

West Des Moines, IA

PROJECT: Muscatine Co, FY26 Env Comp, IA 27223255.26 DATE: 2/27/2026

SUBJECT: Muscatine County Sanitary Landfill - 70-SDP-02-75P - 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report TRANSMITTAL ID: 00001

PURPOSE: For your approval VIA: Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
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TO

NAME	COMPANY	EMAIL	PHONE
Mike Smith 502 East 9th Street Des Moines IA 50319-0034 United States	Iowa, State of	mike.smith@dnr.iowa.gov	515-725-8200

REMARKS: Good morning Mike-

SCS Engineers, on behalf of the Muscatine County Solid Waste Management Agency, is submitting the 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report for the Muscatine County Sanitary Landfill. If you have any questions or comments regarding these reports, please contact me at the number below. Thank you.

Nathan Ohrt
Senior Project Professional
SCS Engineers
West Des Moines, Iowa
319-331-9613
nohrt@scsengineers.com

Transmittal

DATE: 2/27/2026
TRANSMITTAL ID: 00001

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	2/27/2026	2025-02-27_Muscatine County Sanitary Landfill - 70-SDP-02-75P - 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report.pdf	

COPIES:

David Popp	(Muscatine County Solid Waste Mgmt. Agency)
Nathan Ohrt	(SCS Engineers)
Tim Buelow	(SCS Engineers)
Becky Jolly	

February 27, 2026
File No. 27223255.26

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

Subject: 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Dear Mike:

SCS Engineers, on behalf of the Muscatine County Solid Waste Management Agency, has completed the water quality monitoring and assessment for the Muscatine County Sanitary Landfill (Landfill) for the year 2025. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan for the Landfill. Please find enclosed a copy of the 2025 Annual Water Quality Report.

Additionally, an evaluation of the leachate control system and gas monitoring results for the Landfill are included in accordance with IAC 567-113.7(5)"b"(14) and 113.9(2)"d," respectively. The 2025 Leachate Control System Performance Evaluation Report and 2025 Landfill Gas Annual Report for the Landfill are included as appendices to the Annual Water Quality Report.

If you have any questions regarding these reports, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,



Nathan Ohrt
Senior Project Professional
SCS Engineers



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

NPO/TCB

Copies: Mr. Dave Popp, Muscatine County Sanitary Landfill



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

Muscatine County Sanitary Landfill
Muscatine, Iowa

Solid Waste Permit No. 70-SDP-02-75P

SCS ENGINEERS

27223255.26 | February 2026

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Certification

Prepared by: Nathan Ohrt

Date: 2/27/2026

Typed: Nathan Ohrt

Reviewed by: Timothy C. Buelow

Date: 2/27/2026

Typed: Timothy C. Buelow, P.E.

Certification page (PE or ground water scientist signature) **113.10(1)"d"**

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.

1.0 EXECUTIVE SUMMARY

1.1 PERIOD OF REPORT COVERAGE

The period of report coverage is from January-December 2025 and includes the sampling events summarized in **Table 2**.

1.2 REPORT PRIORITY

The following summarizes report priorities associated with groundwater compliance at the Muscatine County Sanitary Landfill (Landfill):

- Department review urgency: It is recommended to discontinue semi-annual monitoring of Endosulfan I in monitoring well MW-39 as the parameter has not been detected in the monitoring well in the most recent eight samples.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

1.3 SITE STATUS AND APPLICABLE RULES

- Landfill Status: Active
- Types of waste accepted: MSW and C&D
- Applicable IAC rules: 2009 567-113.10

1.4 COMMENTS

The following summarizes points of special emphasis:

Including the assessment monitoring wells and the attenuation zone point of compliance (AZPOC) monitoring wells MW-26, MW-38, and MW-39, of the 15 monitoring wells sampled, three wells had detections of three metals, three wells had detections for two metals, and nine wells had detections of barium only. The only GWPS exceedance in the assessment monitoring water table or bedrock monitoring wells was barium in background monitoring well MW-49R.

