetone	<10.0		10.0	3.80	ug/L			06/23/26 00:40	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/23/26 00:40	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-492552/6
Matrix: Water
Analysis Batch: 492552

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			06/23/26 00:40	1
Bromochloromethane	<5.00		5.00	1.70	ug/L			06/23/26 00:40	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/23/26 00:40	1
Bromoform	<5.00		5.00	2.60	ug/L			06/23/26 00:40	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/23/26 00:40	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/23/26 00:40	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/23/26 00:40	1
Chlorobenzene	<1.00		1.00	0.350	ug/L			06/23/26 00:40	1
Chlorodibromomethane	<5.00		5.00	1.50	ug/L			06/23/26 00:40	1
Chloroethane	<4.00		4.00	0.900	ug/L			06/23/26 00:40	1
Chloroform	<3.00		3.00	1.30	ug/L			06/23/26 00:40	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/23/26 00:40	1
cis-1,2-Dichloroethene	<1.00		1.00	0.550	ug/L			06/23/26 00:40	1
cis-1,3-Dichloropropene	<5.00		5.00	1.20	ug/L			06/23/26 00:40	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/23/26 00:40	1
Ethylbenzene	<1.00		1.00	0.420	ug/L			06/23/26 00:40	1
Iodomethane	<10.0		10.0	2.60	ug/L			06/23/26 00:40	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/23/26 00:40	1
Styrene	<1.00		1.00	0.370	ug/L			06/23/26 00:40	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/23/26 00:40	1
Toluene	<1.00		1.00	0.430	ug/L			06/23/26 00:40	1
trans-1,2-Dichloroethene	<1.00		1.00	0.410	ug/L			06/23/26 00:40	1
trans-1,3-Dichloropropene	<5.00		5.00	2.30	ug/L			06/23/26 00:40	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	2.40	ug/L			06/23/26 00:40	1
Trichloroethene	<1.00		1.00	0.350	ug/L			06/23/26 00:40	1
Trichlorofluoromethane	<4.00		4.00	0.470	ug/L			06/23/26 00:40	1
Vinyl acetate	<10.0		10.0	7.10	ug/L			06/23/26 00:40	1
Vinyl chloride	<1.00		1.00	0.430	ug/L			06/23/26 00:40	1
Xylenes, Total	<3.00		3.00	1.10	ug/L			06/23/26 00:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*76 - 130*		*06/23/26 00:40*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/23/26 00:40*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*06/23/26 00:40*	*1*

Lab Sample ID: LCS 310-492552/7
Matrix: Water
Analysis Batch: 492552

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.52		ug/L		98	70 - 121
1,1,1-Trichloroethane	20.0	19.96		ug/L		100	69 - 130
1,1,2,2-Tetrachloroethane	20.0	18.65		ug/L		93	70 - 122
1,1,2-Trichloroethane	20.0	19.90		ug/L		100	75 - 121
1,1-Dichloroethane	20.0	19.79		ug/L		99	69 - 127
1,1-Dichloroethene	20.0	18.92		ug/L		95	64 - 134
1,2,3-Trichloropropane	20.0	19.34		ug/L		97	70 - 122
1,2-Dibromo-3-chloropropane	20.0	18.73		ug/L		94	62 - 132

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-492552/7
Matrix: Water
Analysis Batch: 492552

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	20.0	19.48		ug/L		97	74 - 122
1,2-Dichlorobenzene	20.0	18.55		ug/L		93	74 - 120
1,2-Dichloroethane	20.0	19.35		ug/L		97	68 - 125
1,2-Dichloropropane	20.0	18.55		ug/L		93	72 - 128
1,4-Dichlorobenzene	20.0	19.93		ug/L		100	72 - 120
2-Butanone (MEK)	40.0	37.79		ug/L		94	60 - 134
2-Hexanone	40.0	36.59		ug/L		91	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	35.04		ug/L		88	62 - 136
Acetone	40.0	36.32		ug/L		91	59 - 136
Acrylonitrile	200	192.1		ug/L		96	50 - 150
Benzene	20.0	19.68		ug/L		98	71 - 125
Bromochloromethane	20.0	19.47		ug/L		97	69 - 131
Bromodichloromethane	20.0	19.19		ug/L		96	70 - 122
Bromoform	20.0	17.00		ug/L		85	62 - 122
Carbon disulfide	20.0	19.64		ug/L		98	58 - 137
Carbon tetrachloride	20.0	18.96		ug/L		95	63 - 136
Chlorobenzene	20.0	19.99		ug/L		100	74 - 120
Chlorodibromomethane	20.0	18.34		ug/L		92	69 - 121
Chloroform	20.0	20.15		ug/L		101	72 - 122
cis-1,2-Dichloroethene	20.0	19.32		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	18.99		ug/L		95	72 - 123
Dibromomethane	20.0	19.30		ug/L		96	72 - 122
Ethylbenzene	20.0	19.74		ug/L		99	75 - 120
Iodomethane	20.0	14.99		ug/L		75	18 - 150
Methylene chloride	20.0	19.36		ug/L		97	72 - 128
Styrene	20.0	19.44		ug/L		97	74 - 122
Tetrachloroethene	20.0	19.95		ug/L		100	70 - 128
Toluene	20.0	19.73		ug/L		99	74 - 120
trans-1,2-Dichloroethene	20.0	19.57		ug/L		98	67 - 127
trans-1,3-Dichloropropene	20.0	18.23		ug/L		91	67 - 123
trans-1,4-Dichloro-2-butene	20.0	17.79		ug/L		89	50 - 150
Trichloroethene	20.0	19.87		ug/L		99	70 - 128
Vinyl acetate	40.0	37.07		ug/L		93	50 - 150
Xylenes, Total	40.0	38.23		ug/L		96	74 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*76 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*

Lab Sample ID: LCS 310-492552/8
Matrix: Water
Analysis Batch: 492552

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	17.62		ug/L		88	33 - 138
Chloroethane	20.0	21.81		ug/L		109	59 - 139
Chloromethane	20.0	21.61		ug/L		108	52 - 146

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-492552/8
Matrix: Water
Analysis Batch: 492552

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Trichlorofluoromethane			20.0	21.74		ug/L		109	55 - 150		
Vinyl chloride			20.0	22.28		ug/L		111	60 - 142		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*76 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-334727-8 MS
Matrix: Ground Water
Analysis Batch: 492552

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane	<1.00		25.0	22.10		ug/L		88	55 - 121		
1,1,1-Trichloroethane	<1.00		25.0	21.61		ug/L		86	53 - 130		
1,1,2,2-Tetrachloroethane	<1.00		25.0	21.49		ug/L		86	55 - 123		
1,1,2-Trichloroethane	<1.00		25.0	21.96		ug/L		88	60 - 121		
1,1-Dichloroethane	<1.00		25.0	21.27		ug/L		85	53 - 127		
1,1-Dichloroethene	<2.00		25.0	21.04		ug/L		84	51 - 134		
1,2,3-Trichloropropane	<1.00		25.0	22.90		ug/L		92	56 - 122		
1,2-Dibromo-3-chloropropane	<5.00		25.0	21.45		ug/L		86	44 - 138		
1,2-Dibromoethane (EDB)	<1.00		25.0	22.72		ug/L		91	60 - 122		
1,2-Dichlorobenzene	<1.00		25.0	21.88		ug/L		88	60 - 120		
1,2-Dichloroethane	<1.00		25.0	21.45		ug/L		86	48 - 128		
1,2-Dichloropropane	<1.00		25.0	20.70		ug/L		83	59 - 128		
1,4-Dichlorobenzene	<1.00		25.0	22.67		ug/L		91	58 - 120		
2-Butanone (MEK)	<10.0		50.0	46.57		ug/L		93	46 - 134		
2-Hexanone	<10.0		50.0	43.61		ug/L		87	46 - 141		
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	41.22		ug/L		82	49 - 138		
Acetone	<10.0		50.0	47.12		ug/L		94	39 - 141		
Acrylonitrile	<5.00		250	219.5		ug/L		88	41 - 150		
Benzene	<0.500		25.0	21.89		ug/L		88	48 - 125		
Bromochloromethane	<5.00		25.0	22.21		ug/L		89	55 - 131		
Bromodichloromethane	<1.00		25.0	20.94		ug/L		84	53 - 122		
Bromoform	<5.00		25.0	19.56		ug/L		78	47 - 122		
Carbon disulfide	<1.00		25.0	21.39		ug/L		86	45 - 137		
Carbon tetrachloride	<2.00		25.0	20.89		ug/L		84	45 - 136		
Chlorobenzene	<1.00		25.0	22.15		ug/L		89	59 - 120		
Chlorodibromomethane	<5.00		25.0	20.80		ug/L		83	53 - 121		
Chloroform	<3.00		25.0	21.77		ug/L		87	52 - 122		
cis-1,2-Dichloroethene	<1.00		25.0	21.57		ug/L		86	51 - 123		
cis-1,3-Dichloropropene	<5.00		25.0	21.04		ug/L		84	55 - 123		
Dibromomethane	<1.00		25.0	21.82		ug/L		87	57 - 122		
Ethylbenzene	<1.00		25.0	22.80		ug/L		91	53 - 120		
Iodomethane	<10.0		25.0	21.27		ug/L		85	18 - 150		
Methylene chloride	<5.00		25.0	21.41		ug/L		86	59 - 128		
Styrene	<1.00		25.0	21.86		ug/L		87	50 - 125		
Tetrachloroethene	<1.00		25.0	22.10		ug/L		88	51 - 128		

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-334727-8 MS
Matrix: Ground Water
Analysis Batch: 492552

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	<1.00		25.0	24.47		ug/L		98	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	21.79		ug/L		87	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	19.88		ug/L		80	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	17.81		ug/L		71	28 - 150
Trichloroethene	<1.00		25.0	22.20		ug/L		89	50 - 128
Vinyl acetate	<10.0		50.0	40.70		ug/L		81	31 - 150
Xylenes, Total	<3.00		50.0	48.98		ug/L		98	50 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*76 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-334727-8 MSD
Matrix: Ground Water
Analysis Batch: 492552

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	20.75		ug/L		83	55 - 121	6	20
1,1,1-Trichloroethane	<1.00		25.0	20.13		ug/L		81	53 - 130	7	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	20.16		ug/L		81	55 - 123	6	20
1,1,2-Trichloroethane	<1.00		25.0	20.54		ug/L		82	60 - 121	7	20
1,1-Dichloroethane	<1.00		25.0	19.43		ug/L		78	53 - 127	9	20
1,1-Dichloroethene	<2.00		25.0	19.10		ug/L		76	51 - 134	10	20
1,2,3-Trichloropropane	<1.00		25.0	21.18		ug/L		85	56 - 122	8	21
1,2-Dibromo-3-chloropropane	<5.00		25.0	20.91		ug/L		84	44 - 138	3	24
1,2-Dibromoethane (EDB)	<1.00		25.0	21.55		ug/L		86	60 - 122	5	20
1,2-Dichlorobenzene	<1.00		25.0	20.66		ug/L		83	60 - 120	6	20
1,2-Dichloroethane	<1.00		25.0	20.27		ug/L		81	48 - 128	6	20
1,2-Dichloropropane	<1.00		25.0	19.00		ug/L		76	59 - 128	9	20
1,4-Dichlorobenzene	<1.00		25.0	21.73		ug/L		87	58 - 120	4	20
2-Butanone (MEK)	<10.0		50.0	43.39		ug/L		87	46 - 134	7	23
2-Hexanone	<10.0		50.0	40.69		ug/L		81	46 - 141	7	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	37.84		ug/L		76	49 - 138	9	20
Acetone	<10.0		50.0	43.26		ug/L		87	39 - 141	9	23
Acrylonitrile	<5.00		250	210.7		ug/L		84	41 - 150	4	20
Benzene	<0.500		25.0	20.16		ug/L		81	48 - 125	8	20
Bromochloromethane	<5.00		25.0	20.98		ug/L		84	55 - 131	6	21
Bromodichloromethane	<1.00		25.0	19.60		ug/L		78	53 - 122	7	20
Bromoform	<5.00		25.0	18.50		ug/L		74	47 - 122	6	20
Carbon disulfide	<1.00		25.0	18.96		ug/L		76	45 - 137	12	24
Carbon tetrachloride	<2.00		25.0	19.31		ug/L		77	45 - 136	8	20
Chlorobenzene	<1.00		25.0	20.47		ug/L		82	59 - 120	8	20
Chlorodibromomethane	<5.00		25.0	19.72		ug/L		79	53 - 121	5	20
Chloroform	<3.00		25.0	19.97		ug/L		80	52 - 122	9	20
cis-1,2-Dichloroethene	<1.00		25.0	19.68		ug/L		79	51 - 123	9	20
cis-1,3-Dichloropropene	<5.00		25.0	19.44		ug/L		78	55 - 123	8	20
Dibromomethane	<1.00		25.0	20.82		ug/L		83	57 - 122	5	20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-334727-8 MSD
Matrix: Ground Water
Analysis Batch: 492552

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	<1.00		25.0	20.61		ug/L		82	53 - 120	10	20
Iodomethane	<10.0		25.0	20.63		ug/L		83	18 - 150	3	32
Methylene chloride	<5.00		25.0	19.73		ug/L		79	59 - 128	8	20
Styrene	<1.00		25.0	20.21		ug/L		81	50 - 125	8	20
Tetrachloroethene	<1.00		25.0	21.36		ug/L		85	51 - 128	3	20
Toluene	<1.00		25.0	20.89		ug/L		84	52 - 120	16	20
trans-1,2-Dichloroethene	<1.00		25.0	19.61		ug/L		78	53 - 127	11	20
trans-1,3-Dichloropropene	<5.00		25.0	18.75		ug/L		75	50 - 123	6	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	16.27		ug/L		65	28 - 150	9	24
Trichloroethene	<1.00		25.0	20.05		ug/L		80	50 - 128	10	20
Vinyl acetate	<10.0		50.0	38.26		ug/L		77	31 - 150	6	25
Xylenes, Total	<3.00		50.0	42.25		ug/L		85	50 - 122	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*76 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-872417/1-A
Matrix: Water
Analysis Batch: 873958

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00100		0.00100	0.000232	mg/L		06/24/26 19:33	07/06/26 16:03	1
Barium	<0.00250		0.00250	0.00139	mg/L		06/24/26 19:33	07/06/26 16:03	1
Beryllium	<0.000400	^5-	0.000400	0.000236	mg/L		06/24/26 19:33	07/06/26 16:03	1
Cadmium	<0.000500		0.000500	0.000167	mg/L		06/24/26 19:33	07/06/26 16:03	1
Chromium	<0.00500		0.00500	0.00459	mg/L		06/24/26 19:33	07/06/26 16:03	1
Cobalt	<0.00100		0.00100	0.000402	mg/L		06/24/26 19:33	07/06/26 16:03	1
Copper	<0.00200	^5-	0.00200	0.000497	mg/L		06/24/26 19:33	07/06/26 16:03	1
Lead	<0.000500		0.000500	0.000186	mg/L		06/24/26 19:33	07/06/26 16:03	1
Nickel	<0.00200		0.00200	0.000625	mg/L		06/24/26 19:33	07/06/26 16:03	1
Selenium	<0.00250		0.00250	0.000982	mg/L		06/24/26 19:33	07/06/26 16:03	1
Silver	<0.000500		0.000500	0.000115	mg/L		06/24/26 19:33	07/06/26 16:03	1
Thallium	<0.000400		0.000400	0.000255	mg/L		06/24/26 19:33	07/06/26 16:03	1
Zinc	0.01002	J	0.0200	0.00692	mg/L		06/24/26 19:33	07/06/26 16:03	1

Lab Sample ID: MB 500-872417/1-A
Matrix: Water
Analysis Batch: 874595

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00100	0.000933	mg/L		06/24/26 19:33	07/09/26 19:43	1

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

Lab Sample ID: MB 500-872417/1-A
Matrix: Water
Analysis Batch: 874752

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	<0.000270	^5+	0.000270	0.0000843	mg/L		06/24/26 19:33	07/10/26 17:15	1

Lab Sample ID: LCS 500-872417/2-A
Matrix: Water
Analysis Batch: 873958

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.09343		mg/L		93	80 - 120
Barium	0.500	0.4644		mg/L		93	80 - 120
Beryllium	0.0500	0.04556	^5-	mg/L		91	80 - 120
Cadmium	0.0500	0.04713		mg/L		94	80 - 120
Chromium	0.200	0.1855		mg/L		93	80 - 120
Cobalt	0.500	0.5121		mg/L		102	80 - 120
Copper	0.250	0.2436	^5-	mg/L		97	80 - 120
Lead	0.100	0.09423		mg/L		94	80 - 120
Nickel	0.500	0.4854		mg/L		97	80 - 120
Selenium	0.100	0.09424		mg/L		94	80 - 120
Silver	0.0500	0.04735		mg/L		95	80 - 120
Thallium	0.100	0.09546		mg/L		95	80 - 120
Zinc	0.500	0.4761		mg/L		95	80 - 120

Lab Sample ID: LCS 500-872417/2-A
Matrix: Water
Analysis Batch: 874595

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2089		mg/L		104	80 - 120

Lab Sample ID: LCS 500-872417/2-A
Matrix: Water
Analysis Batch: 874752

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	0.500	0.5188	^5+	mg/L		104	80 - 120

Lab Sample ID: 310-334727-1 MS
Matrix: Ground Water
Analysis Batch: 873958

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.000306	J	0.100	0.09553		mg/L		95	75 - 125
Barium	0.639		0.500	1.169		mg/L		106	75 - 125
Beryllium	<0.000400	^5-	0.0500	0.04423	^5-	mg/L		88	75 - 125
Cadmium	<0.000500		0.0500	0.04739		mg/L		95	75 - 125
Chromium	<0.00500		0.200	0.1856		mg/L		93	75 - 125
Cobalt	0.000709	J	0.500	0.5013		mg/L		100	75 - 125
Copper	0.000727	J ^5-	0.250	0.2362	^5-	mg/L		94	75 - 125
Lead	0.000298	J	0.100	0.09381		mg/L		94	75 - 125
Nickel	0.00422		0.500	0.4763		mg/L		94	75 - 125

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

Lab Sample ID: 310-334727-1 MS
Matrix: Ground Water
Analysis Batch: 873958

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	<0.00250		0.100	0.09570		mg/L		96	75 - 125
Silver	<0.000500		0.0500	0.04799		mg/L		96	75 - 125
Thallium	<0.000400		0.100	0.09512		mg/L		95	75 - 125
Zinc	<0.0200		0.500	0.4658		mg/L		93	75 - 125

Lab Sample ID: 310-334727-1 MS
Matrix: Ground Water
Analysis Batch: 874595

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00100		0.200	0.2164		mg/L		108	75 - 125

Lab Sample ID: 310-334727-1 MS
Matrix: Ground Water
Analysis Batch: 874752

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	0.00148	^5+	0.500	0.5339	^5+	mg/L		106	75 - 125

Lab Sample ID: 310-334727-1 MSD
Matrix: Ground Water
Analysis Batch: 873958

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.000306	J	0.100	0.09548		mg/L		95	75 - 125	0	20
Barium	0.639		0.500	1.208		mg/L		114	75 - 125	3	20
Beryllium	<0.000400	^5-	0.0500	0.04448	^5-	mg/L		89	75 - 125	1	20
Cadmium	<0.000500		0.0500	0.04811		mg/L		96	75 - 125	2	20
Chromium	<0.00500		0.200	0.1875		mg/L		94	75 - 125	1	20
Cobalt	0.000709	J	0.500	0.5064		mg/L		101	75 - 125	1	20
Copper	0.000727	J ^5-	0.250	0.2391	^5-	mg/L		95	75 - 125	1	20
Lead	0.000298	J	0.100	0.09533		mg/L		95	75 - 125	2	20
Nickel	0.00422		0.500	0.4791		mg/L		95	75 - 125	1	20
Selenium	<0.00250		0.100	0.09536		mg/L		95	75 - 125	0	20
Silver	<0.000500		0.0500	0.04816		mg/L		96	75 - 125	0	20
Thallium	<0.000400		0.100	0.09670		mg/L		97	75 - 125	2	20
Zinc	<0.0200		0.500	0.4693		mg/L		94	75 - 125	1	20

Lab Sample ID: 310-334727-1 MSD
Matrix: Ground Water
Analysis Batch: 874595

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00100		0.200	0.2177		mg/L		109	75 - 125	1	20

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

Lab Sample ID: 310-334727-1 MSD
Matrix: Ground Water
Analysis Batch: 874752

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Vanadium	0.00148	^5+	0.500	0.5448	^5+	mg/L		109	75 - 125	2	20

Lab Sample ID: 310-334727-1 DU
Matrix: Ground Water
Analysis Batch: 873958

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.000306	J	0.0003037	J	mg/L		0.8	20
Barium	0.639		0.6428		mg/L		0.6	20
Beryllium	<0.000400	^5-	<0.000400		mg/L		NC	20
Cadmium	<0.000500		<0.000500		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.000709	J	0.0007012	J	mg/L		1	20
Copper	0.000727	J ^5-	0.0007024	J	mg/L		3	20
Lead	0.000298	J	0.0002183	J F5	mg/L		31	20
Nickel	0.00422		0.004411		mg/L		4	20
Selenium	<0.00250		<0.00250		mg/L		NC	20
Silver	<0.000500		<0.000500		mg/L		NC	20
Thallium	<0.000400		<0.000400		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Lab Sample ID: 310-334727-1 DU
Matrix: Ground Water
Analysis Batch: 874595

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00100		<0.00100		mg/L		NC	20

Lab Sample ID: 310-334727-1 DU
Matrix: Ground Water
Analysis Batch: 874752

Client Sample ID: MW-3
Prep Type: Total Recoverable
Prep Batch: 872417

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Vanadium	0.00148	^5+	0.001401		mg/L		5	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-492324/1
Matrix: Water
Analysis Batch: 492324

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	2.80	mg/L			06/19/26 09:10	1

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Method: I-3765-85 - Residue, Non-filterable (TSS) (Continued)

Lab Sample ID: LCS 310-492324/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 492324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	94.00		mg/L		94	82 - 117

GC/MS VOA

Analysis Batch: 492394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total/NA	Ground Water	8260D	
310-334727-3	MW-12	Total/NA	Ground Water	8260D	
310-334727-5	MW-16	Total/NA	Ground Water	8260D	
MB 310-492394/6	Method Blank	Total/NA	Water	8260D	
LCS 310-492394/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-492394/8	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 492552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-8	MW-21	Total/NA	Ground Water	8260D	
310-334727-10	Trip Blank	Total/NA	Water	8260D	
MB 310-492552/6	Method Blank	Total/NA	Water	8260D	
LCS 310-492552/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-492552/8	Lab Control Sample	Total/NA	Water	8260D	
310-334727-8 MS	MW-21	Total/NA	Ground Water	8260D	
310-334727-8 MSD	MW-21	Total/NA	Ground Water	8260D	

Metals

Prep Batch: 872417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total Recoverable	Ground Water	3005A	
310-334727-2	MW-5	Total Recoverable	Ground Water	3005A	
310-334727-3	MW-12	Total Recoverable	Ground Water	3005A	
310-334727-4	MW-14	Total Recoverable	Ground Water	3005A	
310-334727-5	MW-16	Total Recoverable	Ground Water	3005A	
310-334727-6	MW-19	Total Recoverable	Ground Water	3005A	
310-334727-7	MW-20	Total Recoverable	Ground Water	3005A	
310-334727-8	MW-21	Total Recoverable	Ground Water	3005A	
310-334727-9	MW-D	Total Recoverable	Ground Water	3005A	
MB 500-872417/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-872417/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
310-334727-1 MS	MW-3	Total Recoverable	Ground Water	3005A	
310-334727-1 MSD	MW-3	Total Recoverable	Ground Water	3005A	
310-334727-1 DU	MW-3	Total Recoverable	Ground Water	3005A	