No VOCs were detected in the assessment monitoring water table or bedrock monitoring wells. Apart from the corrective action monitoring wells, the remainder of the HMSP monitoring network appears generally not impacted.

Well maintenance items noted during field sampling activities, as included in the field sampling forms in **Attachment A**, will be corrected by April 30, 2026.

2.0 ACRONYMS/ABBREVIATIONS

ACM = Assessment of Corrective Measures
CAMP = Corrective Action Groundwater Monitoring Program
C&D = Construction and Demolition Waste
CCV = Continuing Calibration Verification
CL = Control Limit - Mean plus Two Standard Deviations
COC = Chain of Custody
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
MSW = Municipal Solid Waste
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PL = Prediction Limit
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

3.0 SITE BACKGROUND

3.1 SITE LOCATION

The Landfill property is depicted in **Figure 1**, Approved Monitoring Network. The Landfill is located in SE ¼, Section 33, and the SW ¼, Section 34, T78N, R1E, and part of Section 3, and the NE 1/4, Section 4, T77N, R1E, in Muscatine County, Iowa. The Landfill property encompasses approximately 188 acres and is situated south of Highway 61 near the intersections of Ward Avenue and County Road Y30.

3.2 FACILITY

The Landfill originally consisted of seven individual ravines radiating outward from a topographic high ridge. Six ravines were filled with waste and are designated as Ravines 2, 3, and 7 on the west and Ravines 5, 6, and 4 on the east. Initial development of the Landfill occurred in 1974 and 1975 with some waste placement in all six ravines prior to 1982. The lower portions of all six ravines were closed prior to October 1989 with a 2-foot soil cap. Various vertical expansions occurred between 1989 and August 2006. Along the topographic high ridge, a six-phase Subtitle D-compliant expansion was designed. Phases 1 through 5 have been constructed. Phases 3, 4, and 5 are actively receiving waste from the City of Muscatine Recycling Center & Solid Waste Transfer Station.

3.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

A hydrogeological review of the stratigraphy beneath and adjacent to the Landfill was prepared by Barker Lemar Engineering Consultants. The Hydrogeological Review dated March 2, 2015 (Doc #82603) provided a current summary of hydrogeological assessment activities at the Landfill. References to prior assessments were included therein.

A brief summary of the geology beneath the Landfill was provided in the Hydrogeologic Investigation of Muscatine County Sanitary Landfill Phase I Report, Indeco, Inc., July 1991 (Doc #14020). A citation from the report is included below.

The basic geology of the landfill site consists of loess capped glacial tills resting on shale or limestone bedrock. The loess materials represent Wisconsin Age wind deposited silts and clays lying on the tops of the upland interfluvies. The loess ranges between 8 feet and 35 feet thick, with an average of approximately 16 feet. Along the ravine areas, approximately 2 feet to 16 feet of alluvial soils are underlain by glacial till materials. The Pre-Illinoian Age glacial till materials consist mainly of silt and clays with various amounts of sands and gravel ranging in thickness between 7 feet and 90 feet, averaging approximately 35 feet. The Pennsylvanian Age shale bedrock is thin and of limited lateral extent due to erosional processes before and during the deposition of the glacial till materials. The shales rest unconformably on Devonian Age limestones at a depth of 20 to 100 feet, averaging approximately 50 feet. Bedrock elevations range between 689 and 661 msl [feet above mean sea level].

4.0 FIGURES DISCUSSION

The following figures are attached.

4.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrologic monitoring system plan (HMSP) monitoring network are depicted in **Figure 1**. **Figure 1** indicates the respective monitoring programs of the HMSP monitoring points during this reporting period.

4.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on groundwater levels measured during the July 2025 sampling event is included in **Figure 2**.

Groundwater flows to the south, southwest, and southeast beneath the former ravines in the southern portion of the fill area. The high point is on the north side of the Landfill property measured at background monitoring well MW-29.

5.0 STANDARDS HISTORY GRAPHS

Standards history graphs for the Appendix I metals for both the water table and bedrock monitoring networks are included in Appendix G.

The prediction limits were below the statewide standards with the exceptions of cobalt in the water table background and barium and cobalt in the bedrock background. In those instances, the prediction limits were used as the GWPS. The cobalt GWPS was established as 0.00797 mg/L for the water table monitoring network. For the bedrock monitoring wells, the barium GWPS was established as 2.716 mg/L and the cobalt GWPS was established as 0.01036 mg/L.

6.0 QA/QC SUMMARY

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

During the sampling event on March 24-27, 2025, the case narrative of that laboratory report stated that the samples were received at temperatures above regulatory requirements. The United States Environmental Protection Agency publication, SW-846 Compendium, Chapters Three (inorganic analytes) and Four (organic analytes), provides appropriate preservation methods for the analytes analyzed during this sampling event. In addition, multiple samples were analyzed outside analytical holding time due to laboratory control sample failure.

According to Table 3-2 of Chapter Three of the SW-846 Compendium, temperature is not a preservation requirement for total metals analysis except for mercury and hexavalent chromium. The following samples were analyzed for total metals and total suspended solids only, and not for mercury and hexavalent chromium, during this sampling event: MW-49BG, MW-50BG, MW-20, MW-21, MW-26, and MW-D1. Mercury has not been detected at a quantifiable concentration at the Landfill; hexavalent chromium has not been analyzed.

Analytical results for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) for the years 2020 through 2025 were reviewed. Five monitoring wells had no VOC detections in that time period, while ten monitoring wells had detections of VOCs, including three with detections of SVOCs. Four of the wells with detections were assessment or AZPOC monitoring wells; of these, three had detections of one VOC, and one (MW-9) had detections of three VOCs. The remaining six wells with organic constituent detections were the source wells: MW-4, MW-12R, MW-13, MW-23, MW-38, and MW-39. The SVOC detections also occurred in the source wells. As the source wells are not statistically evaluated beyond annual trend analysis, it is unlikely that a single suspect data point based on high temperatures at sample receipt would appreciably affect the trend results.

Despite the high temperatures and holding time exceedances during the March 24-27, 2025 sampling event, the fact that the metals data has no temperature preservation requirements and VOC detections are infrequent outside of the source wells, it is not likely that the data from the sampling event would change the statistical conclusions. Going forward, samples that are collected over several days will be shipped/transferred to the laboratory every 2-3 days so that the likelihood of samples warming above the required temperature would be reduced.

The QA review indicated the remainder of the data collected during this reporting period were acceptable.

7.0 DATA EVALUATION

Assessment and corrective action monitoring statistical evaluations in accordance with the requirements of IAC 567-113.10(6) were conducted for the groundwater analytical data collected during the 2025 reporting period. The statistical evaluations for samples collected during this reporting period are located in **Appendix D**, Statistical Method and Output, of this report.

Groundwater monitoring for the Landfill consists of nineteen monitoring points, with background monitoring wells MW-49BG and MW-50BG located south of the Landfill and background monitoring well MW-29 located north of the Landfill. Compliance monitoring points are located along the downgradient east, west, and south boundaries.

Including the assessment monitoring wells and the AZPOC monitoring wells MW-26, MW-38, and MW-39, of the 15 monitoring wells sampled, three wells had detections of three metals, three wells had detections for two metals, and nine wells had detections of barium only. The only GWPS exceedance in the assessment monitoring water table or bedrock monitoring wells was barium in background monitoring well MW-49R.

No VOCs were detected in the assessment monitoring water table or bedrock monitoring wells. Apart from the source characterization monitoring wells, the remainder of the HMSP monitoring network appears generally not impacted. Numerous VOCs continue to be detected in source characterization monitoring wells MW-12R, MW-23, and MW-38 as discussed below.

7.1 CAMP EVALUATION

7.1.1 Source Characterization Monitoring

Monitoring wells MW-4, MW-12R, MW-13, MW-23, MW-38, and MW-39 were designated as source characterization monitoring wells. Monitoring wells MW-26, MW-36, and MW-37 are AZPOC monitoring wells. Monitoring well MW-26 is in the assessment monitoring program in addition to being utilized as an AZPOC monitoring well.