Analysis Batch: 873958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-2	MW-5	Total Recoverable	Ground Water	6020B	872417
310-334727-3	MW-12	Total Recoverable	Ground Water	6020B	872417
310-334727-4	MW-14	Total Recoverable	Ground Water	6020B	872417
310-334727-5	MW-16	Total Recoverable	Ground Water	6020B	872417
310-334727-6	MW-19	Total Recoverable	Ground Water	6020B	872417
310-334727-7	MW-20	Total Recoverable	Ground Water	6020B	872417
310-334727-8	MW-21	Total Recoverable	Ground Water	6020B	872417
310-334727-9	MW-D	Total Recoverable	Ground Water	6020B	872417
MB 500-872417/1-A	Method Blank	Total Recoverable	Water	6020B	872417
LCS 500-872417/2-A	Lab Control Sample	Total Recoverable	Water	6020B	872417
310-334727-1 MS	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-1 MSD	MW-3	Total Recoverable	Ground Water	6020B	872417

Metals (Continued)

Analysis Batch: 873958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1 DU	MW-3	Total Recoverable	Ground Water	6020B	872417

Analysis Batch: 874595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-2	MW-5	Total Recoverable	Ground Water	6020B	872417
310-334727-3	MW-12	Total Recoverable	Ground Water	6020B	872417
310-334727-4	MW-14	Total Recoverable	Ground Water	6020B	872417
310-334727-5	MW-16	Total Recoverable	Ground Water	6020B	872417
310-334727-6	MW-19	Total Recoverable	Ground Water	6020B	872417
310-334727-8	MW-21	Total Recoverable	Ground Water	6020B	872417
310-334727-9	MW-D	Total Recoverable	Ground Water	6020B	872417
MB 500-872417/1-A	Method Blank	Total Recoverable	Water	6020B	872417
LCS 500-872417/2-A	Lab Control Sample	Total Recoverable	Water	6020B	872417
310-334727-1 MS	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-1 MSD	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-1 DU	MW-3	Total Recoverable	Ground Water	6020B	872417

Analysis Batch: 874752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-2	MW-5	Total Recoverable	Ground Water	6020B	872417
310-334727-3	MW-12	Total Recoverable	Ground Water	6020B	872417
310-334727-4	MW-14	Total Recoverable	Ground Water	6020B	872417
310-334727-5	MW-16	Total Recoverable	Ground Water	6020B	872417
310-334727-6	MW-19	Total Recoverable	Ground Water	6020B	872417
310-334727-8	MW-21	Total Recoverable	Ground Water	6020B	872417
310-334727-9	MW-D	Total Recoverable	Ground Water	6020B	872417
MB 500-872417/1-A	Method Blank	Total Recoverable	Water	6020B	872417
LCS 500-872417/2-A	Lab Control Sample	Total Recoverable	Water	6020B	872417
310-334727-1 MS	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-1 MSD	MW-3	Total Recoverable	Ground Water	6020B	872417
310-334727-1 DU	MW-3	Total Recoverable	Ground Water	6020B	872417

General Chemistry

Analysis Batch: 492324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-334727-1	MW-3	Total/NA	Ground Water	I-3765-85	
310-334727-2	MW-5	Total/NA	Ground Water	I-3765-85	
310-334727-3	MW-12	Total/NA	Ground Water	I-3765-85	
310-334727-4	MW-14	Total/NA	Ground Water	I-3765-85	
310-334727-5	MW-16	Total/NA	Ground Water	I-3765-85	
310-334727-6	MW-19	Total/NA	Ground Water	I-3765-85	
310-334727-7	MW-20	Total/NA	Ground Water	I-3765-85	
310-334727-8	MW-21	Total/NA	Ground Water	I-3765-85	
310-334727-9	MW-D	Total/NA	Ground Water	I-3765-85	
MB 310-492324/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-492324/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-3
Lab Sample ID: 310-334727-1
Date Collected: 06/17/26 13:17
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	492394	WSE8	EET CF	06/20/26 22:01
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:15
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 17:34
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 19:48
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-5
Lab Sample ID: 310-334727-2
Date Collected: 06/17/26 12:46
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:43
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 17:57
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:07
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-12
Lab Sample ID: 310-334727-3
Date Collected: 06/17/26 14:10
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	492394	WSE8	EET CF	06/20/26 22:24
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:46
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:00
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:09
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-14
Lab Sample ID: 310-334727-4
Date Collected: 06/17/26 10:35
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:49
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:03

Lab Chronicle

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Client Sample ID: MW-14
Lab Sample ID: 310-334727-4
Date Collected: 06/17/26 10:35
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:11
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-16
Lab Sample ID: 310-334727-5
Date Collected: 06/17/26 11:11
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	492394	WSE8	EET CF	06/20/26 22:46
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:52
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:06
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:14
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-19
Lab Sample ID: 310-334727-6
Date Collected: 06/17/26 12:08
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:54
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:09
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:16
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-20
Lab Sample ID: 310-334727-7
Date Collected: 06/17/26 11:35
Matrix: Ground Water
Date Received: 06/18/26 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 16:57
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Lab Chronicle

Client: SCS Engineers
Project/Site: Guthrie County 2026 Annual HMSP

Job ID: 310-334727-1

Client Sample ID: MW-21

Date Collected: 06/17/26 13:46
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	492552	WSE8	EET CF	06/23/26 03:14
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 17:00
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:12
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:18
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: MW-D

Date Collected: 06/17/26 12:46
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	873958	S1Z	EET CHI	07/06/26 17:03
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874752	S1Z	EET CHI	07/10/26 18:15
Total Recoverable	Prep	3005A			872417	MS	EET CHI	06/24/26 19:33 - 06/25/26 01:33 [1]
Total Recoverable	Analysis	6020B		1	874595	S1Z	EET CHI	07/09/26 20:21
Total/NA	Analysis	I-3765-85		1	492324	DGU1	EET CF	06/19/26 09:10

Client Sample ID: Trip Blank

Date Collected: 06/17/26 00:00
Date Received: 06/18/26 16:05

Lab Sample ID: 310-334727-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	492552	WSE8	EET CF	06/23/26 01:46

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-27

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-28

Method Summary

Client: SCS Engineers
Job ID: 310-334727-1
Project/Site: Guthrie County 2026 Annual HMSP

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

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310-334727 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY STATE

Project:

Receipt Information

Date/Time Received: DATE 6/18/26 TIME 1605

Received By:

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # _____ 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? ↓

#11

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: BB

Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.8

Corrected Temp (°C): 2.8

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

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

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other

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

Client Contact	**Project Manager: Nathan Ohrt**	**Site Contact: Brent Corkins**	**Date:**
Nathan Ohrt	Email. nohrt@scsengineers com	**Lab Contact: Sam Miller**	**Carrier:**
SCS Engineers	Cell 319-331-9613		
West Des Moines, Iowa	**Analysis Turnaround Time**		
	☐ CALENDAR DAYS ☐ WORKING DAYS		
	Other:_____		
Project Name. Guthrie County 2026 Annual HMSP	☐ 2 weeks		
Site Guthrie County Sanitary Landfill	☐ 1 week		
P O # 27223271 26	☐ 2 days		
	☐ 1 day		

COC No:
___1___ of ___1___ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling
Job / SDG No

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Appendix I	Appendix I metals	Arsenic	Cobalt	Total Suspended Solids	Trip Blank	Sample Specific Notes
MW-3	6-17 26	1317	G	GW		N	Y	X				X		
MW-5	6-17-26	1246	G	GW		N	Y		X			X		
MW-12	6-17-26	1410	G	GW		N	Y	X				X		
MW-14	6-17 26	1035	G	GW		N	Y		X			X		
MW-16	6 17 26	1111	G	GW		N	Y	X				X		
MW-19	6-17-26	1208	G	GW		N	Y		X			X		
MW-20	6-17-26	1135	G	GW		N	Y			X	X	X		
MW-21	6-17-26	1346	G	GW		N	Y	X				X		
MW-D	6-17-26	1246	G	GW		N	Y		X			X		
Trip Blank													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:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No ._____
Relinquished by: Konor Ruth	Company: SCS	Date/Time: 6/18 - 1400	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time	Received by:	Company:	Date/Time
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company:	Date/Time: 6/18/26 1605

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

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Miller Samuel	Carrier Tracking No(s): N/A	COC No: 310-95573.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Iowa; State Program Iowa		Job #: 310-334727 1
Address: 18410 Crossing Drive, Suite E,	Due Date Requested: 7/6/2026			
City: Tinley Park	TAT Requested (days): N/A			
State, Zip: IL, 60487				
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Guthrie County 2026 Annual HMSP	Project #: 31013618			
Site: N/A	SSOW#: N/A			

310-334727 COC

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)	6020B/3005A Appendix I Metals	6020B/3005A(MOD) Arsenic & Cobalt	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-3 (310-334727 1)	6/17/26	13:17 Central	G	Water			X		1	
MW-5 (310-334727-2)	6/17/26	12:46 Central	G	Water			X		1	
MW-12 (310-334727-3)	6/17/26	14:10 Central	G	Water			X		1	
MW-14 (310-334727-4)	6/17/26	10:35 Central	G	Water			X		1	
MW-16 (310-334727-5)	6/17/26	11 11 Central	G	Water			X		1	
MW-19 (310-334727-6)	6/17/26	12:08 Central	G	Water			X		1	
MW-20 (310-334727 7)	6/17/26	11 35 Central	G	Water				X	1	
MW-21 (310-334727-8)	6/17/26	13:46 Central	G	Water			X		1	
MW-D (310-334727-9)	6/17/26	12:46 Central	G	Water			X		1	

Preservation Codes. Other: N/A

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
1		6/19/26 1255			6/22/26 1230	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: Unchilled

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-334727-1

Login Number: 334727

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Schaufenbuel, Erin

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: 310-334727-1

Login Number: 334727
List Number: 2
Creator: Scott, Sherri L

List Source: Eurofins Chicago
List Creation: 06/22/26 01:58 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.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Unchilled
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.	True	

APPENDIX B-2 | DATA VALIDATION DOCUMENTATION

Completed by: Nathan Ohrt
Sample Date: 1/12/2026
Lab Report Date: 1/20/2026
Site Name: Guthrie County Sanitary Landfill
Project Type: Retest (MW-14 and MW-19) & Background (MW-21)
Lab Report Number: 310-232909

	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 Sensitivity and Blanks				
Method Blank Detections		X		A method blank contained chromium above the reporting limit; none of the associated samples contained the affected analyte so the data was reported.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD		X		A laboratory control sample (LCS) recovered outside control limits for silver; the analyte was biased high in the LCS and not detected in the associated samples so the data was reported.
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Nathan Ohrt
Sample Date: 6/17/2026
Lab Report Date: 7/13/2026
Site Name: Guthrie County Sanitary Landfill
Project Type: HMSP
Lab Report Number: 310-334727

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			Method 6020B - Total Recoverable: The Linear Range Check (LRC) was outside of the limit for several analytes; associated sample values were less than that of the passing high standard so the data are verifiable.
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections		X		A method blank contained zinc above the (RL) reporting limit; this concentration was less than the R Lin the method blank, so re-extraction and/or re-analysis was not performed.
Trip Blank Detections	X			No detections.
Accuracy				
ICV/CCV	X			A continuing calibration verification (CCV) recovered above the upper control limit for Chloromethane; the associated samples were non-detect for the affected analyte so the data have been reported.
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	MW-5 and duplicate sample MW-D had <50% RPD for analyzed parameters.

APPENDIX C | REPORTING PERIOD SUMMARY OF GROUNDWATER CHEMISTRY

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Summary of Groundwater Chemistry
Guthrie County SLF (39-SDP-01-73C)

Total Metals Constituents	Sample Date	MW-12 UPG	MW-21 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	1/12/2026	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/17/2026	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	1/12/2026	N/A	**0.00243**	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.001	**0.0012**	0.000306*	0.000296*	0.000617*	**0.0301**	0.00026*
	6/17/2026	N/A	N/A	N/A	0.000337*	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	1/12/2026	N/A	**0.0488**	N/A	N/A	N/A	N/A	N/A
	6/17/2026	**0.424**	**0.0447**	**0.639**	**0.0576**	**0.0626**	**0.555**	**0.0843**
	6/17/2026	N/A	N/A	N/A	**0.0616**	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	1/12/2026	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
	6/17/2026	N/A	N/A	N/A	< 0.0004	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	1/12/2026	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000439*	< 0.0005	< 0.0005
	6/17/2026	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	1/12/2026	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	6/17/2026	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	1/12/2026	N/A	**0.00266**	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.001	< 0.001	0.000709*	< 0.001	0.000972*	0.000653*	< 0.001
	6/17/2026	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	1/12/2026	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.002	< 0.002	0.000727*	0.000761*	**0.00368**	0.000576*	< 0.002
	6/17/2026	N/A	N/A	N/A	0.000794*	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	1/12/2026	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0005	< 0.0005	0.000298*	< 0.0005	**0.000819**	< 0.0005	< 0.0005
	6/17/2026	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	1/12/2026	N/A	**0.00618**	N/A	N/A	**0.0166**	N/A	**0.00549**
	6/17/2026	< 0.002	**0.00468**	**0.00422**	0.000768*	**0.0106**	**0.0112**	**0.00591**
	6/17/2026	N/A	N/A	N/A	0.000889*	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	1/12/2026	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
	6/17/2026	N/A	N/A	N/A	< 0.0025	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	1/12/2026	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	6/17/2026	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	1/12/2026	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
	6/17/2026	N/A	N/A	N/A	< 0.0004	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	1/12/2026	N/A	0.00189*	N/A	N/A	N/A	N/A	N/A
	6/17/2026	**0.000602**	**0.000431**	**0.00148**	**0.000758**	**0.00147**	**0.00046**	**0.000287**
	6/17/2026	N/A	N/A	N/A	**0.00101**	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	1/12/2026	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.02	< 0.02	< 0.02	< 0.02	0.0147*	< 0.02	< 0.02
	6/17/2026	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	1/12/2026	N/A	1.75*	N/A	N/A	**97**	N/A	< 1.88
	6/17/2026	**2.38**	< 1.88	**7.62**	**2.5**	**199**	**84**	< 1.88
	6/17/2026	N/A	N/A	N/A	**2.63**	N/A	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.

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Summary of Groundwater Chemistry
Guthrie County SLF (39-SDP-01-73C)

Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-21 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	1/12/2026	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 2	< 2	< 2	N/A	N/A	< 2	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	0.948*	N/A	N/A	< 1	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
Acetone, ug/L (CAS NO - 67-64-1)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	9.28*	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
Benzene, ug/L (CAS NO - 71-43-2)	1/12/2026	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 0.5	< 0.5	< 0.5	N/A	N/A	**0.591**	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
Bromomethane, ug/L (CAS NO - 74-83-9)	1/12/2026	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 4	< 4	< 4	N/A	N/A	< 4	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	1/12/2026	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 2	< 2	< 2	N/A	N/A	< 2	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	**1.67**	N/A	N/A	0.562*	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	1/12/2026	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 4	< 4	< 4	N/A	N/A	1.74*	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	1/12/2026	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 3	< 3	< 3	N/A	N/A	< 3	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	1/12/2026	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 3	< 3	< 3	N/A	N/A	< 3	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	**3.48**	N/A	N/A	< 1	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A

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Summary of Groundwater Chemistry
Guthrie County SLF (39-SDP-01-73C)

Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-21 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
Methylene Bromide, ug/L (CAS NO - 74-95-3)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
Styrene, ug/L (CAS NO - 100-42-5)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Toluene, ug/L (CAS NO - 108-88-3)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	**1.15**	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	1/12/2026	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 5	< 5	< 5	N/A	N/A	< 5	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	1/12/2026	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 4	< 4	< 4	N/A	N/A	< 4	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	1/12/2026	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 10	< 10	< 10	N/A	N/A	< 10	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	1/12/2026	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 1	< 1	< 1	N/A	N/A	< 1	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	1/12/2026	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/17/2026	< 3	< 3	< 3	N/A	N/A	< 3	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 | 2026 STATISTICAL METHOD AND OUTPUT

Statistical Method and Output

Purpose

The purpose of this document is to provide the statistical evaluation of groundwater analytical data collected from the groundwater monitoring network of the Guthrie County Sanitary Landfill (Landfill).

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The detection and assessment/corrective action monitoring statistical programs include diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for identification of outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset are managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data are non-detects, simple substitution is used, where non-detect values are assigned a concentration of one-half (½) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data are non-detects, the Kaplan-Meier estimator is used to define the distribution for the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

Background datasets are evaluated for outliers using the Ohio EPA Method as included in the Sanitas™ statistical software program and described below, which includes the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contain less than 75% of the measured concentrations below the PQL. Outliers are not confirmed unless a physical cause or explanation for the outlier is determined.

Management of Data (ND data < 75%)

If less than 75% of the background dataset is below the PQL, outliers are statistically evaluated using the following guidelines.

- A parametric dataset with n < 20 was evaluated with the Dixon's outlier test.
- A parametric dataset with n ≥ 20 was evaluated with the Rosner's outlier test.
- A non-parametric dataset was evaluated with the Tukey's outlier test.

In accordance with the Ohio EPA Method, if a statistically significant outlier is not found using the above tests, but the highest value data point exceeds the second highest data point by an order of magnitude, the highest point is considered an outlier.

Management of Data (ND data ≥ 75%)

If greater than or equal to 75% of the background dataset is less than the PQL, outliers are statistically evaluated using the following guidelines.

- Single detection ≥ the PQL:
  - If ≥ 50% of the background dataset has detections ≥ the method detection limit (MDL), any value ≥ two times the PQL of background is considered an outlier.
  - If < 50% of the background dataset has detections ≥ the MDL, any value ≥ the PQL of background is considered an outlier.
- Two or more detections ≥ the PQL:
  - If ≥ 50% of the background dataset has detections ≥ the MDL, any value ≥ three times the PQL of background is considered an outlier.
  - If < 50% of the background dataset has detections ≥ the MDL, any value ≥ two times the PQL of background is considered an outlier.

Confirmed outliers, if any, are shown in the Reporting Period Summary of Groundwater Chemistry included in the Annual Water Quality Report. Confirmed outliers are also shown in the historical analytical data prior to 2025, which can be found in the 2024 Annual Water Quality Report, dated January 29, 2025 (Doc #112043).

Detection Monitoring Statistical Program

The detection monitoring statistical program for the Landfill is defined by Iowa Administrative Code (IAC) 567-113.10(4)"g". Interwell prediction limits with retesting were selected as the appropriate statistical methods for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in background. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program or discharge from the monitoring point should be treated with the leachate for groundwater underdrains. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Double Quantification Rule

The quasi-statistical "double quantification" rule is used for constituents not detected in the associated background data set. If a constituent is detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/Corrective Action Statistical Program

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment/corrective action monitoring statistical evaluations are performed using the most recent eight samples or all samples if less than eight samples are available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation are established using the process below. Transformation of the distribution is not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean is calculated if the dataset has a normal distribution and no statistically significant trend is present.
- A non-parametric confidence interval around a median is calculated if the dataset does not have a normal distribution and no statistically significant trend is present.
- Non-parametric confidence bands around a Theil-Sen trend line are calculated if the dataset has a statistically significant trend.

If the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required.

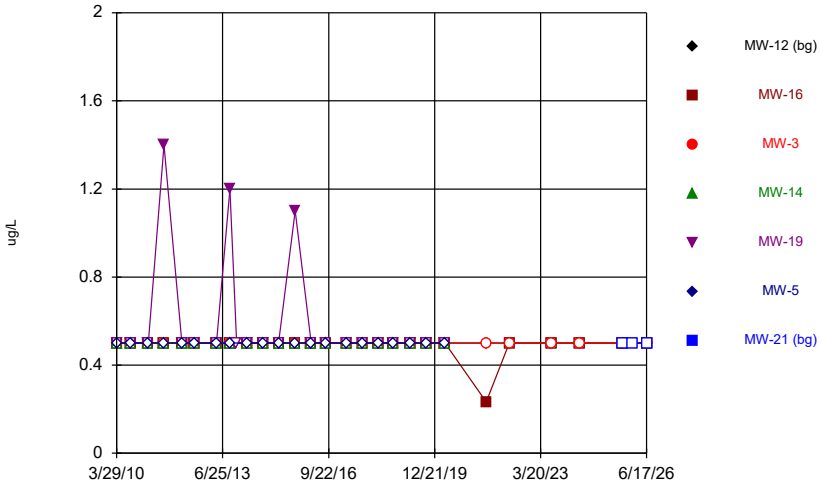
Statistical Software Output

Sanitas™ statistical software was used to perform the statistical evaluation. Listed below are the statistical outputs attached to this report for the 2026 statistical evaluation

Time Series Plots

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

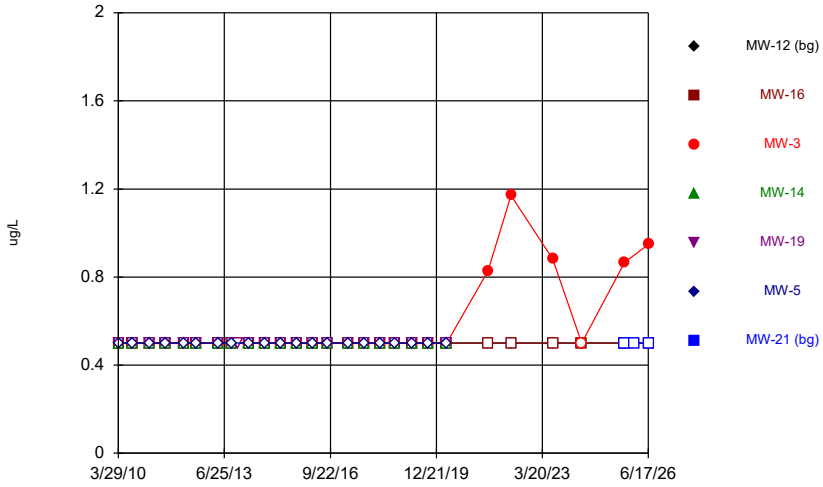
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

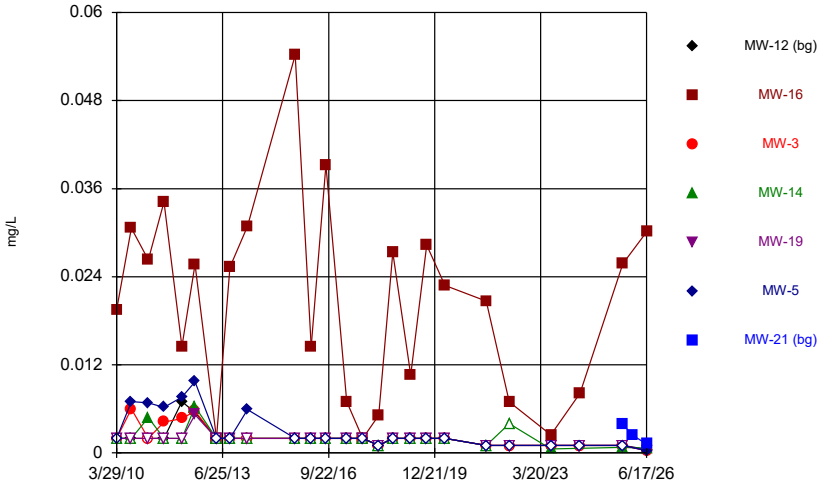
Time Series



Constituent: 1,4-Dichlorobenzene Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

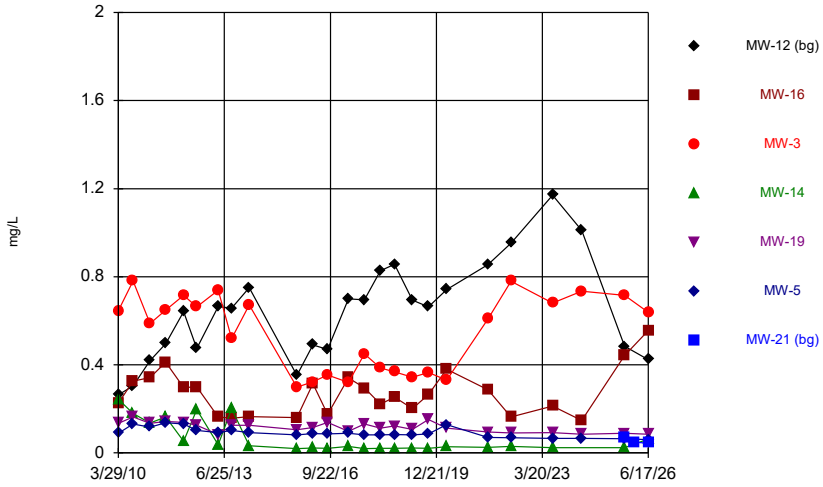
Time Series



Constituent: Arsenic Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

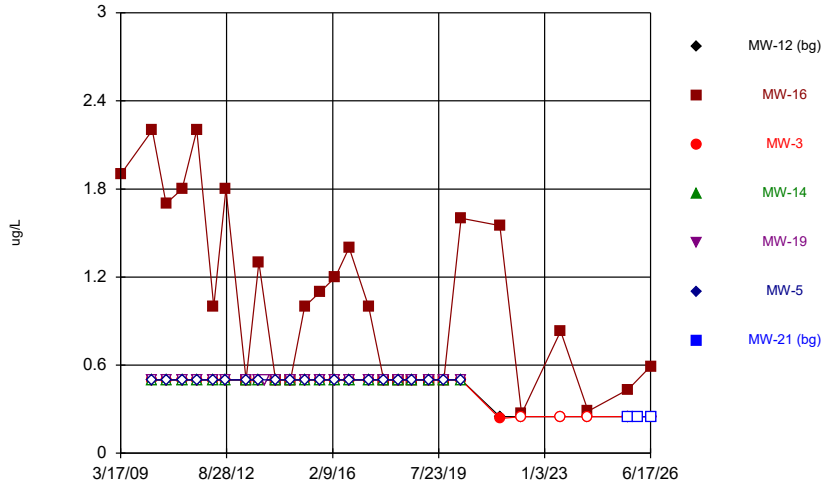
Time Series



Constituent: Barium Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

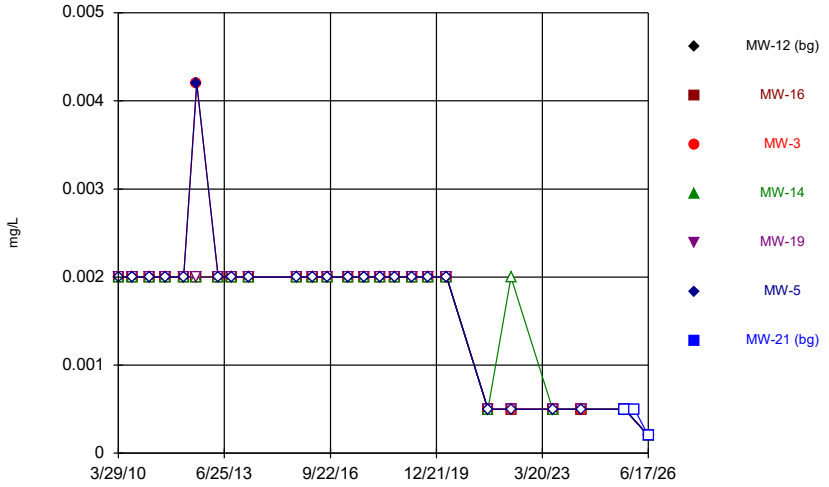
Time Series



Constituent: Benzene Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

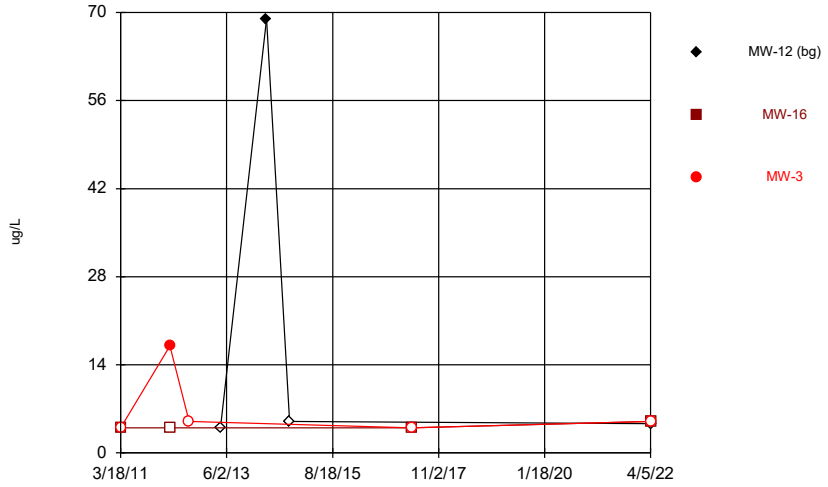
Time Series



Constituent: Beryllium Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

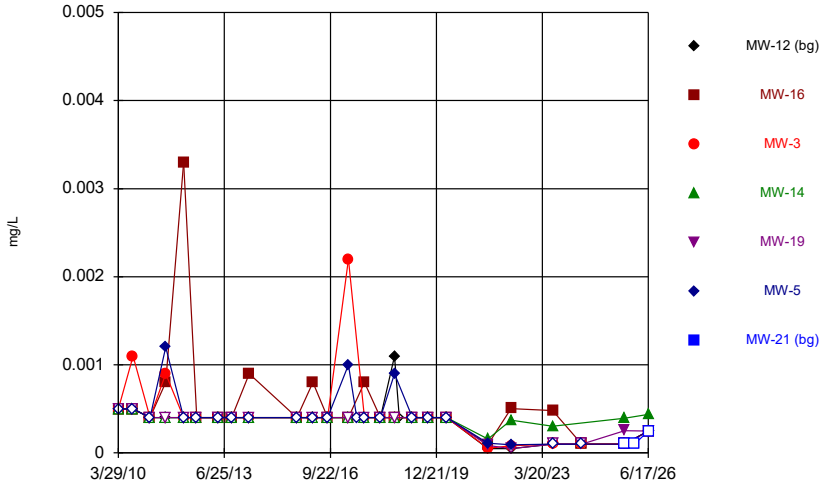
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Serie
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

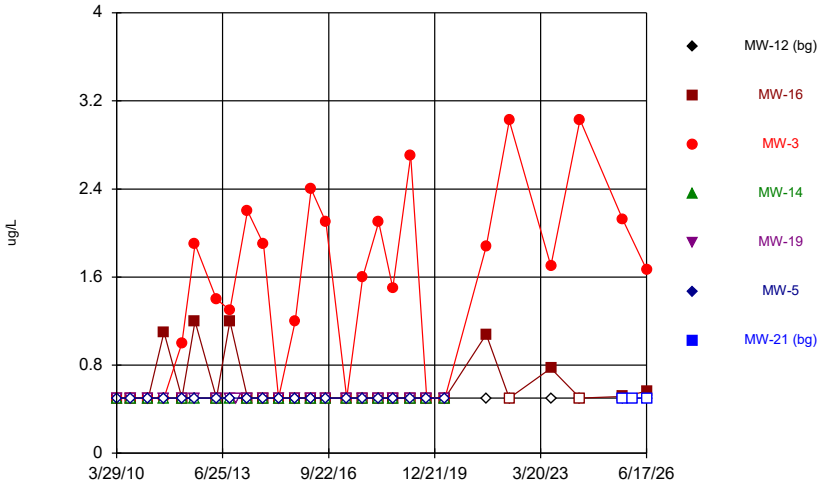
Time Series



Constituent: Cadmium Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

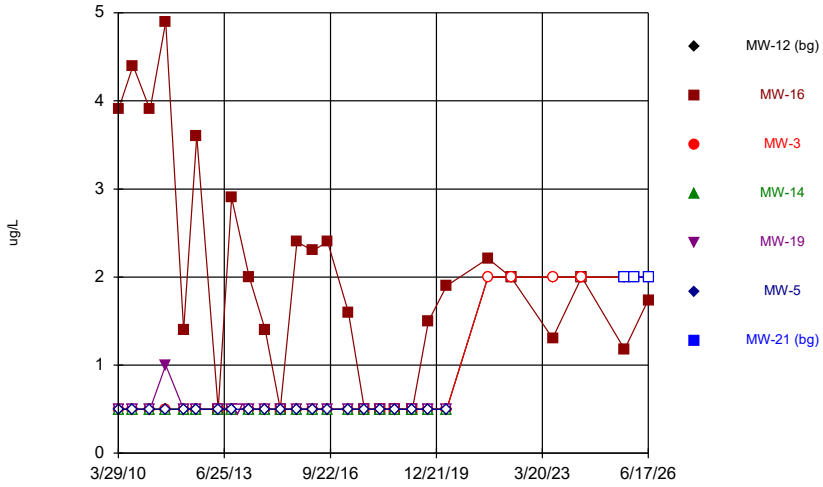
Time Series



Constituent: Chlorobenzene Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

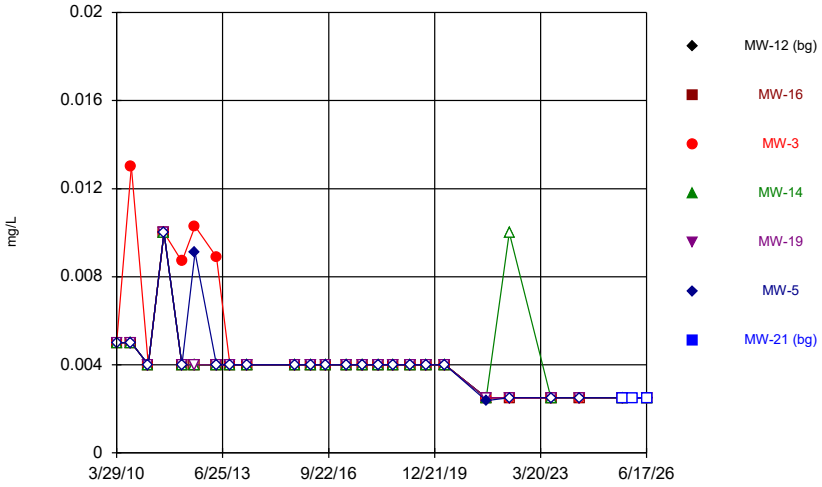
Time Series



Constituent: Chloroethane Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

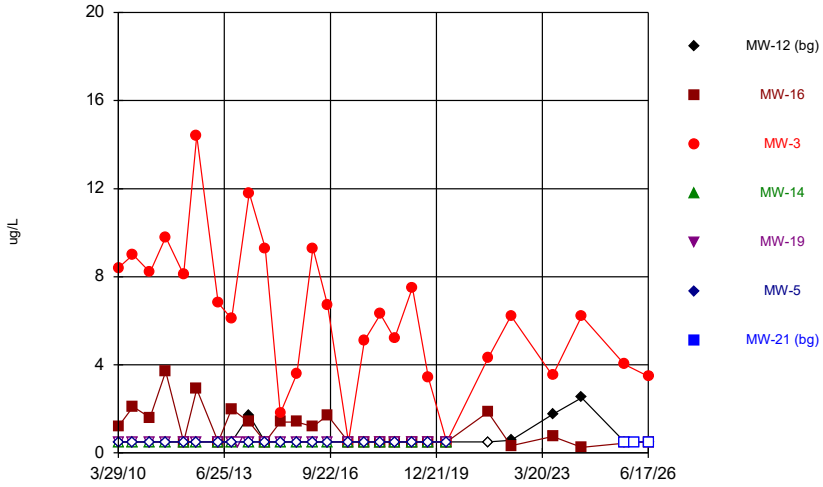
Time Series



Constituent: Chromium Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

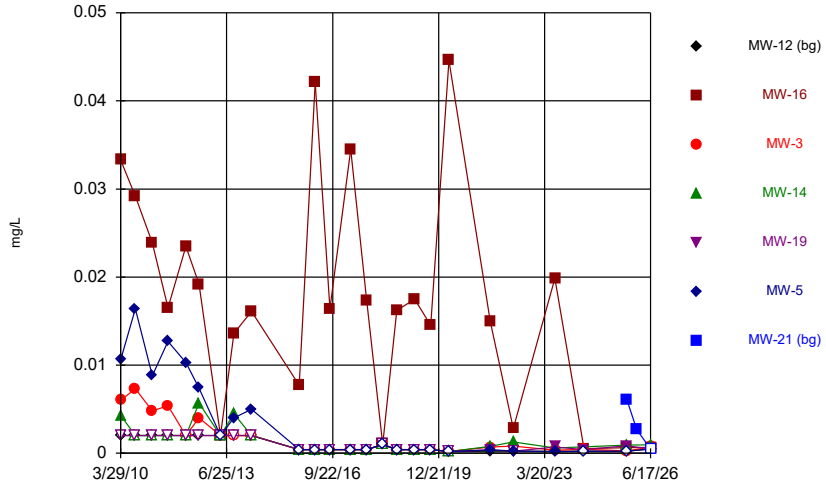
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

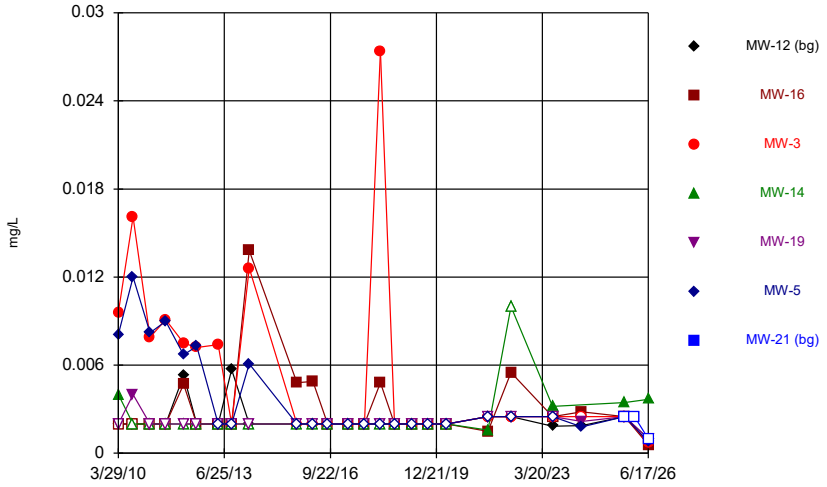
Time Series



Constituent: Cobalt Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

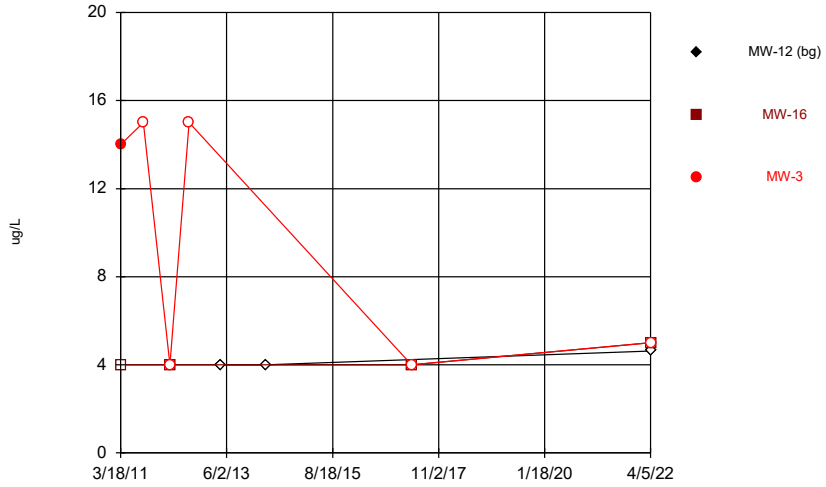
Time Series



Constituent: Copper Analysis Run 7/23/2026 12:00 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

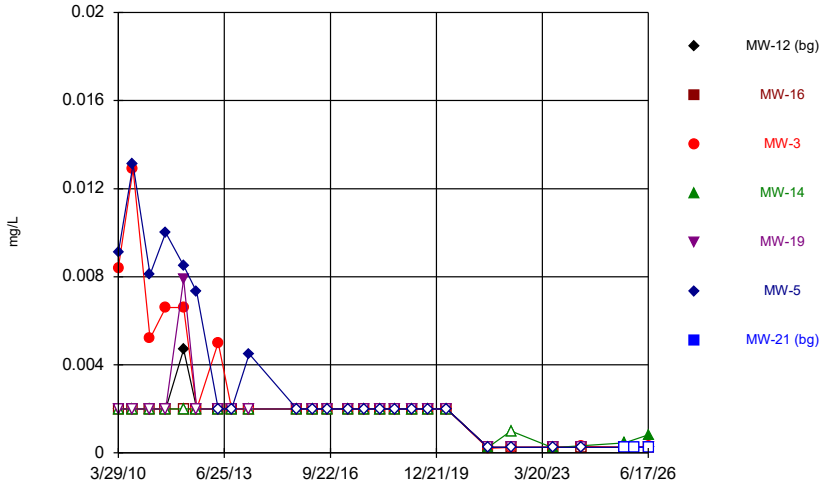
Time Series



Constituent: Diethyl phthalate Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

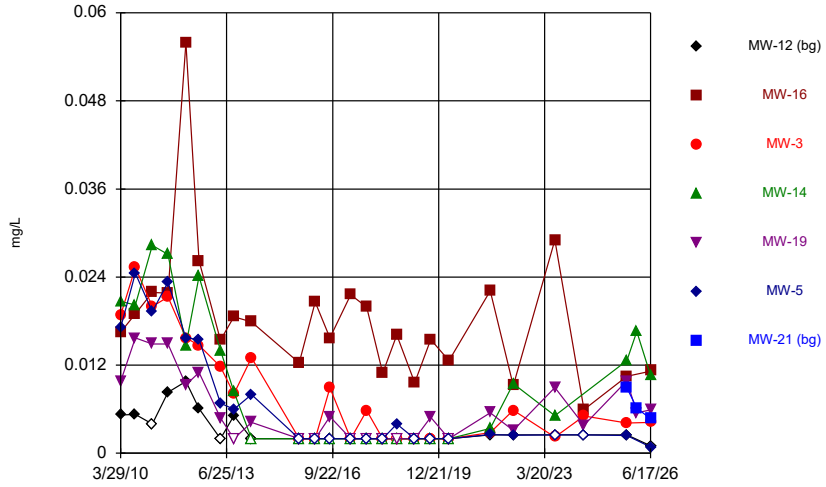
Time Series



Constituent: Lead Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

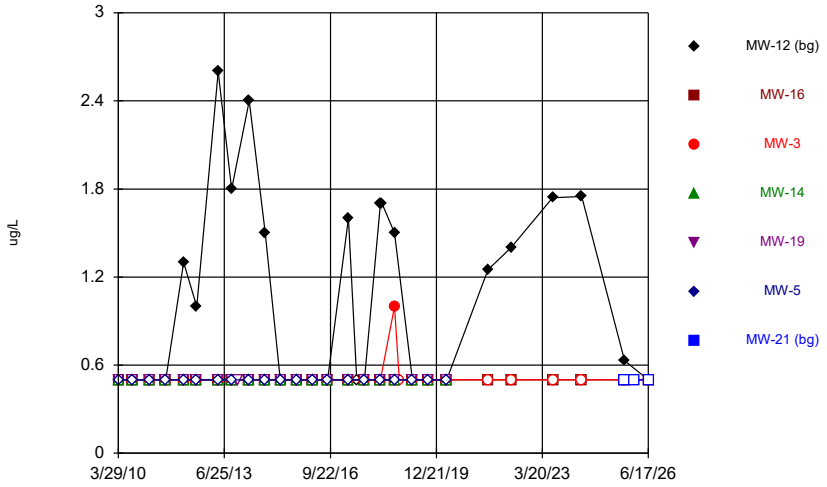
Time Series



Constituent: Nickel Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

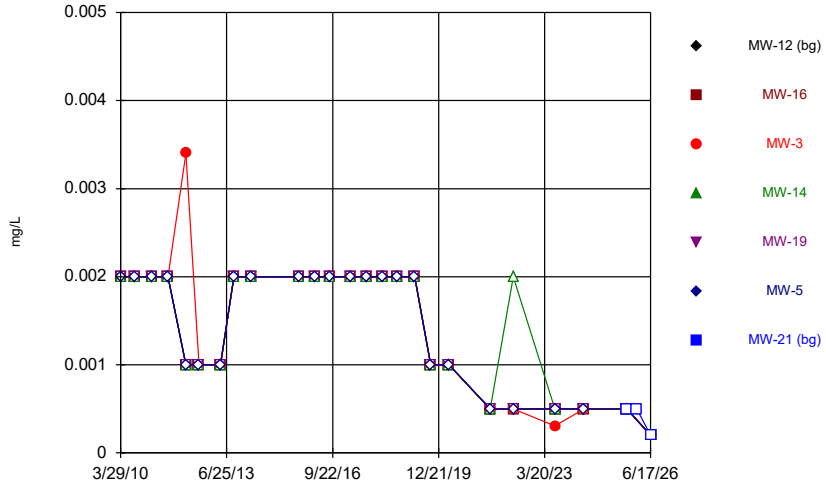
Time Series



Constituent: Tetrachloroethene Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

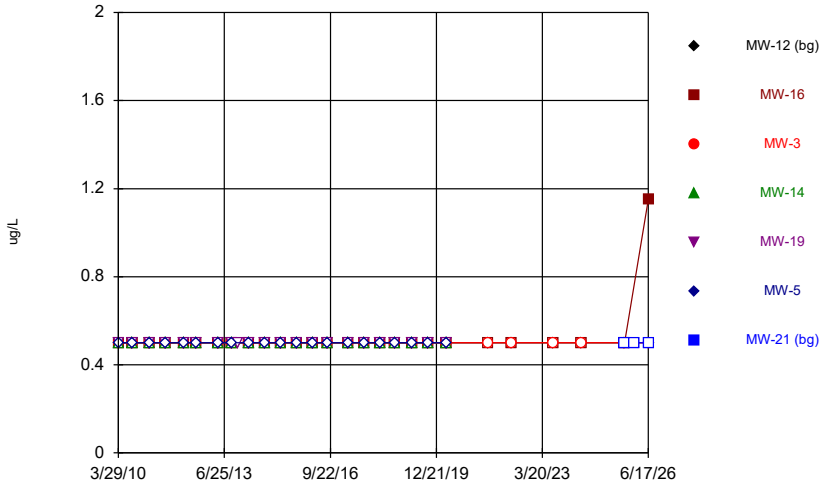
Time Series



Constituent: Thallium Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Hollow symbols indicate censored values.