The source characterization monitoring wells and AZPOC monitoring wells were analyzed for Appendix I and TSS during this reporting period. Additionally, Appendix II parameter 2,4,5-TP [Silvex] was analyzed for monitoring well MW-12R and Endosulfan I was analyzed for monitoring wells MW-38 and MW-39 during the March and July 2025 sampling events. 2,4,5-TP [Silvex] was detected in monitoring well MW-12R during the March event but not the July event; Endosulfan 1 was not detected in monitoring wells MW-38 and MW-39 during each of the 2025 sampling events. Analytical results are included in **Appendix C**.

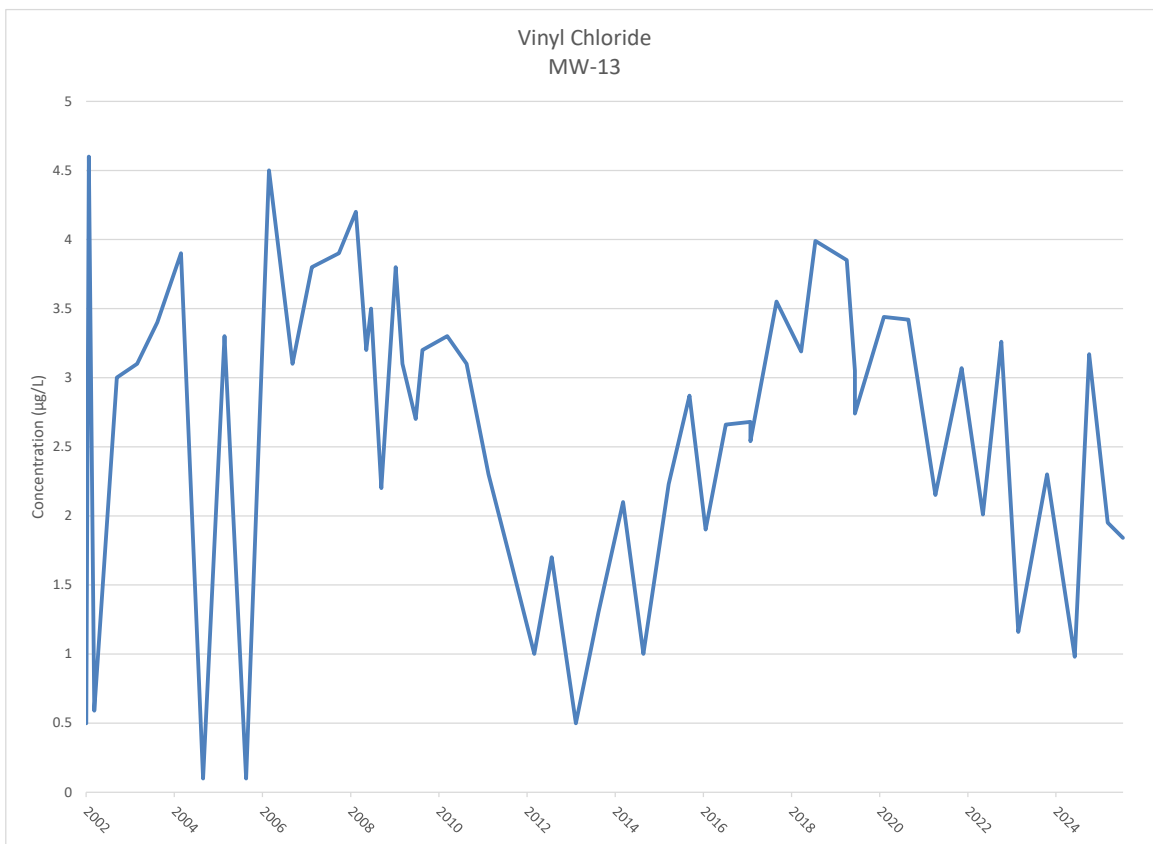
Trending of the Appendix I parameters for the source characterization monitoring wells and AZPOC monitoring wells MW-26, MW-36, and MW-37 was evaluated using Mann-Kendall evaluation. The evaluation indicated barium in monitoring well MW-4 was decreasing at a statistically significant rate at 99% confidence ($\alpha = 0.01$).