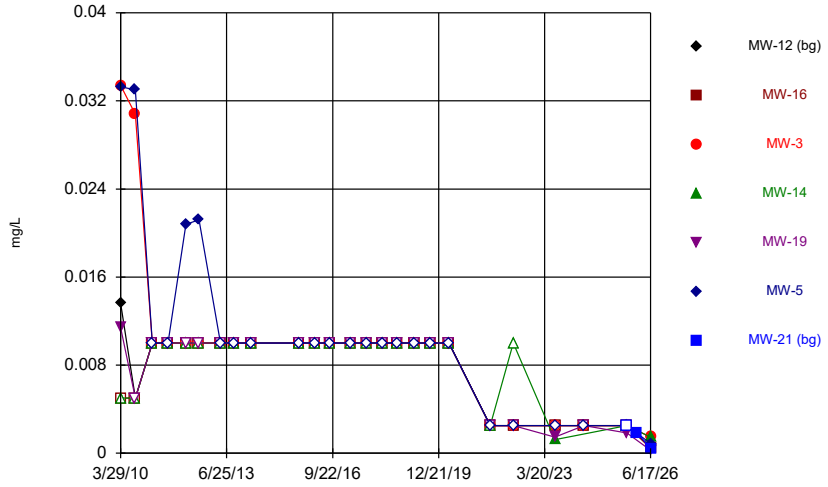
Time Series



Constituent: Toluene Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

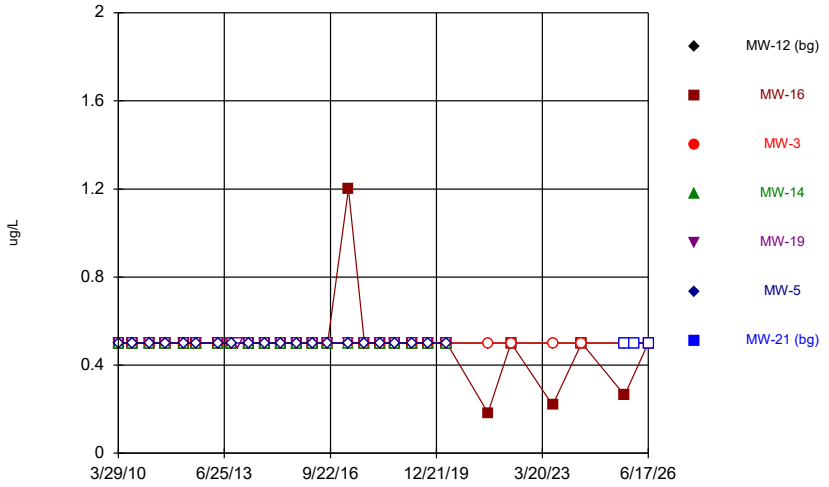
Time Series



Constituent: Vanadium Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

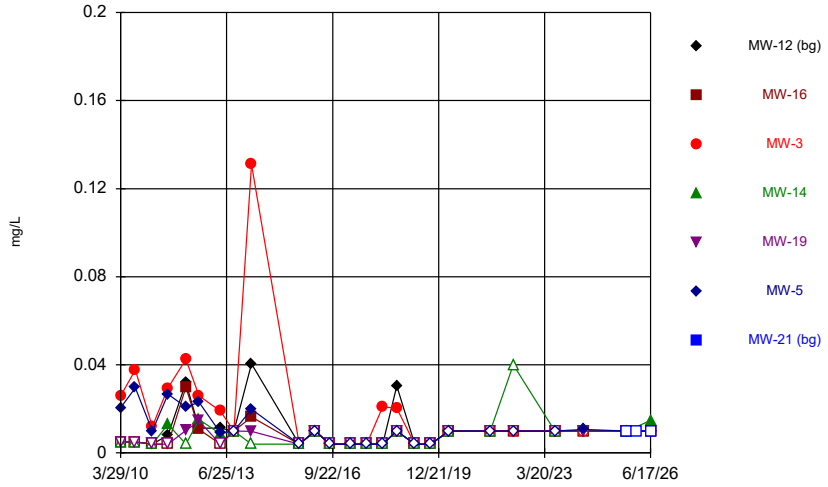
Time Series



Constituent: Vinyl Chloride Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 7/23/2026 12:01 PM View: 2026_AWQR-Time_Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Outlier Tests Summary Table and Graphs

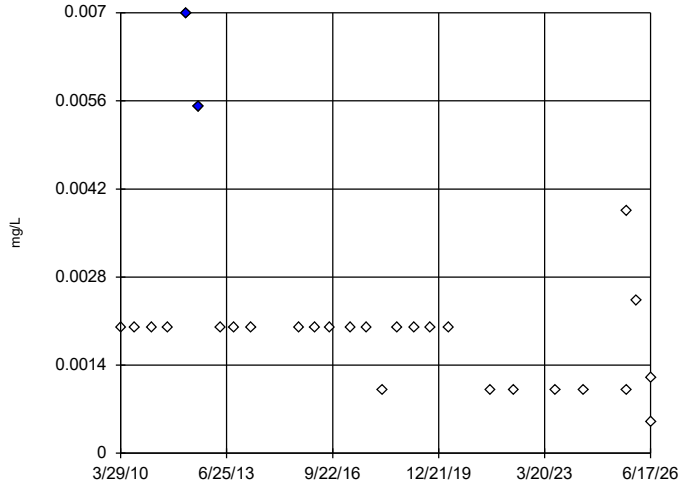
BG Outlier Analysis

Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP Printed 7/28/2026, 9:58 AM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Distrib...	Normality ...
Arsenic (mg/L)	**MW-12,MW-21**	**Yes**	**0.007,0.0055**	**n/a w/combined bg**	**NP (nrm)**	**NaN**	**28**	**0.002089**	**0.001355**	**unknown**	**ShapiroWilk**
Barium (mg/L)	**MW-12,MW-21**	**Yes**	**0.0447,0.0488,0.0722**	**n/a w/combined bg**	**EPA 1989**	**0.05**	**28**	**0.5793**	**0.2826**	**normal**	**ShapiroWilk**
Cadmium (mg/L)	**MW-12,MW-21**	**Yes**	**0.0011**	**n/a w/combined bg**	**NP (nrm)**	**NaN**	**29**	**0.0003448**	**0.0002037**	**unknown**	**ShapiroWilk**
Cobalt (mg/L)	MW-12,MW-21	n/a	n/a	n/a w/combined bg	NP (nrm)	NaN	28	0.001193	0.001267	unknown	ShapiroWilk
Copper (mg/L)	**MW-12,MW-21**	**Yes**	**0.0053,0.0057,0.001**	**n/a w/combined bg**	**NP (nrm)**	**NaN**	**28**	**0.002258**	**0.0009815**	**unknown**	**ShapiroWilk**
Lead (mg/L)	MW-12,MW-21	n/a	n/a	n/a w/combined bg	NP (nrm)	NaN	28	0.001534	0.001032	unknown	ShapiroWilk
Nickel (mg/L)	MW-12,MW-21	No	n/a	n/a w/combined bg	NP (nrm)	NaN	28	0.00361	0.002391	unknown	ShapiroWilk
Vanadium (mg/L)	MW-12,MW-21	n/a	n/a	n/a w/combined bg	NP (nrm)	NaN	28	0.007376	0.003983	unknown	ShapiroWilk
Zinc (mg/L)	MW-12,MW-21	n/a	n/a	n/a w/combined bg	NP (nrm)	NaN	28	0.01055	0.00895	unknown	ShapiroWilk

Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

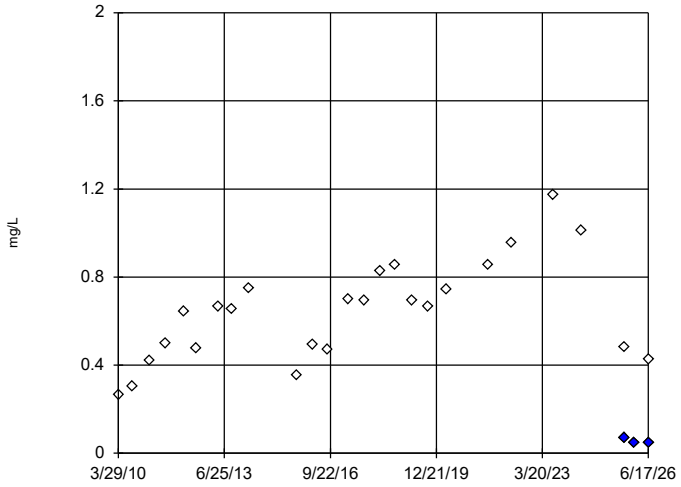
High cutoff = 0.0047, low cutoff = -0.0016, based on IQR multiplier of 3.

Constituent: Arsenic Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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EPA 1989 Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

Statistical outliers are drawn as solid.
Mean 0.5793, std. dev. 0.2826, critical Tn 2.714. After removing suspect data: mean 0.5991, std. dev. 0.2675, Tn 2.698; mean 0.6203, std. dev. 0.2486, Tn 2.681; mean 0.6422, std. dev. 0.2267, Tn 2.663.

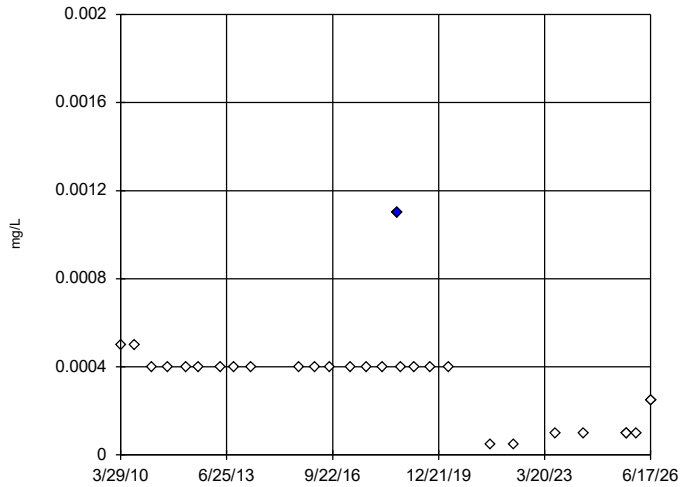
Normality test used:
Shapiro Wilk@alpha = 0.05
Calculated = 0.9704
Critical = 0.918
The distribution, after removal of suspect values, was found to be normally distributed.

Constituent: Barium Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 29

Outlier is drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

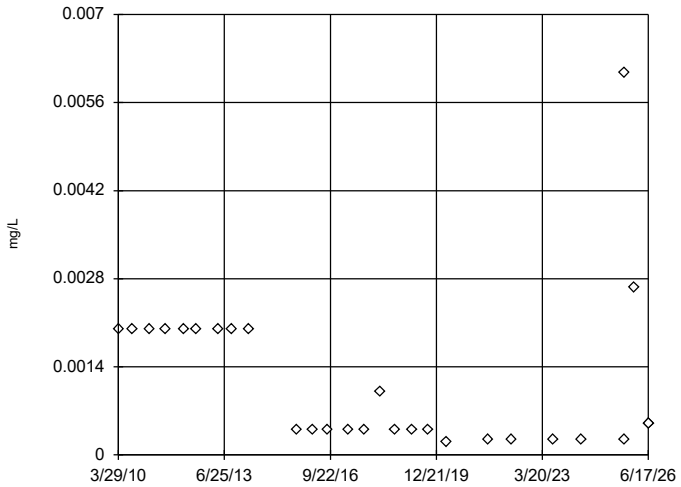
High cutoff = 0.001075, low cutoff = -0.0005, based on IQR multiplier of 3.

Constituent: Cadmium Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

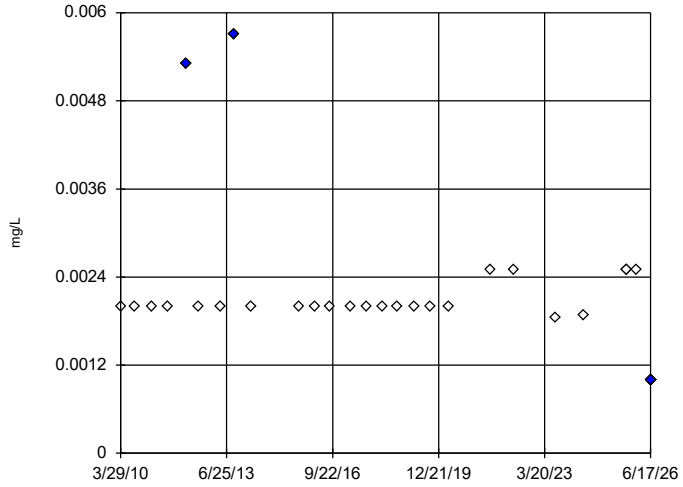
The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Cobalt Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

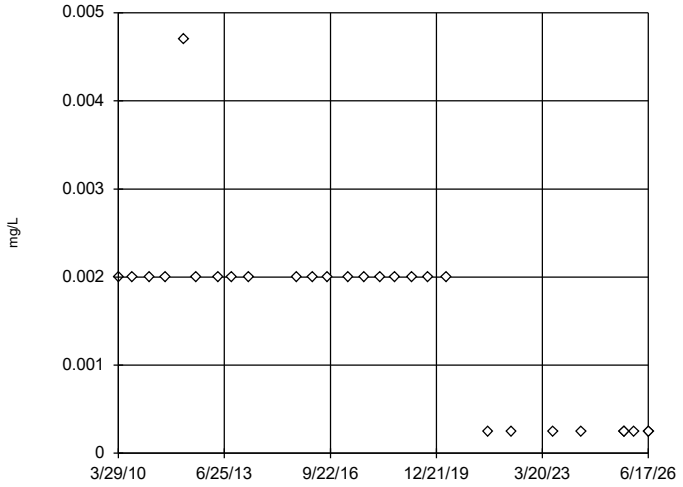
High cutoff = 0.003, low cutoff = 0.00125, based on IQR multiplier of 3.

Constituent: Copper Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

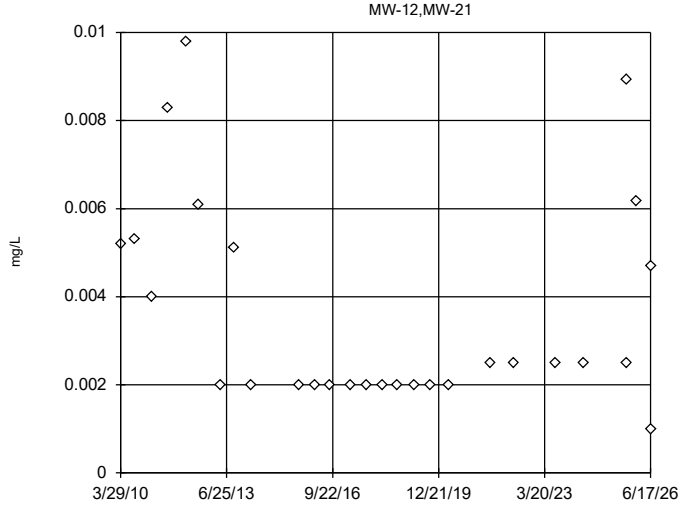
The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Lead Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

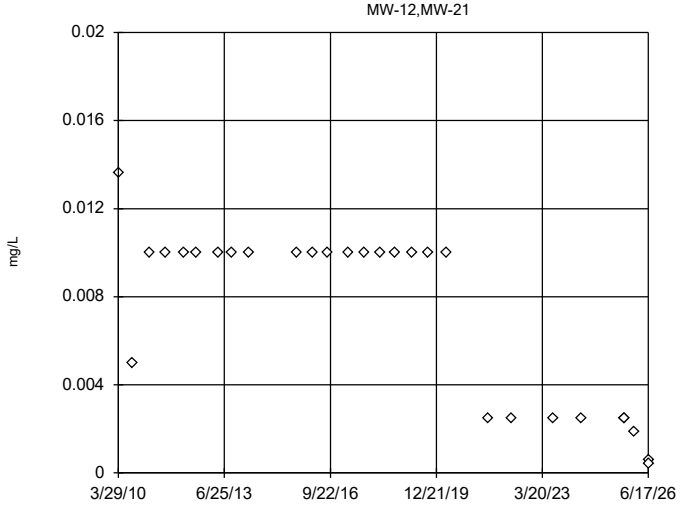
High cutoff = 0.0146, low cutoff = -0.00745, based on IQR multiplier of 3.

Constituent: Nickel Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

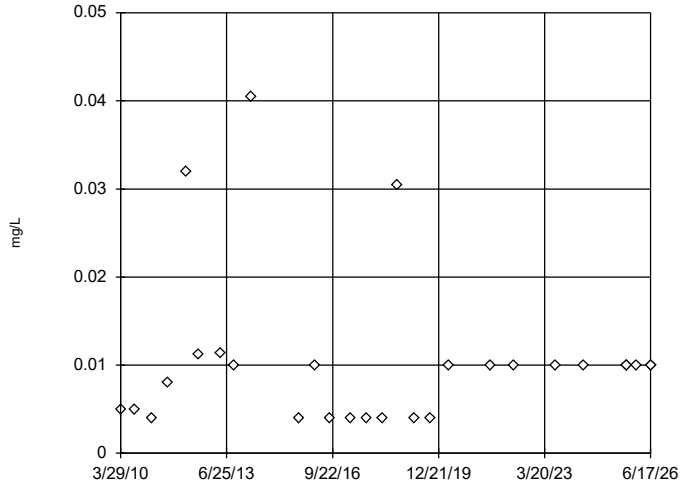
The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Vanadium Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Tukey's Outlier Screening, Pooled Background

MW-12,MW-21



n = 28

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

The results were invalidated, because both the lower and upper quartiles represent reporting limits.

Constituent: Zinc Analysis Run 7/28/2026 9:55 AM View: 2026_AWQR-Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Prediction Limit Summary Table and Graphs

Prediction Limit

Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP Printed 7/23/2026, 2:31 PM

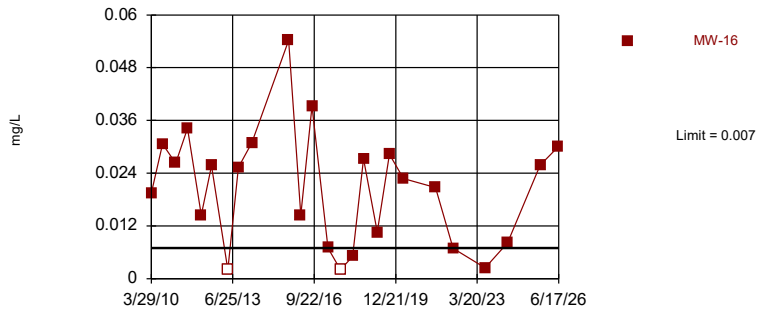
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**MW-16**	**0.007**	**n/a**	**6/17/2026**	**0.0301**	**Yes**	**28**	**MW-12,MW-21**	**82.14**	**n/a**	**0.03448**	**NP Inter (NDs)**
Barium (mg/L)	MW-16	1.291	n/a	6/17/2026	0.555	No	28	MW-12,MW-21	0	No	0.01	Param Inter
Barium (mg/L)	MW-3	1.291	n/a	6/17/2026	0.639	No	28	MW-12,MW-21	0	No	0.01	Param Inter
Barium (mg/L)	MW-14	1.291	n/a	6/17/2026	0.0626	No	28	MW-12,MW-21	0	No	0.01	Param Inter
Barium (mg/L)	MW-19	1.291	n/a	6/17/2026	0.0843	No	28	MW-12,MW-21	0	No	0.01	Param Inter
Barium (mg/L)	MW-5	1.291	n/a	6/17/2026	0.0596	No	28	MW-12,MW-21	0	No	0.01	Param Inter
Copper (mg/L)	MW-14	0.0057	n/a	6/17/2026	0.00368	No	28	MW-21,MW-12	85.71	n/a	0.03448	NP Inter (NDs)
Lead (mg/L)	MW-14	0.0047	n/a	6/17/2026	0.000819	No	28	MW-21,MW-12	96.43	n/a	0.03448	NP Inter (NDs)
Nickel (mg/L)	**MW-16**	**0.0098**	**n/a**	**6/17/2026**	**0.0112**	**Yes**	**28**	**MW-12,MW-21**	**67.86**	**n/a**	**0.03283**	**NP Inter (NDs)**
Nickel (mg/L)	MW-3	0.0098	n/a	6/17/2026	0.00422	No	28	MW-12,MW-21	67.86	n/a	0.03283	NP Inter (NDs)
Nickel (mg/L)	**MW-14**	**0.0098**	**n/a**	**6/17/2026**	**0.0106**	**Yes**	**28**	**MW-12,MW-21**	**67.86**	**n/a**	**0.03283**	**NP Inter (NDs)**
Nickel (mg/L)	MW-19	0.0098	n/a	6/17/2026	0.00591	No	28	MW-12,MW-21	67.86	n/a	0.03283	NP Inter (NDs)
Vanadium (mg/L)	MW-16	0.0136	n/a	6/17/2026	0.00046	No	28	MW-21,MW-12	85.71	n/a	0.03233	NP Inter (NDs)
Vanadium (mg/L)	MW-3	0.0136	n/a	6/17/2026	0.00148	No	28	MW-21,MW-12	85.71	n/a	0.03233	NP Inter (NDs)
Vanadium (mg/L)	MW-14	0.0136	n/a	6/17/2026	0.00147	No	28	MW-21,MW-12	85.71	n/a	0.03233	NP Inter (NDs)
Vanadium (mg/L)	MW-19	0.0136	n/a	6/17/2026	0.000287	No	28	MW-21,MW-12	85.71	n/a	0.03233	NP Inter (NDs)
Vanadium (mg/L)	MW-5	0.0136	n/a	6/17/2026	0.000884	No	28	MW-21,MW-12	85.71	n/a	0.03233	NP Inter (NDs)

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Hollow symbols indicate censored values.

Exceeds Limit: MW-16

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 82.14% NDs. Report alpha = 0.03448. Most recent point compared to limit.

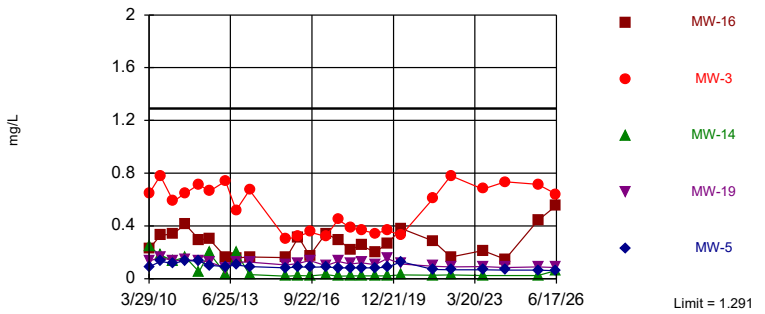
Constituent: Arsenic Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.5793, Std. Dev.=0.2826, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9714, critical = 0.896. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

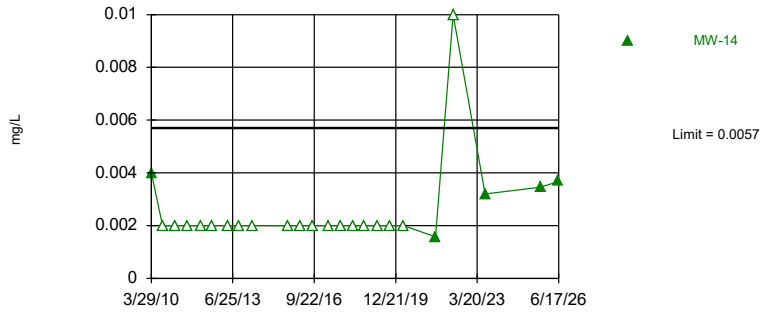
Constituent: Barium Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 85.71% NDs. Report alpha = 0.03448. Most recent point compared to limit.

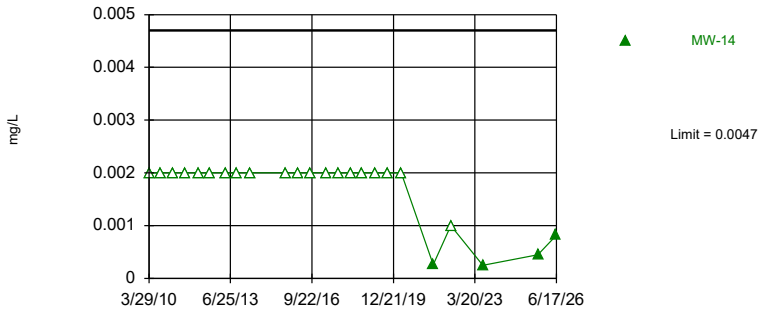
Constituent: Copper Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 96.43% NDs. Report alpha = 0.03448. Most recent point compared to limit.

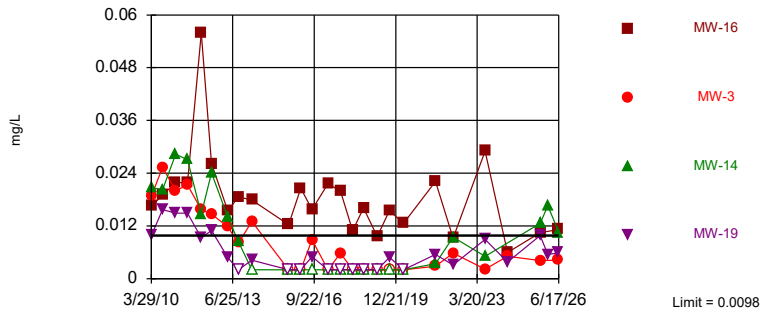
Constituent: Lead Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA
Hollow symbols indicate censored values.

Exceeds Limit: MW-16, MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 67.86% NDs. Report alpha = 0.125. Individual comparison alpha = 0.03283. Most recent point for each compliance well compared to limit.

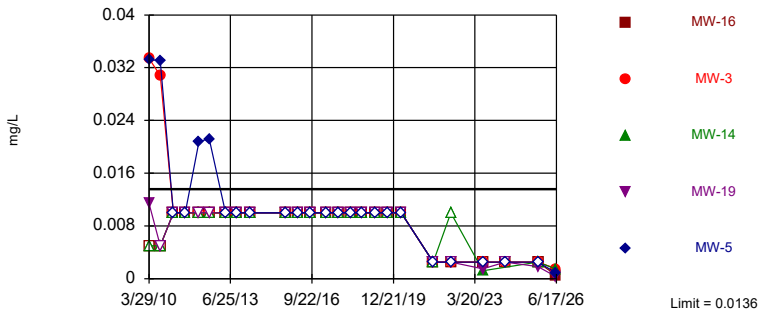
Constituent: Nickel Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 85.71% NDs. Report alpha = 0.1515. Individual comparison alpha = 0.03233. Most recent point for each compliance well compared to limit.

Constituent: Vanadium Analysis Run 7/23/2026 2:29 PM View: 2026_AWQR-Interwell_PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sen's Slope/Mann Kendall Trend Test Summary Table and Graphs

Trend Test

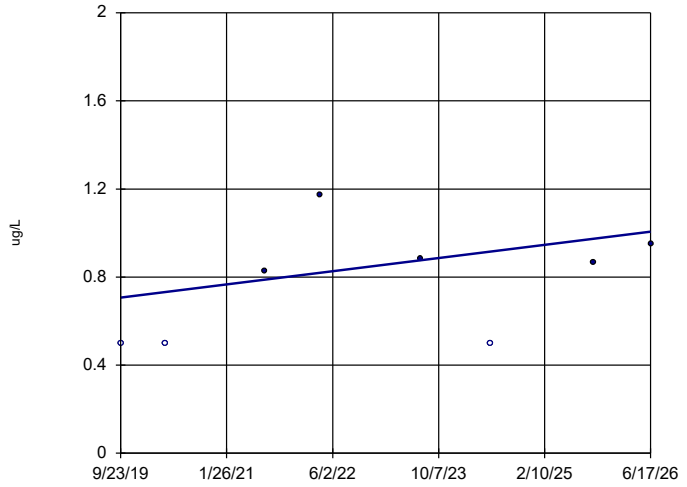
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR Printed 7/23/2026, 5:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,4-Dichlorobenzene (ug/L)	MW-3	0.0444	11	21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-16	-0.00007455	0	21	No	8	0	0.01	NP
Barium (mg/L)	MW-3	0.04228	10	21	No	8	0	0.01	NP
Barium (mg/L)	MW-12	-0.001735	0	21	No	8	0	0.01	NP
Barium (mg/L)	MW-16	0.02019	4	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-16	-0.06364	-6	-21	No	8	12.5	0.01	NP
Bis[2-ethylhexyl]phthalate (ug/L)	MW-3	0	0	12	No	5	80	0.01	NP
Bis[2-ethylhexyl]phthalate (ug/L)	MW-12	0.01053	0	8	No	4	75	0.01	NP
Cadmium (mg/L)	MW-16	-0.00001996	-4	-21	No	8	62.5	0.01	NP
Chlorobenzene (ug/L)	MW-3	0.1903	9	21	No	8	25	0.01	NP
Chlorobenzene (ug/L)	MW-16	0.001415	6	21	No	8	50	0.01	NP
Chloroethane (ug/L)	MW-16	-0.05224	-5	-21	No	8	25	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-3	0.06606	4	21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-12	0	6	21	No	8	62.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-16	-0.009105	-5	-21	No	8	37.5	0.01	NP
Cobalt (mg/L)	MW-3	0.000009627	4	21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-16	-0.002949	-12	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-16	0	0	21	No	8	50	0.01	NP
Diethyl phthalate (ug/L)	MW-3	-0.8139	-3	-14	No	6	83.33	0.01	NP
Nickel (mg/L)	MW-3	0.0003409	13	21	No	8	25	0.01	NP
Nickel (mg/L)	MW-16	-0.0007354	-6	-21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	MW-12	0.02294	7	21	No	8	37.5	0.01	NP
Toluene (ug/L)	MW-16	0	7	21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-3	-0.0004243	-17	-21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-12	-0.0007896	-17	-21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-16	-0.0008487	-17	-21	No	8	87.5	0.01	NP

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.0444 units per year.

Mann-Kendall statistic = 11
critical = 21

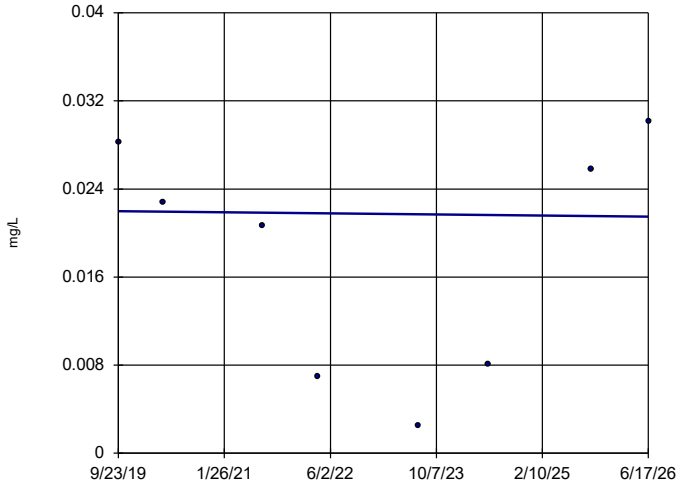
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: 1,4-Dichlorobenzene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 A
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-16



n = 8

Slope = -0.00007455 units per year.

Mann-Kendall statistic = 0
critical = 21

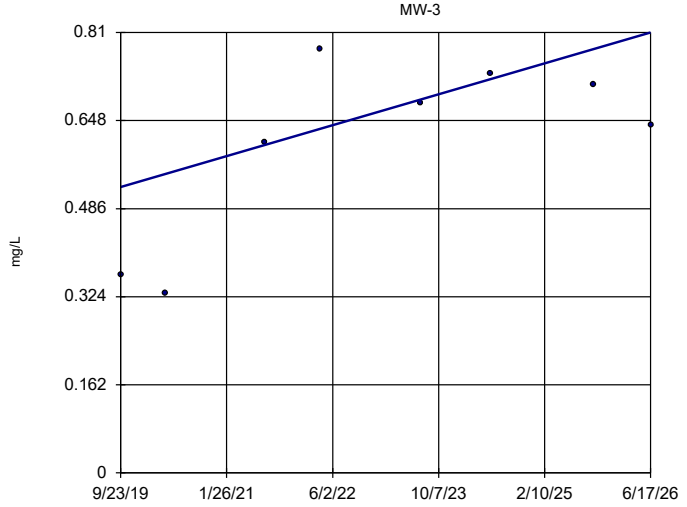
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-3



n = 8

Slope = 0.04228 units per year.

Mann-Kendall statistic = 10
critical = 21

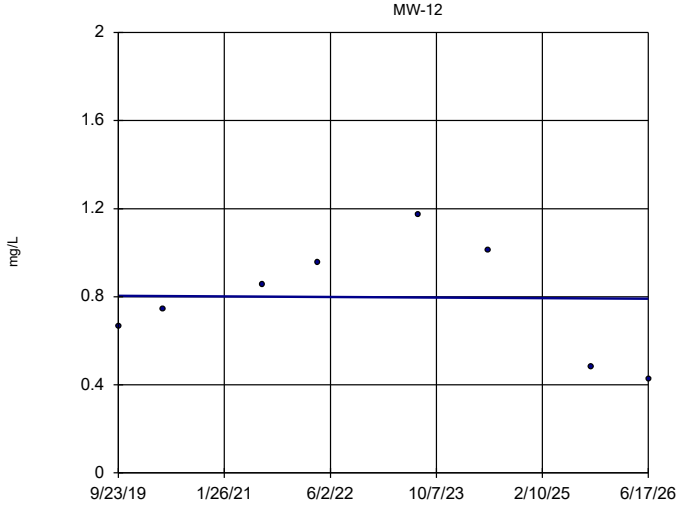
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-12



n = 8

Slope = -0.001735 units per year.

Mann-Kendall statistic = 0
critical = 21

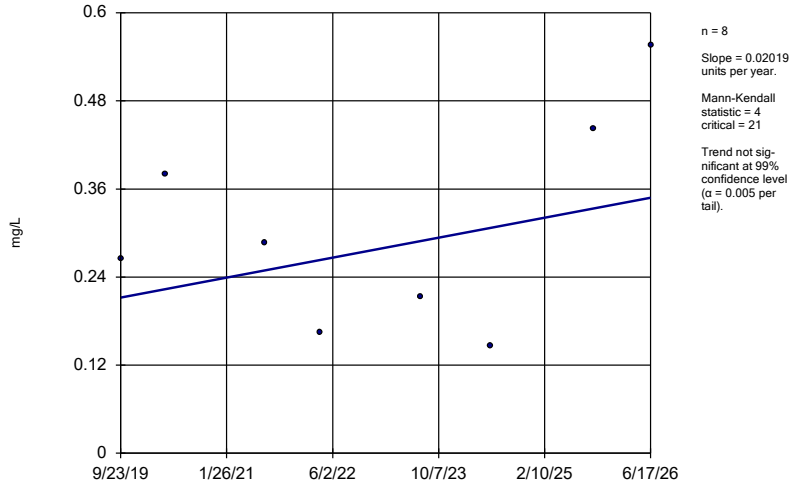
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-16

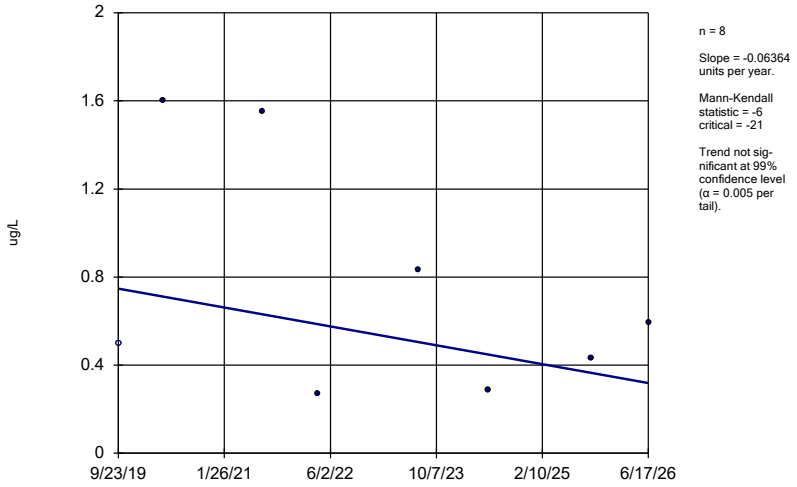


Constituent: Barium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

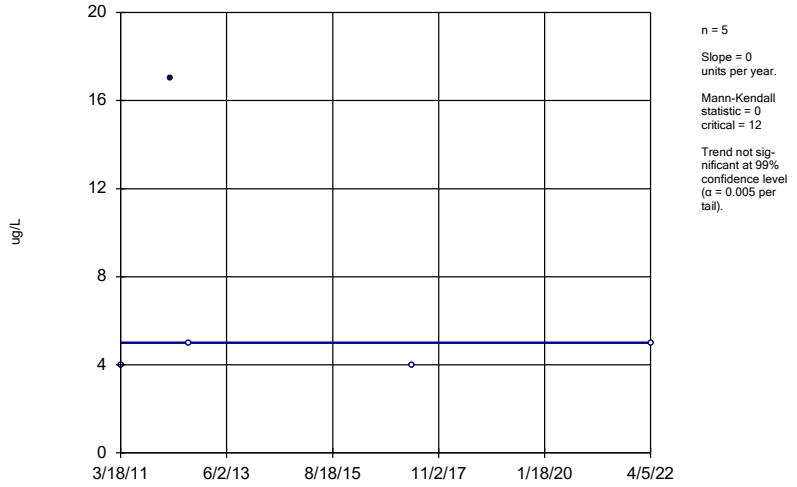


Constituent: Benzene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

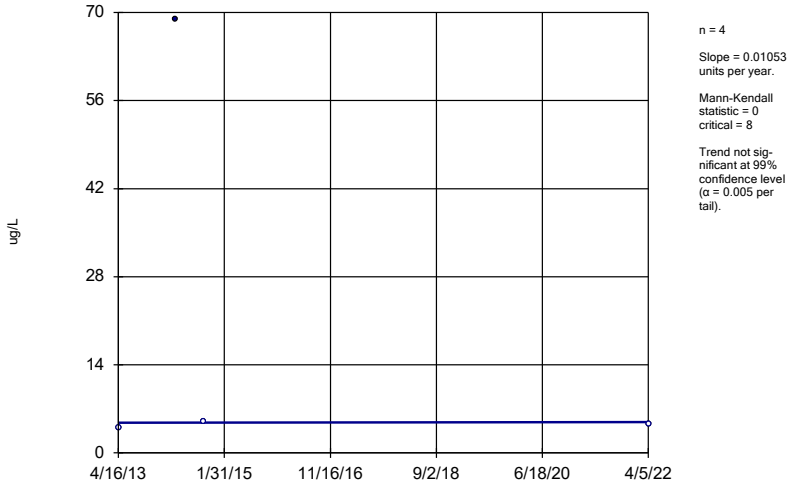


Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_20
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12

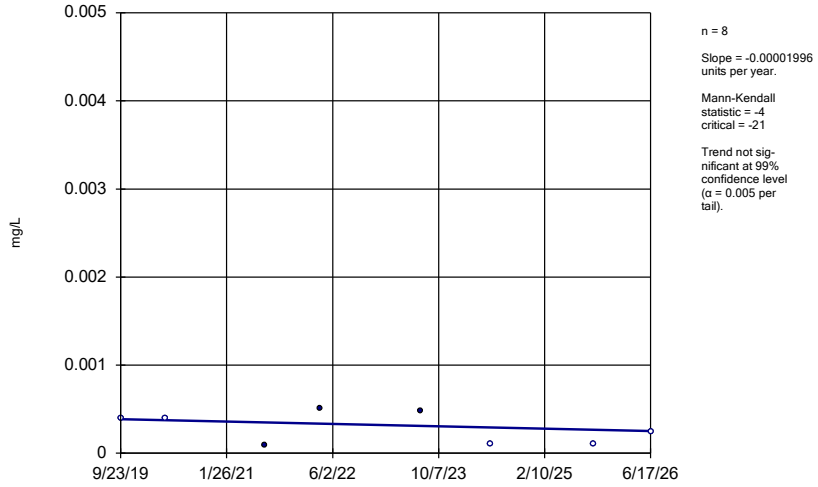


Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_20
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.00001996 units per year.

Mann-Kendall statistic = -4
critical = -21

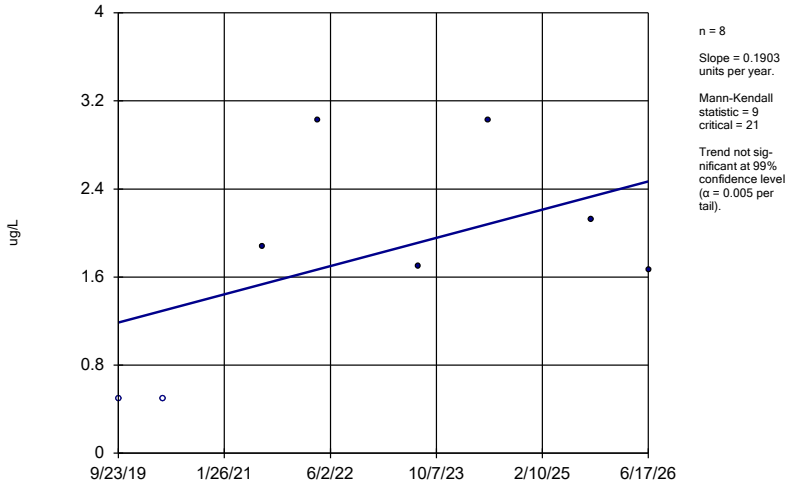
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.1903 units per year.

Mann-Kendall statistic = 9
critical = 21

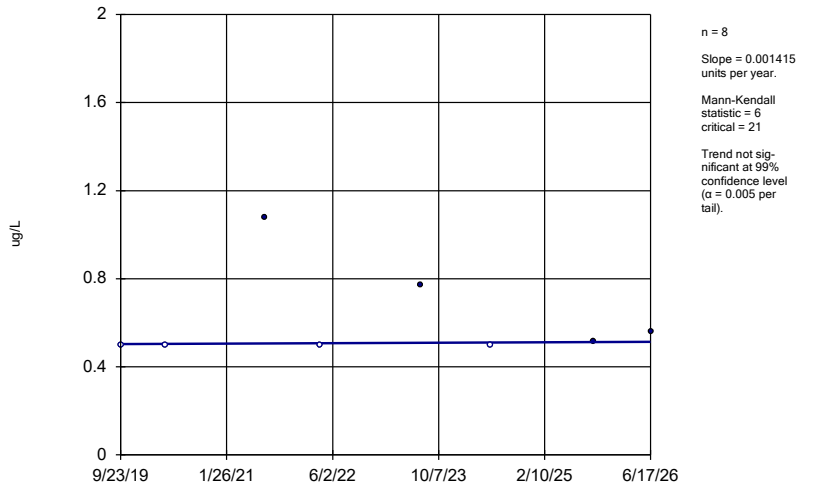
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chlorobenzene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = 0.001415 units per year.

Mann-Kendall statistic = 6
critical = 21

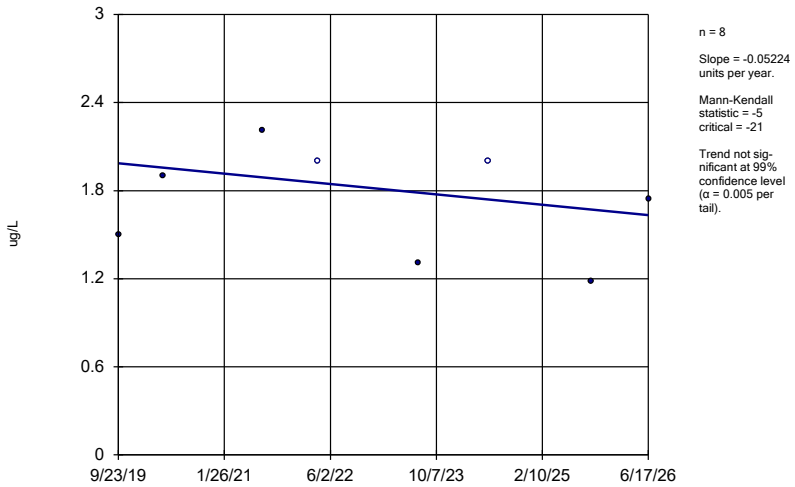
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chlorobenzene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-16



n = 8

Slope = -0.05224 units per year.

Mann-Kendall statistic = -5
critical = -21

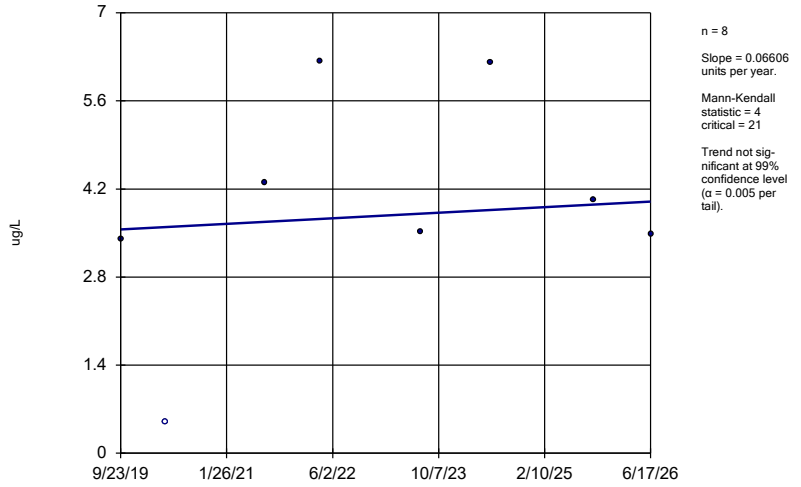
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.06606 units per year.