As shown in **Table 11**, 22 trends were increasing (positive Mann-Kendall statistic) and 44 were stable or decreasing (zero or negative Mann-Kendall statistic), indicating over 66% of the constituent-monitoring well trends were stable or decreasing.

A summary table and graphs of the Mann-Kendall trending evaluation are included in **Appendix D**. A summary of current analytical results for the source wells and AZPOC wells is included in **Appendix C**.

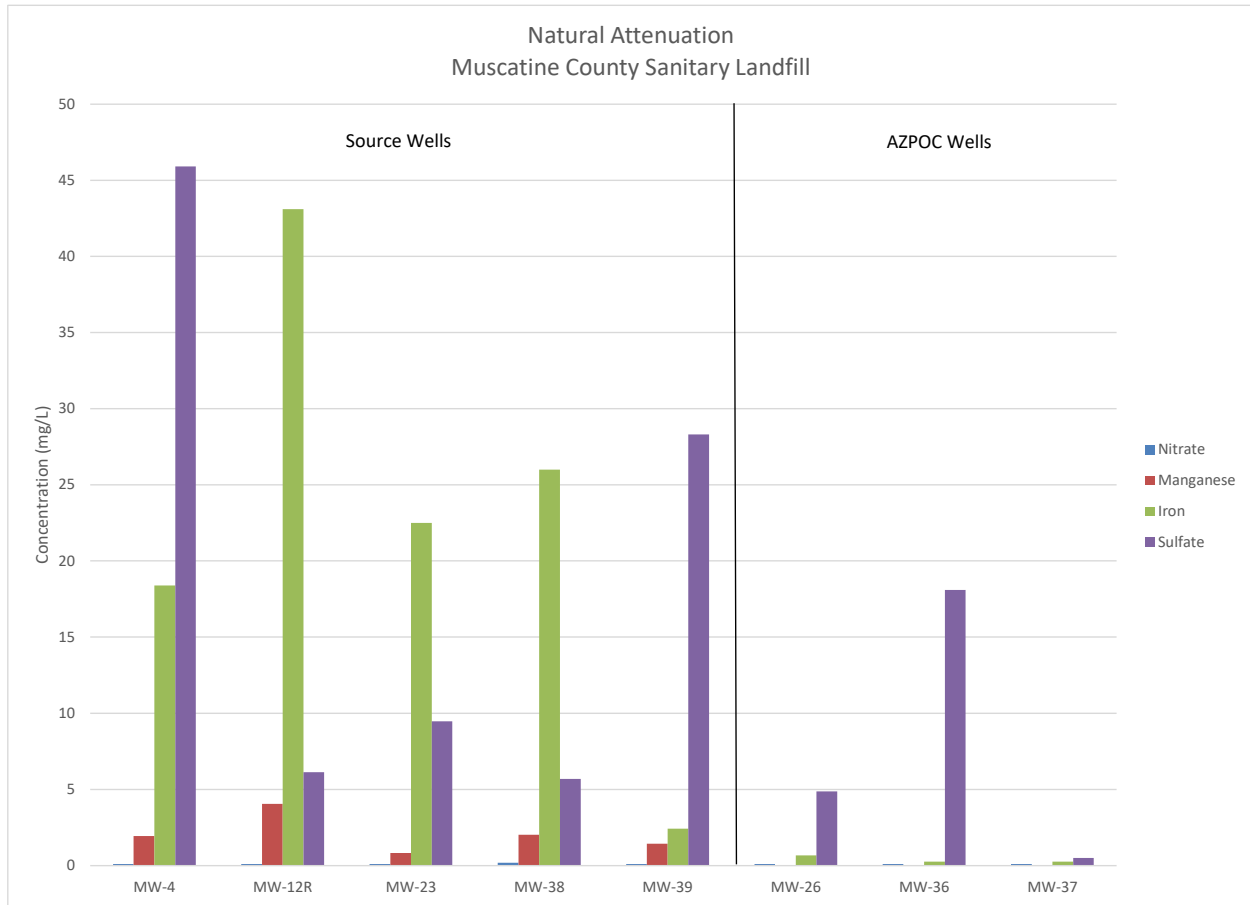
Sampling for natural attenuation parameters began during this reporting period for the source characterization and AZPOC monitoring wells, excluding MW-13. The groundwater impact near monitoring well MW-13 resulted from historical overtopping of a leachate storage tank rather than a