Mann-Kendall statistic = 4
critical = 21

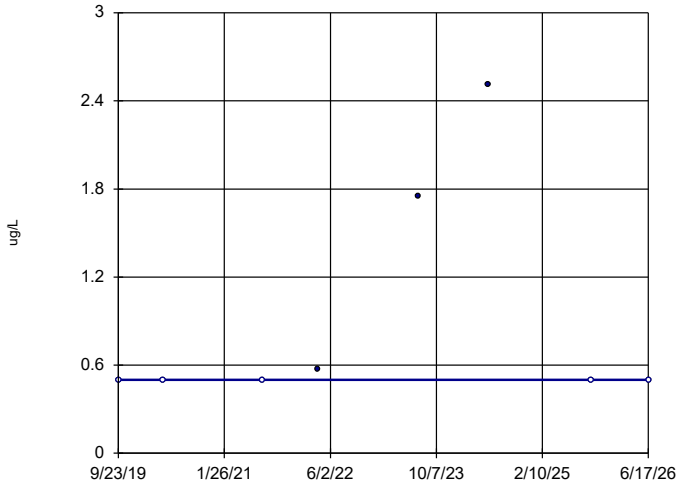
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 21

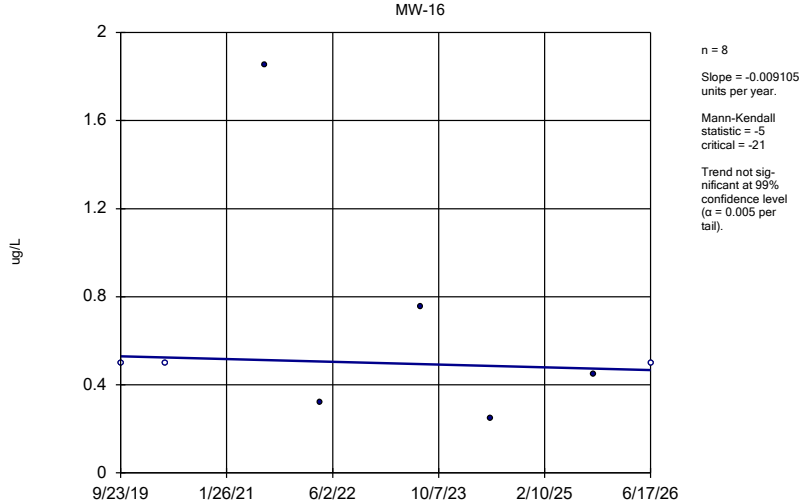
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.009105 units per year.

Mann-Kendall statistic = -5
critical = -21

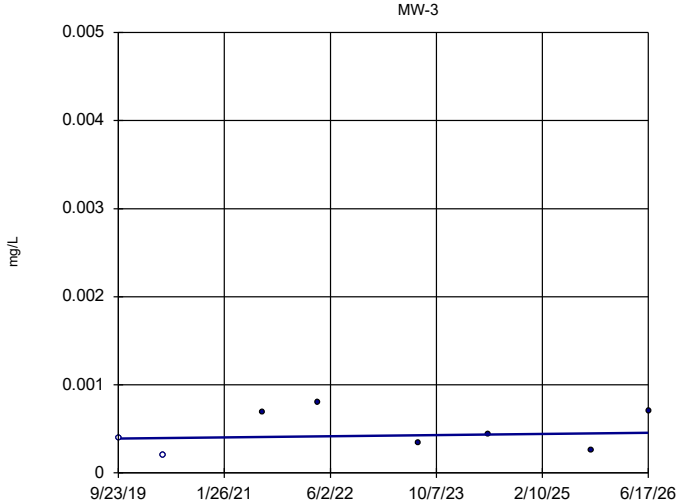
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.000009627 units per year.

Mann-Kendall statistic = 4
critical = 21

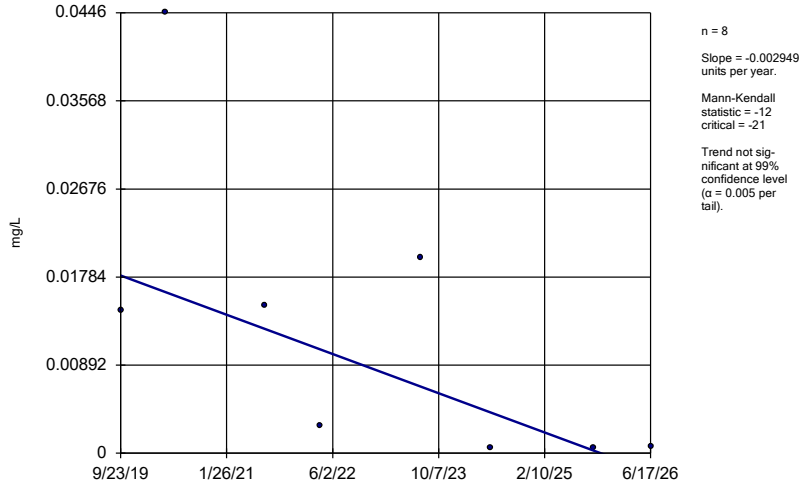
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-16



n = 8

Slope = -0.002949 units per year.

Mann-Kendall statistic = -12
critical = -21

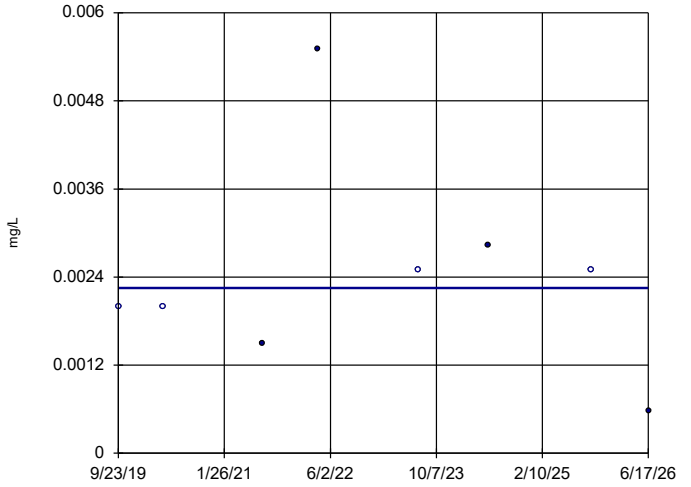
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 21

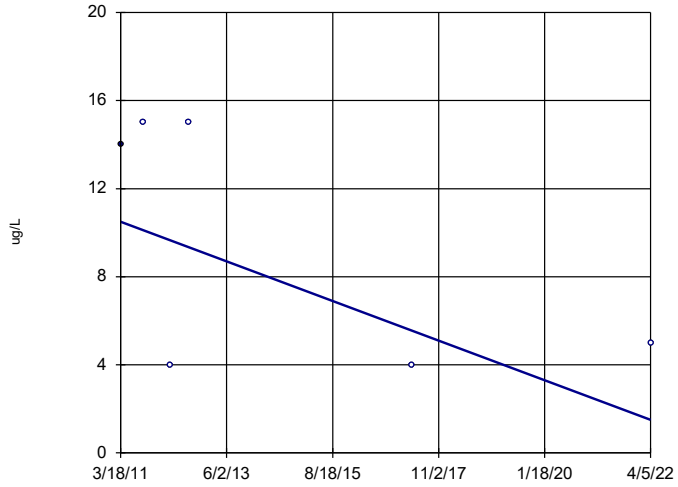
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Copper Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 6

Slope = -0.8139 units per year.

Mann-Kendall statistic = -3
critical = -14

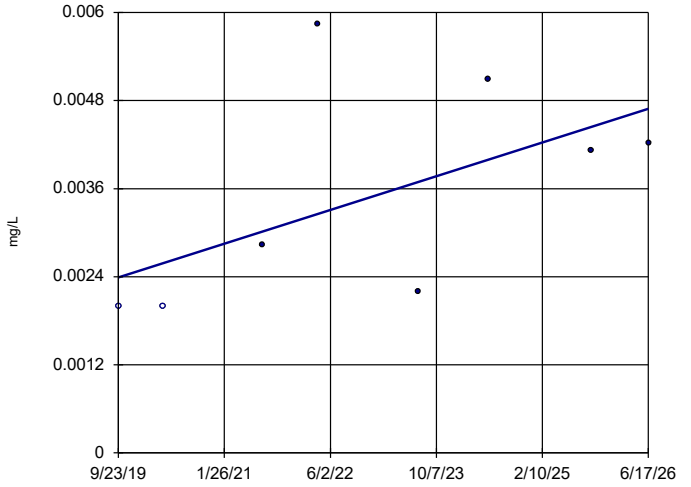
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Diethyl phthalate Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQ
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-3



n = 8

Slope = 0.0003409 units per year.

Mann-Kendall statistic = 13
critical = 21

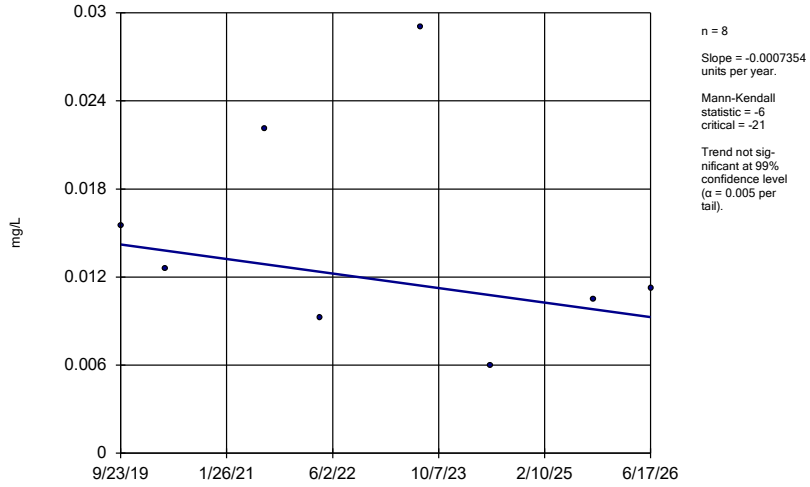
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Sen's Slope Estimator

MW-16

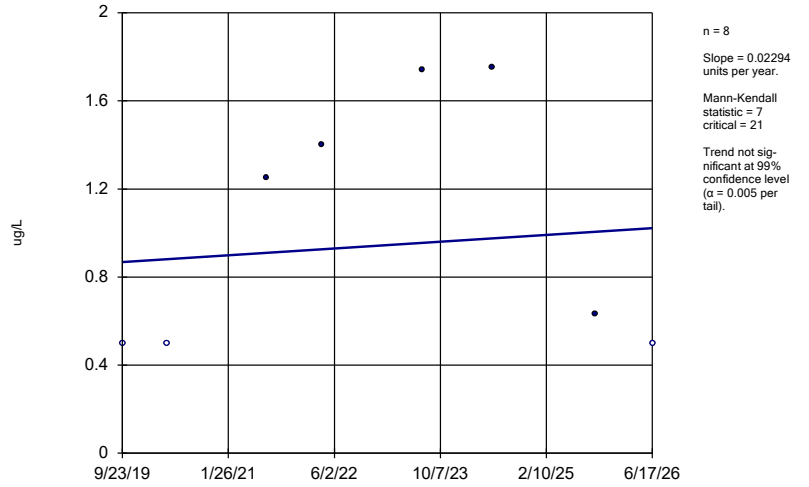


Constituent: Nickel Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12

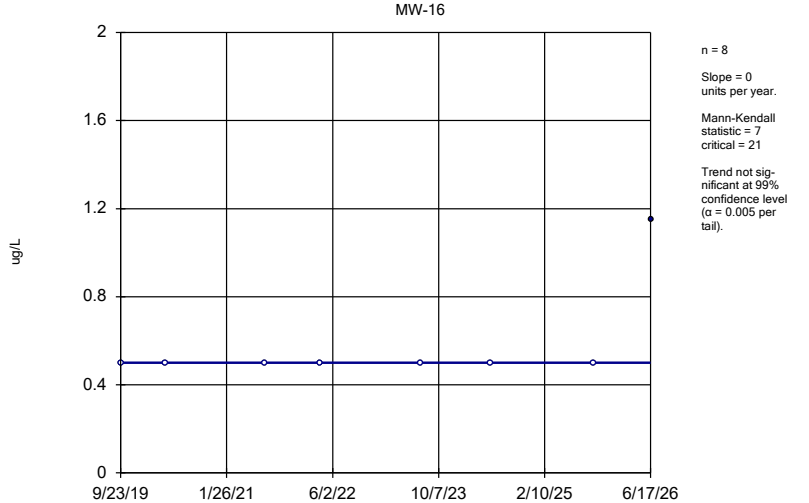


Constituent: Tetrachloroethene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AW
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

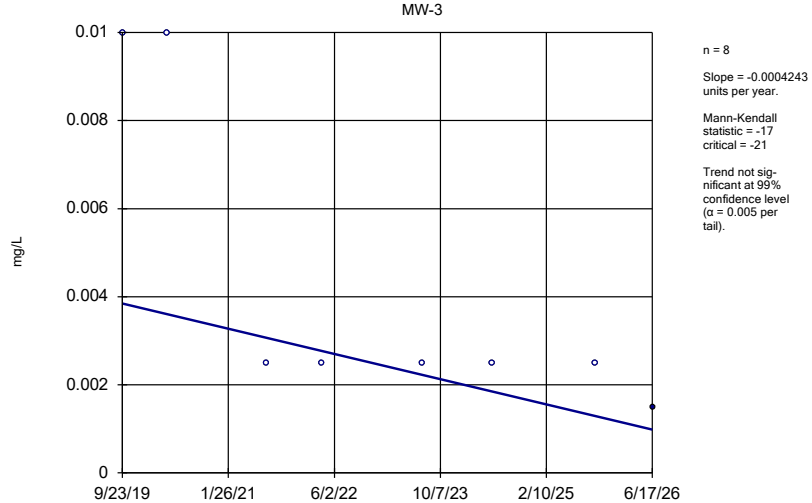


Constituent: Toluene Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

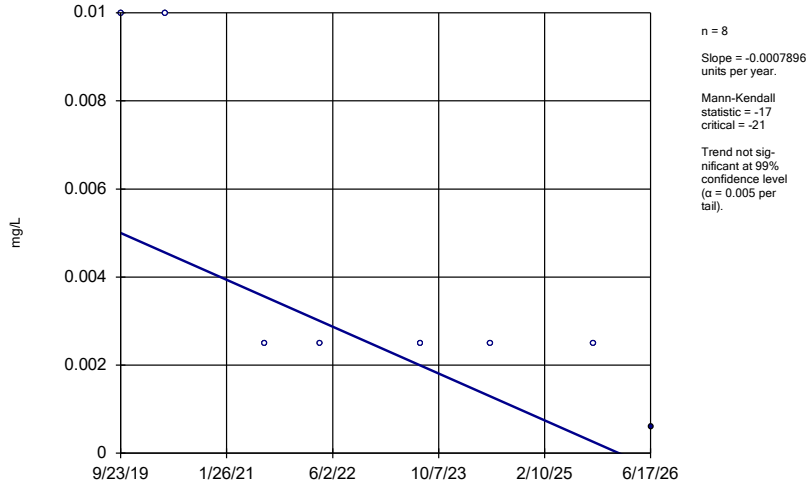


Constituent: Vanadium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 8

Slope = -0.0007896 units per year.

Mann-Kendall statistic = -17
critical = -21

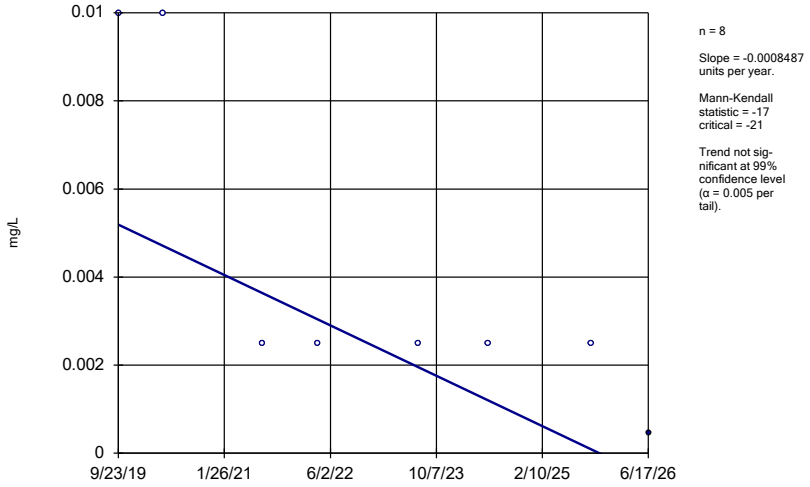
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Vanadium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.0008487 units per year.

Mann-Kendall statistic = -17
critical = -21

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

Constituent: Vanadium Analysis Run 7/23/2026 5:08 PM View: Mann-Kendall_GCSLF_2026 AWQR
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

Confidence Interval Summary Table and Graphs

Confidence Interval

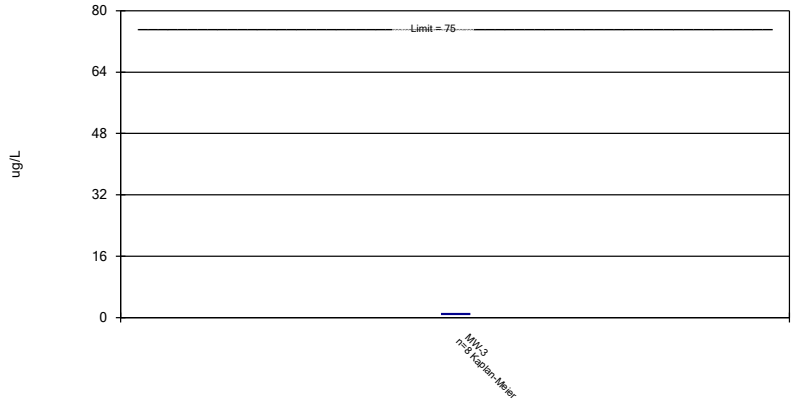
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR Printed 7/24/2026, 10:27 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,4-Dichlorobenzene (ug/L)	MW-3	1.027	0.8075	75	No	8	37.5	No	0.01	Param.
Arsenic (mg/L)	MW-16	0.02952	0.006796	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-3	0.7662	0.4452	2	No	8	0	x^2	0.01	Param.
Barium (mg/L)	MW-12	1.062	0.5129	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-16	0.4576	0.1556	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-16	1.292	0.2664	5	No	8	12.5	sqrt(x)	0.01	Param.
Bis[2-ethylhexyl]phthalate (ug/L)	MW-3	17	4	6	No	5	80	No	0.031	NP (NDs)
Bis[2-ethylhexyl]phthalate (ug/L)	MW-12	69	4	6	No	4	75	No	0.0625	NP (NDs)
Cadmium (mg/L)	MW-16	0.000502	0.000096	0.005	No	8	62.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-3	2.703	1.152	100	No	8	25	No	0.01	Param.
Chlorobenzene (ug/L)	MW-16	1.08	0.5	100	No	8	50	No	0.004	NP (normality)
Chloroethane (ug/L)	MW-16	2.013	1.265	2800	No	8	25	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-3	5.878	2.032	70	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-12	2.51	0.5	70	No	8	62.5	No	0.004	NP (NDs)
cis-1,2-Dichloroethene (ug/L)	MW-16	0.9595	0.2501	70	No	8	37.5	ln(x)	0.01	Param.
Cobalt (mg/L)	MW-3	0.0007175	0.0002811	0.0021	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-16	0.02674	0.0002816	0.0021	No	8	0	sqrt(x)	0.01	Param.
Copper (mg/L)	MW-16	0.003754	0.0004824	1.3	No	8	50	No	0.01	Param.
Diethyl phthalate (ug/L)	MW-3	15	4	5600	No	6	83.33	No	0.0155	NP (NDs)
Nickel (mg/L)	MW-3	0.005015	0.002317	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-16	0.02255	0.006483	0.1	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-12	1.75	0.5	5	No	8	37.5	No	0.004	NP (normality)
Toluene (ug/L)	MW-16	1.15	0.5	1000	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-3	0.01	0.00148	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-12	0.01	0.000602	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-16	0.01	0.00046	0.035	No	8	87.5	No	0.004	NP (NDs)

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

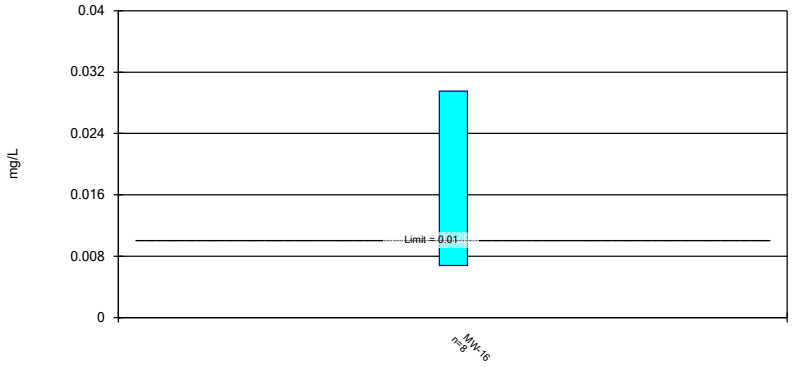


Constituent: 1,4-Dichlorobenzene Analysis Run 7/24/2026 10:17 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

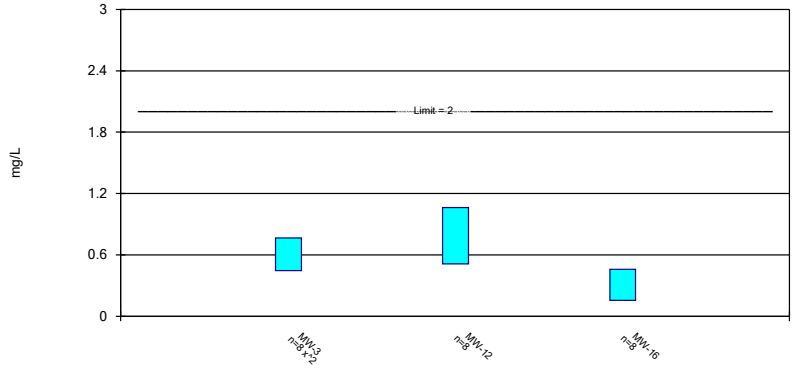


Constituent: Arsenic Analysis Run 7/24/2026 10:17 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

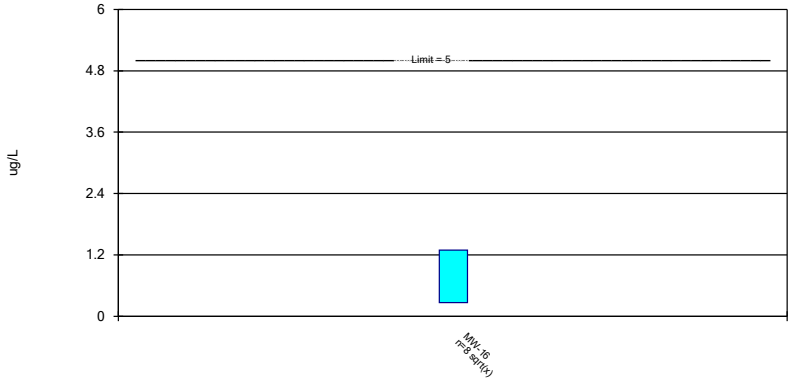


Constituent: Barium Analysis Run 7/24/2026 10:17 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

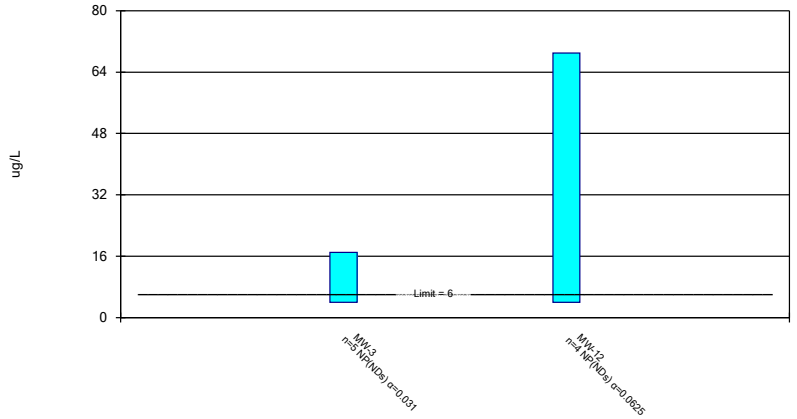


Constituent: Benzene Analysis Run 7/24/2026 10:17 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

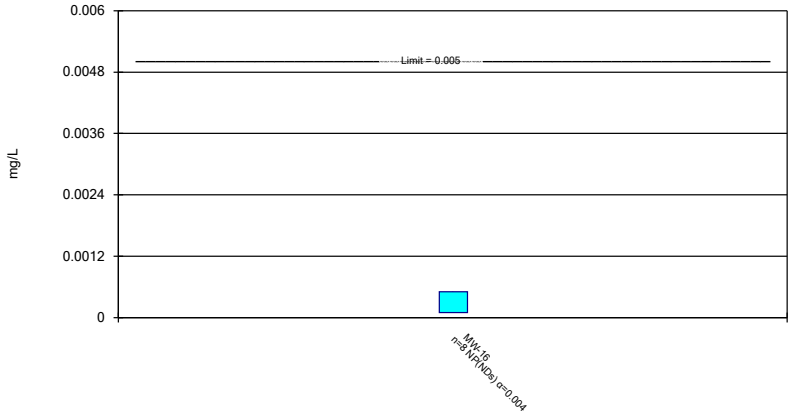


Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCS
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

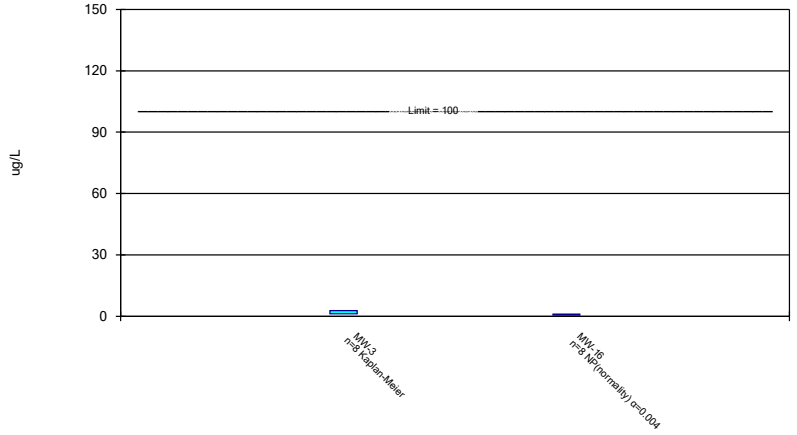


Constituent: Cadmium Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

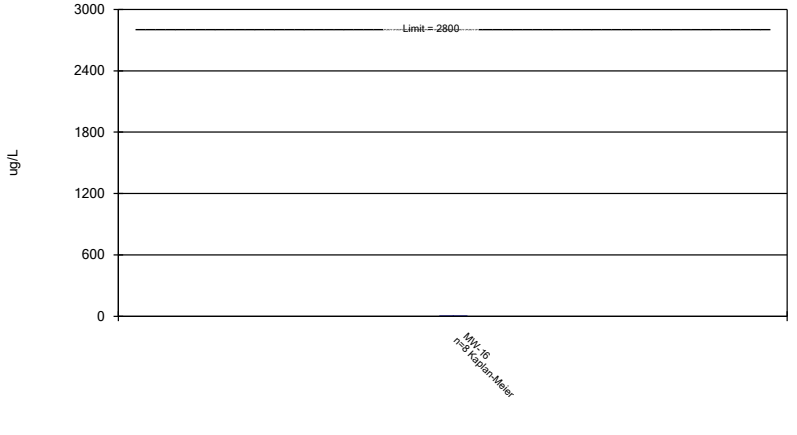


Constituent: Chlorobenzene Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

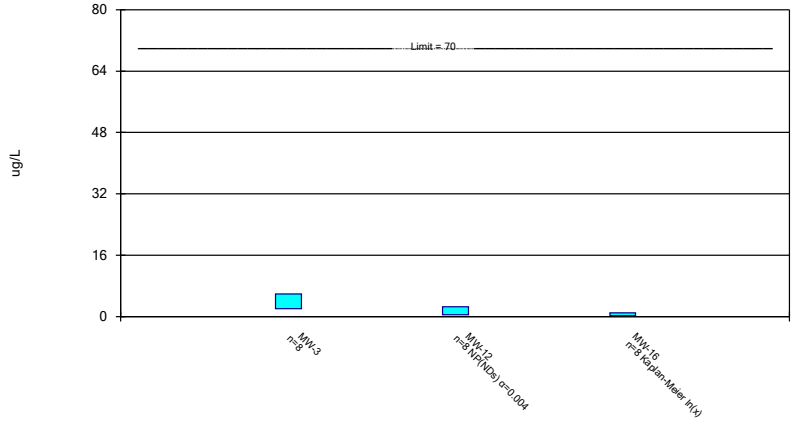


Constituent: Chloroethane Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

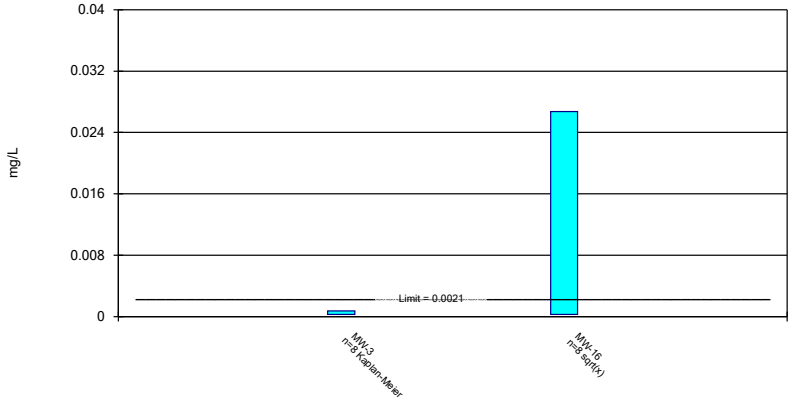


Constituent: cis-1,2-Dichloroethene Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

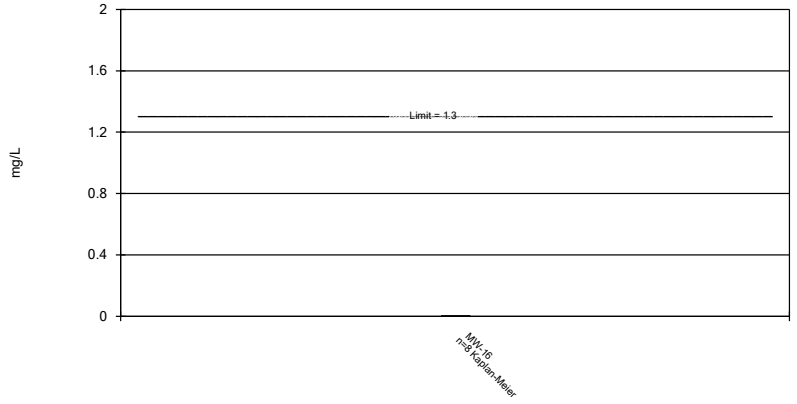


Constituent: Cobalt Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

Sanitas™ v.10.1.08 Software licensed to SCS Engineers. EPA

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

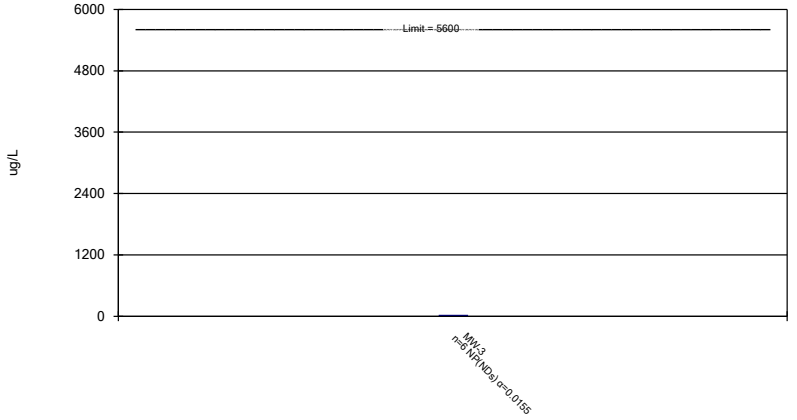


Constituent: Copper Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

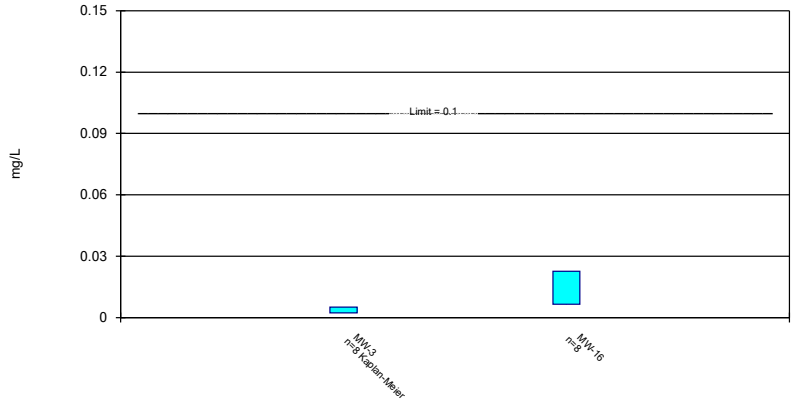


Constituent: Diethyl phthalate Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

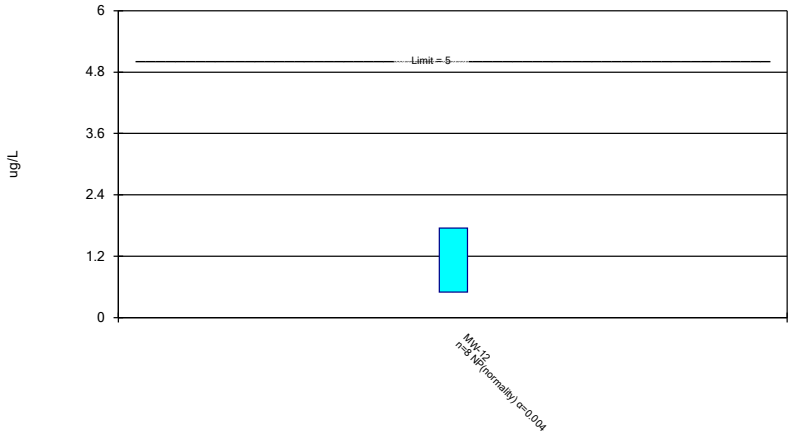


Constituent: Nickel Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

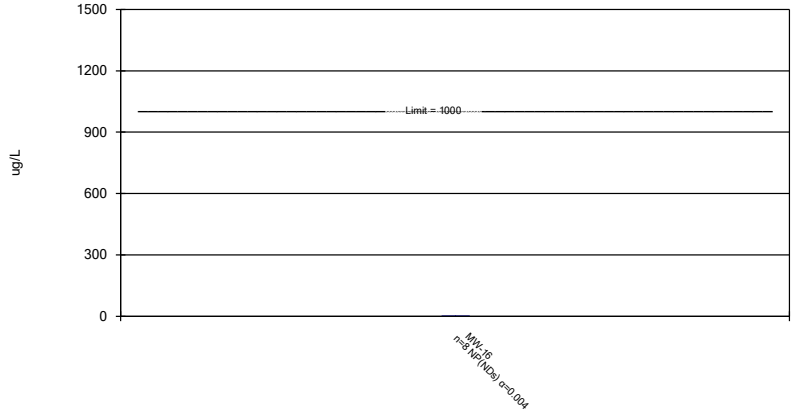


Constituent: Tetrachloroethene Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

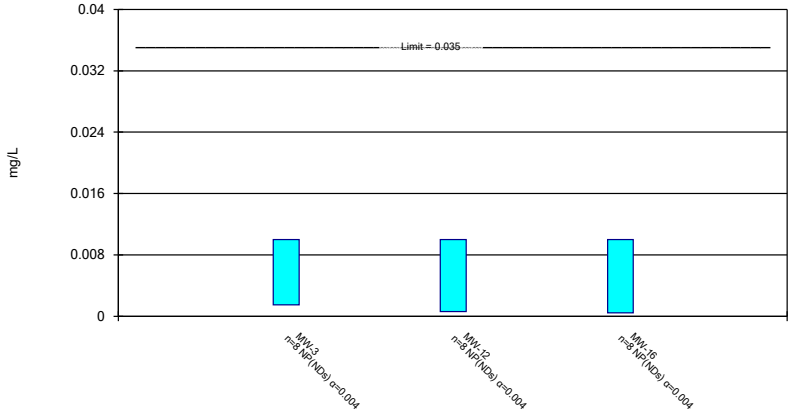


Constituent: Toluene Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

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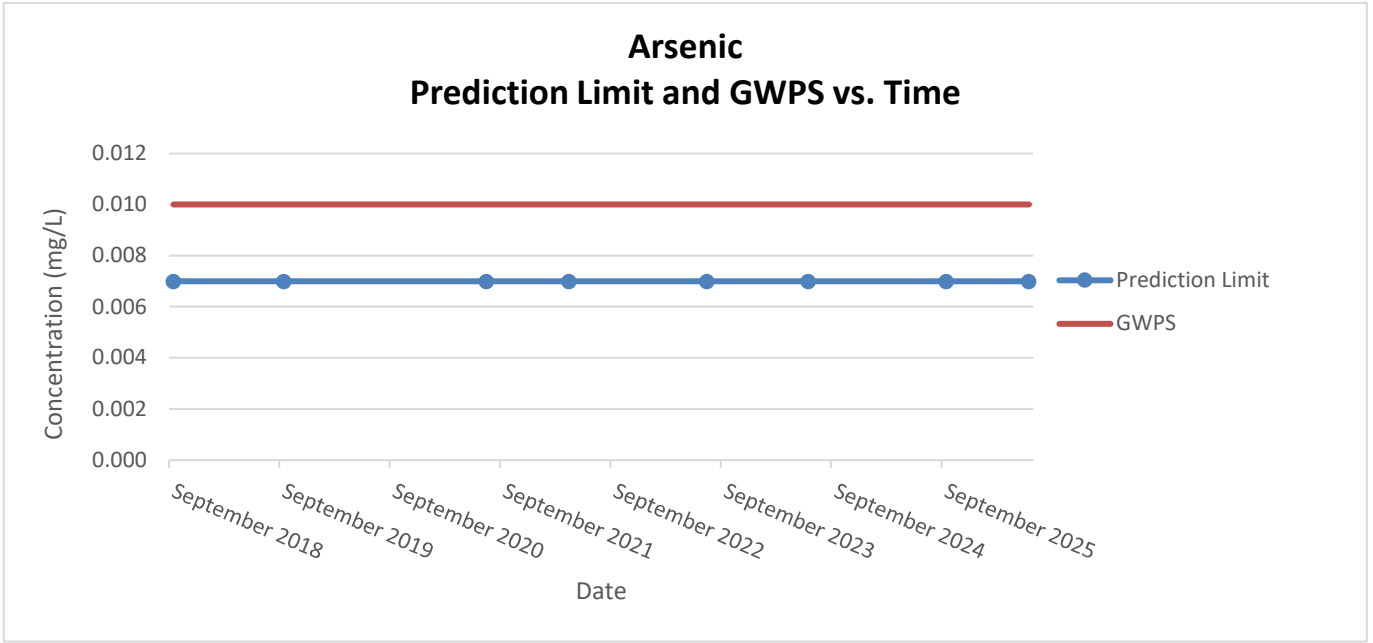
Non-Parametric Confidence Interval

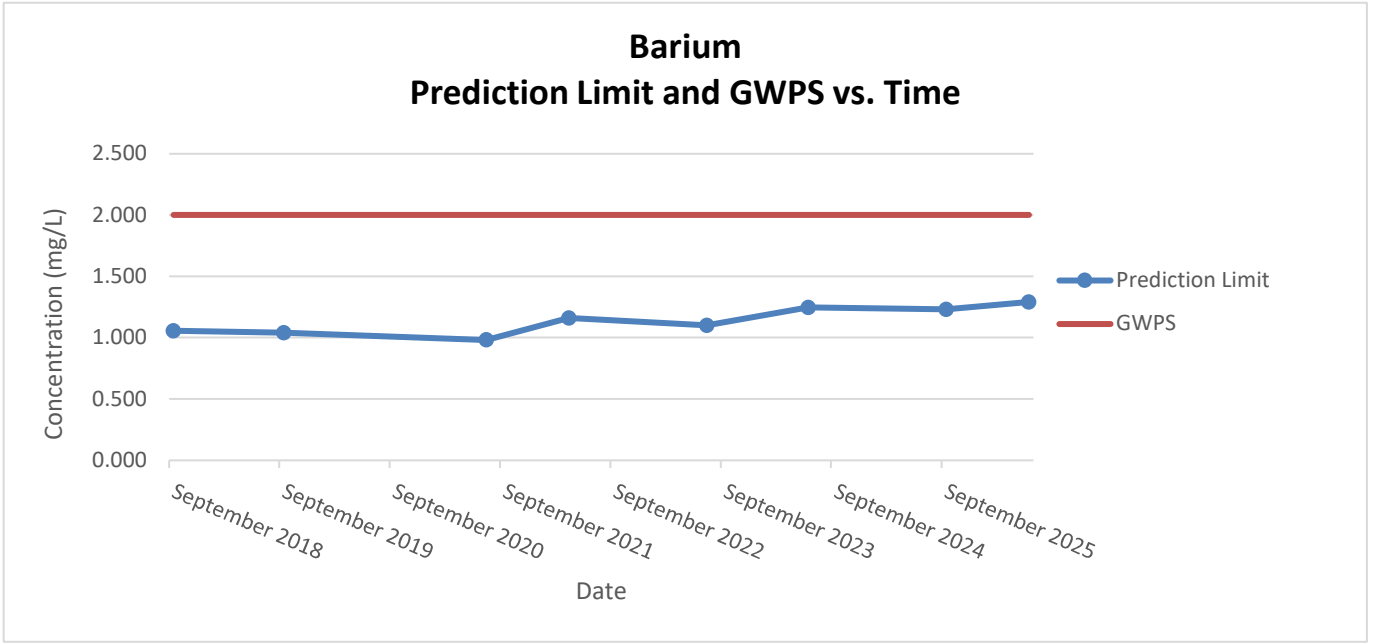
Compliance Limit is not exceeded.

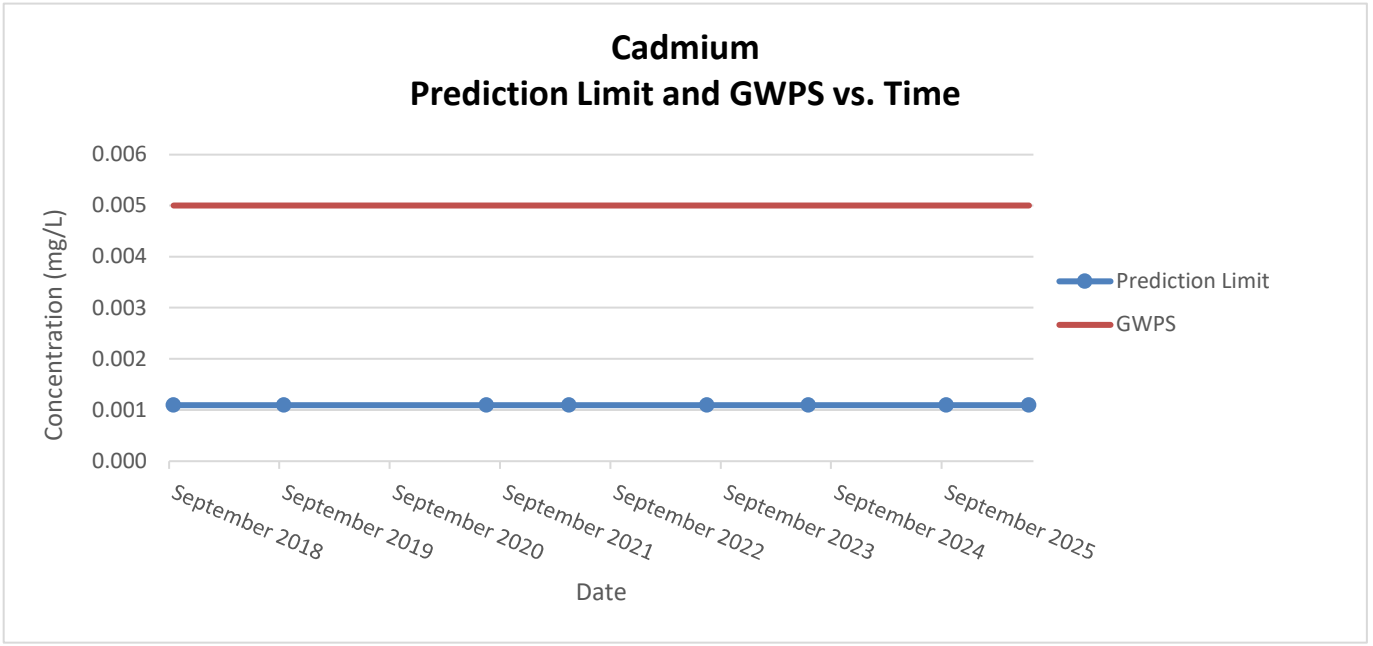


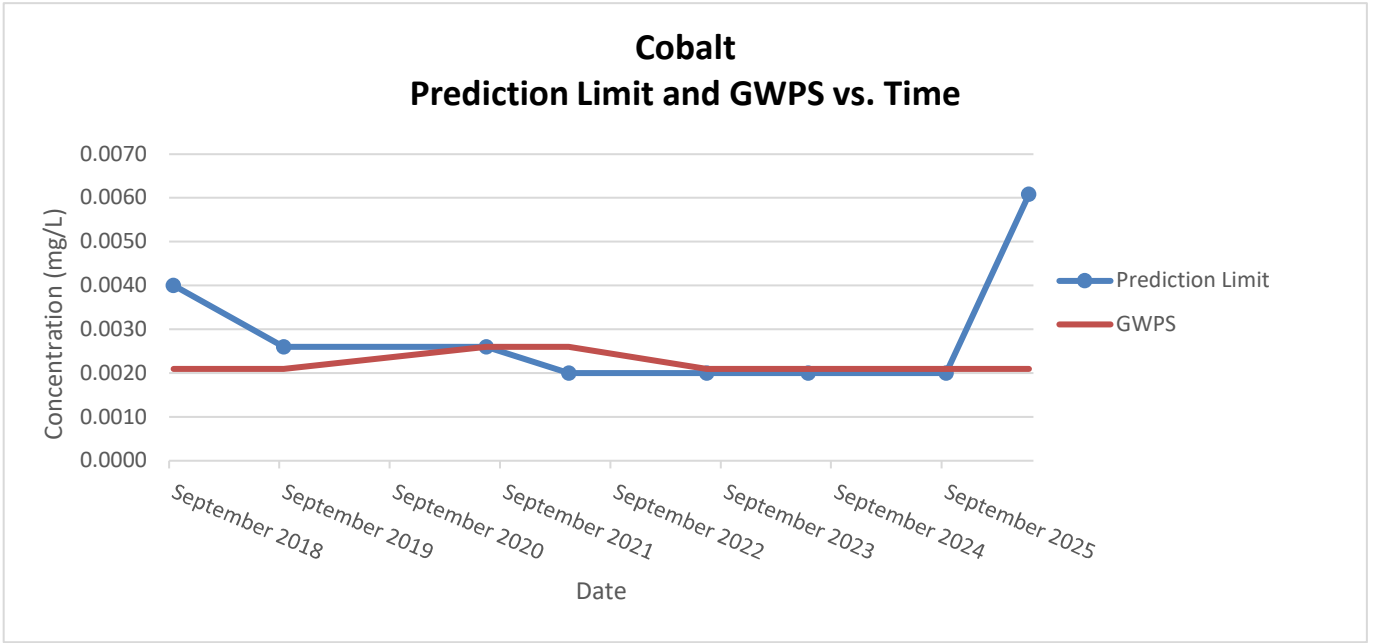
Constituent: Vanadium Analysis Run 7/24/2026 10:18 AM View: Confidence Interval_GCSLF
Guthrie County SLF Client: SCS Engineers Data: GCSLF_AM_2026_AWQR

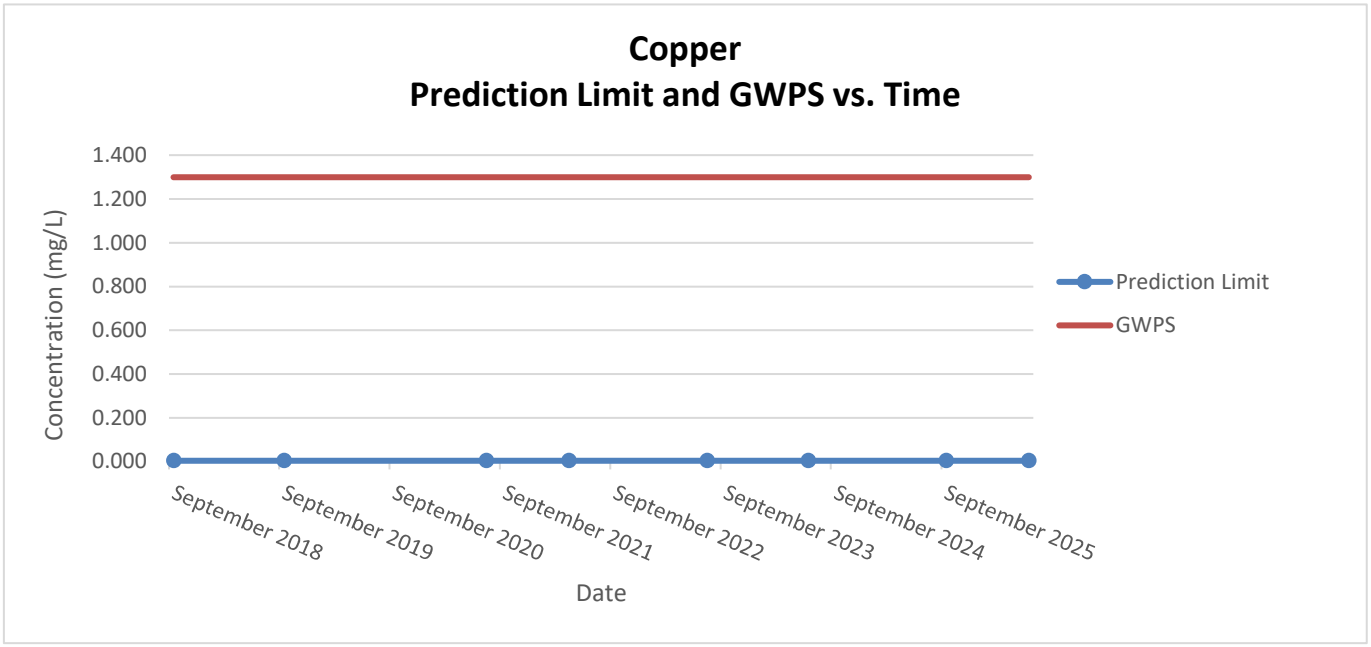
APPENDIX E | STANDARDS HISTORY GRAPHS

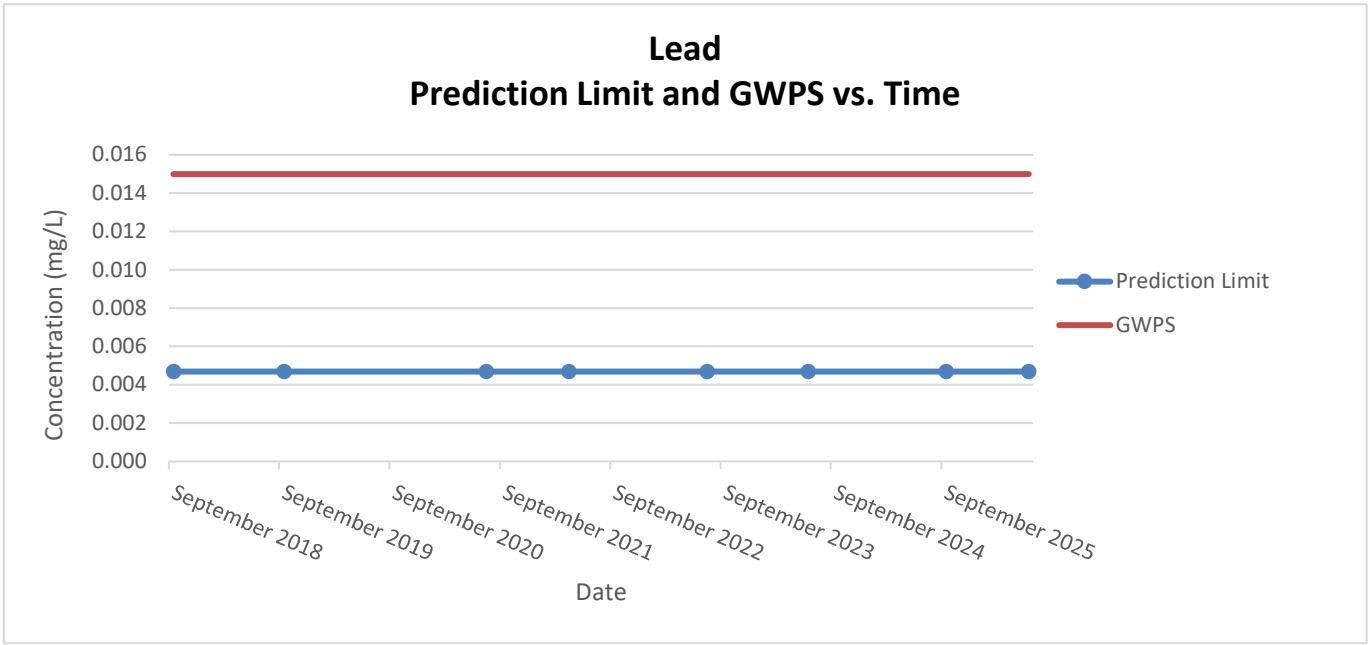

Arsenic
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS

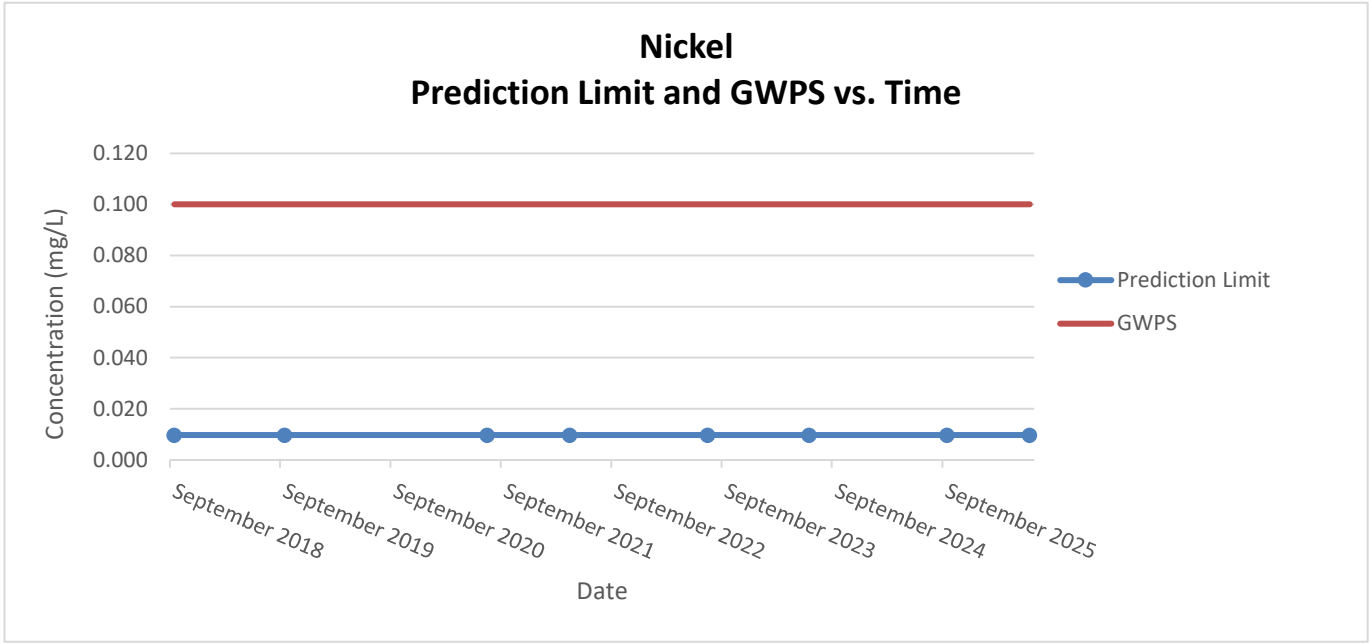

Barium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS

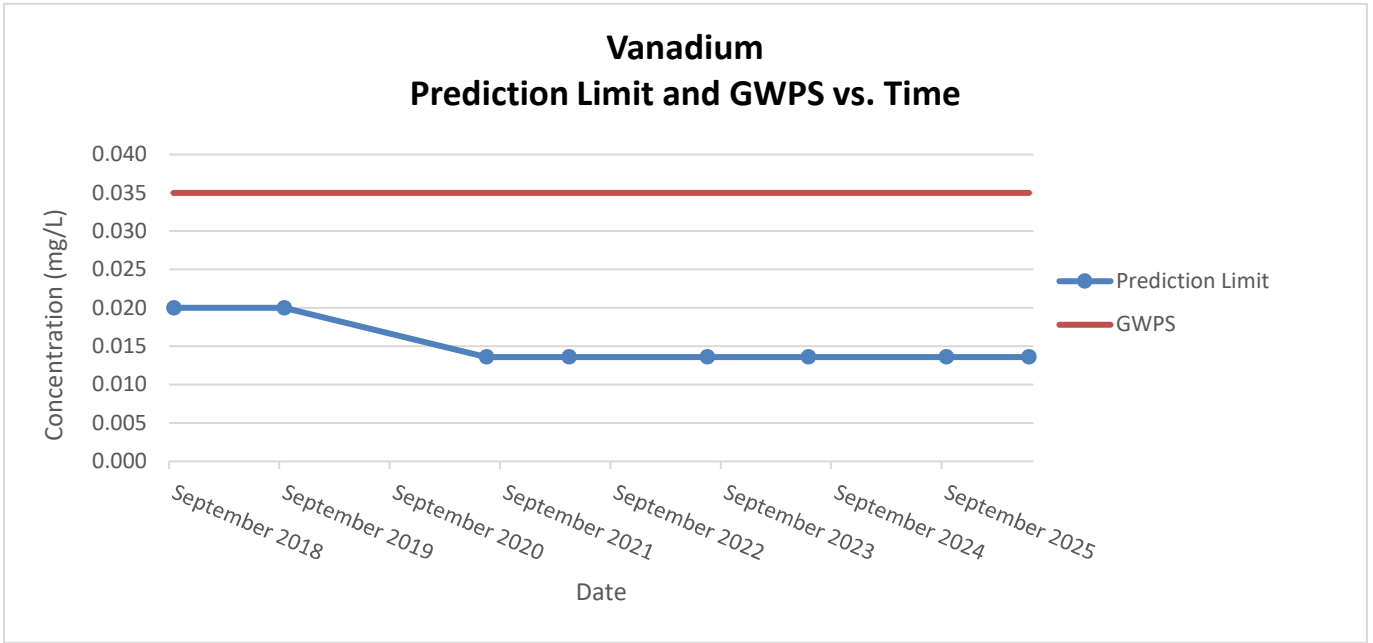

Cadmium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.006
0.005
0.004
0.003
0.002
0.001
0.000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS

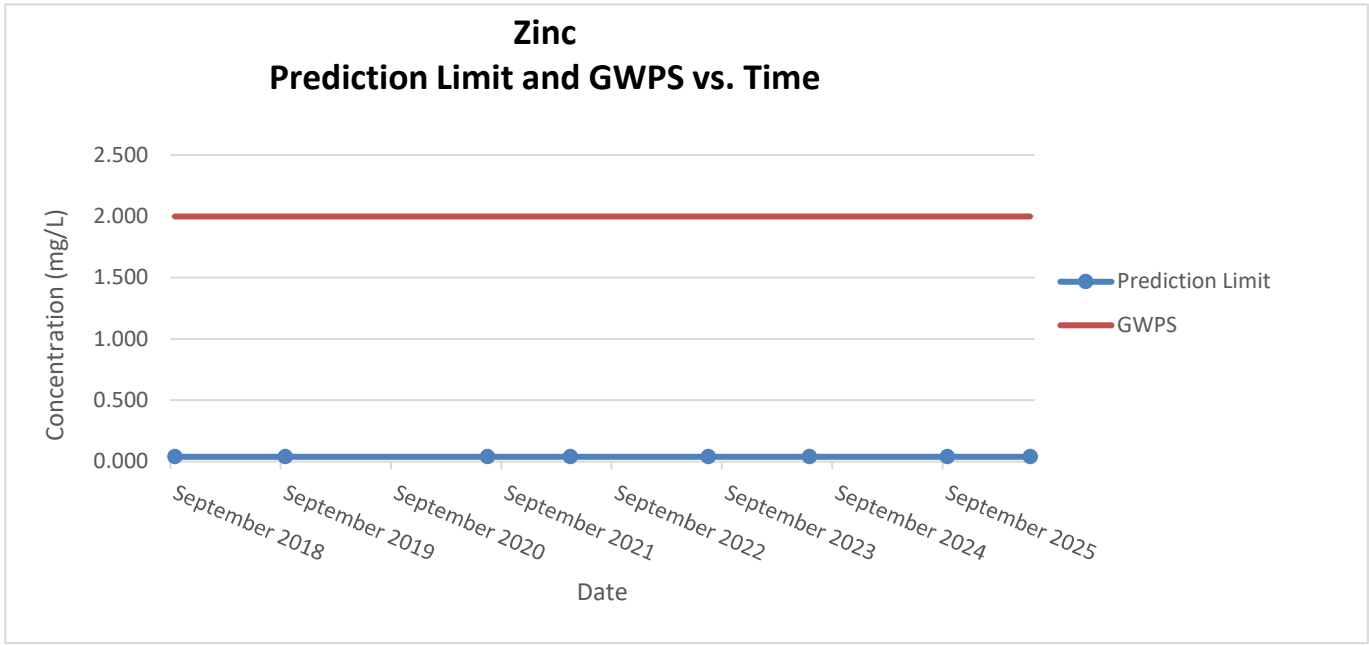

Cobalt
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.0070
0.0060
0.0050
0.0040
0.0030
0.0020
0.0010
0.0000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS


Copper
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS


Lead
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS


Nickel
Prediction Limit and GWPS vs. Time
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Concentration (mg/L)
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS


Vanadium
Prediction Limit and GWPS vs. Time
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Concentration (mg/L)
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS


Zinc
Prediction Limit and GWPS vs. Time
2.500
2.000
1.500
1.000
0.500
0.000
Concentration (mg/L)
September 2018
September 2019
September 2020
September 2021
September 2022
September 2023
September 2024
September 2025
Date
Prediction Limit
GWPS

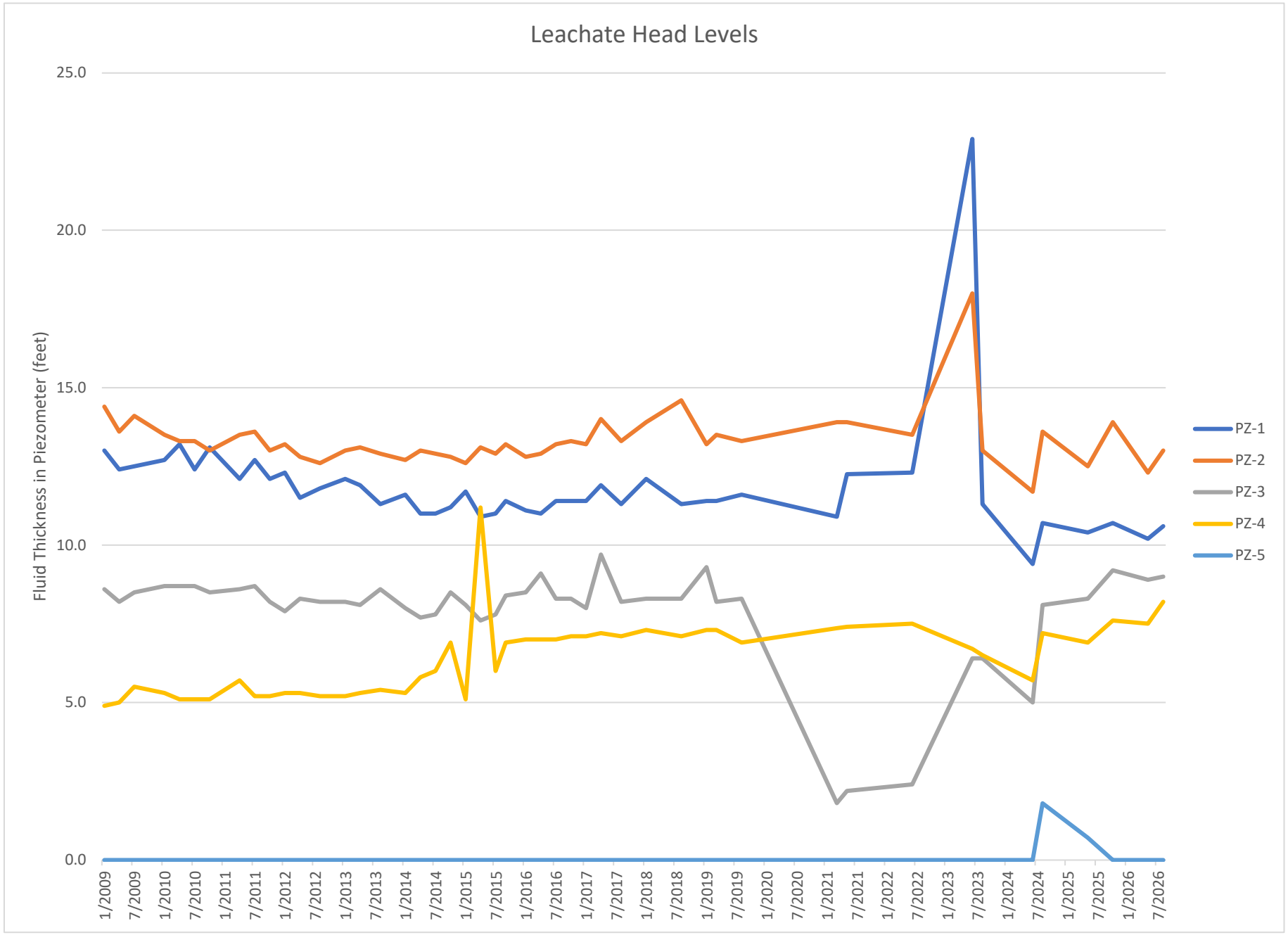
APPENDIX F | LEACHATE LEVELS

Historical Leachate Levels
Guthrie County Sanitary Landfill

Date	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5
1/2009	13.0	14.4	8.6	4.9	0.0
4/2009	12.4	13.6	8.2	5.0	0.0
7/2009	12.5	14.1	8.5	5.5	0.0
1/2010	12.7	13.5	8.7	5.3	0.0
4/2010	13.2	13.3	8.7	5.1	0.0
7/2010	12.4	13.3	8.7	5.1	0.0
10/2010	13.1	13.0	8.5	5.1	0.0
4/2011	12.1	13.5	8.6	5.7	0.0
7/2011	12.7	13.6	8.7	5.2	0.0
10/2011	12.1	13.0	8.2	5.2	0.0
1/2012	12.3	13.2	7.9	5.3	0.0
4/2012	11.5	12.8	8.3	5.3	0.0
8/2012	11.8	12.6	8.2	5.2	0.0
1/2013	12.1	13.0	8.2	5.2	0.0
4/2013	11.9	13.1	8.1	5.3	0.0
8/2013	11.3	12.9	8.6	5.4	0.0
1/2014	11.6	12.7	8.0	5.3	0.0
4/2014	11.0	13.0	7.7	5.8	0.0
7/2014	11.0	12.9	7.8	6.0	0.0
10/2014	11.2	12.8	8.5	6.9	0.0
1/2015	11.7	12.6	8.1	5.1	0.0
4/2015	10.9	13.1	7.6	11.2	0.0
7/2015	11.0	12.9	7.8	6.0	0.0
9/2015	11.4	13.2	8.4	6.9	0.0
1/2016	11.1	12.8	8.5	7.0	0.0
4/2016	11.0	12.9	9.1	7.0	0.0
7/2016	11.4	13.2	8.3	7.0	0.0
10/2016	11.4	13.3	8.3	7.1	0.0
1/2017	11.4	13.2	8.0	7.1	0.0
4/2017	11.9	14.0	9.7	7.2	0.0
8/2017	11.3	13.3	8.2	7.1	0.0
1/2018	12.1	13.9	8.3	7.3	0.0
8/2018	11.3	14.6	8.3	7.1	0.0
1/2019	11.4	13.2	9.3	7.3	0.0
3/2019	11.4	13.5	8.2	7.3	0.0
8/2019	11.6	13.3	8.3	6.9	0.0
3/2021	10.9	13.9	1.8	7.4	0.0
5/2021	12.3	13.9	2.2	7.4	0.0
6/2022	12.3	13.5	2.4	7.5	0.0
6/2023	22.9	18.0	6.4	6.7	0.0
8/2023	11.3	13.0	6.4	6.5	0.0
6/2024	9.4	11.7	5.0	5.7	0.0

Historical Leachate Levels
Guthrie County Sanitary Landfill

Date	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5
8/2024	10.7	13.6	8.1	7.2	1.8
5/2025	10.4	12.5	8.3	6.9	0.7
10/2025	10.7	13.9	9.2	7.6	0.0
5/2026	10.2	12.3	8.9	7.5	0.0
8/2026	10.6	13.0	9.0	8.2	0.0


Leachate Head Levels
Fluid Thickness in Piezometer (feet)
25.0
20.0
15.0
10.0
5.0
0.0
1/2009
7/2009
1/2010
7/2010
1/2011
7/2011
1/2012
7/2012
1/2013
7/2013
1/2014
7/2014
1/2015
7/2015
1/2016
7/2016
1/2017
7/2017
1/2018
7/2018
1/2019
7/2019
1/2020
7/2020
1/2021
7/2021
1/2022
7/2022
1/2023
7/2023
1/2024
7/2024
1/2025
7/2025
1/2026
7/2026
PZ-1
PZ-2
PZ-3
PZ-4
PZ-5