release from the Landfill. Primary evidence of natural attenuation, as indicated by declining vinyl chloride concentrations, will be used to evaluate monitoring well MW-13 rather than secondary evidence from an electron acceptor evaluation. The graph below shows the vinyl chloride concentrations in monitoring well MW-13 since 2002.



The vinyl chloride concentration in monitoring well MW-13 appears to be generally decreasing from historically higher concentrations. Three of the last four concentrations were below the GWPS of 2 µg/L, indicating natural attenuation is likely occurring near monitoring well MW-13.

Nitrate, total iron, total manganese, and sulfate concentrations were utilized to evaluate secondary evidence of natural attenuation. These constituents include four electron acceptors that would be utilized. The order of usage in terms of energy provided would be nitrate, manganese, iron, then sulfate. Their use as electron acceptors would result in increased concentrations of total manganese and total iron, as their reduced forms are more soluble, and decreased concentrations of nitrate and sulfate. Data for these four electron acceptors were graphed to review relative concentrations in monitoring wells in the source monitoring wells and AZPOC monitoring wells.



Nitrate would be the first electron acceptor used in this group of parameters, and it was not detected in the monitoring wells, except for a J flag (estimated) concentration in MW-38. The absence of nitrate in the monitoring wells, including the AZPOC monitoring wells, indicates that significant nitrate is likely not present in the subsurface, even under likely not impacted conditions.

Manganese and iron are somewhat elevated in each of the source wells, indicating natural attenuation is likely occurring. The highest concentrations of both manganese and iron were measured in monitoring well MW-12R. The concentrations of manganese and iron were low to absent in the AZPOC monitoring wells.

Sulfate concentrations were highest in monitoring wells MW-4 and MW-39 with the lowest iron concentrations and two of the lowest manganese concentrations. This may indicate that natural attenuation is not established or is occurring at a slower rate in monitoring well MW-4, and especially in monitoring well MW-39. Sulfate concentrations in the AZPOC monitoring wells were variable.

Natural attenuation sampling and evaluation occurs biennially and will occur next in 2027. Additional data will allow the evaluation of changes in conditions in the monitoring wells. The natural attenuation analytical data is located at the bottom of the table in **Appendix C**.

7.1.2 Impact Delineation Monitoring Wells

Nine monitoring wells are sampled for selected parameters to monitor the status of the groundwater impact in the area.

Barium is regularly detected in monitoring wells MW-46 and MW-51 with concentrations higher than the prediction limit. The barium concentration in monitoring well MW-56 also exceeded the prediction limit this reporting period.

Benzene is regularly detected at trace concentrations in monitoring wells MW-31 and MW-34. During this reporting period, benzene was not detected in MW-31 and the concentration in MW-34 was slightly above the reporting limit.

Vinyl chloride is regularly detected in monitoring wells MW-30 and MW-33, occasionally above the GWPS. During this reporting period, the vinyl chloride concentration in monitoring well MW-30 exceeded the GWPS but vinyl chloride was not detected in MW-33.

8.0 SUMMARY AND RECOMMENDATIONS

8.1 SITE IMPACT ON GROUNDWATER

- The areas of groundwater impact are generally defined near the monitoring wells with previously identified SSLs.
- For the source monitoring wells, 22 trends were increasing and 44 were stable or decreasing, indicating over 66% of the constituent-monitoring well trends were stable or decreasing.
- Based on the lack of VOC detection and few metals detections, apart from the source characterization monitoring wells, the remainder of the HMSP monitoring network appears generally not impacted.

8.2 PROPOSED MONITORING

Anticipated groundwater sampling for the 2026 reporting period is shown in **Table 2**.

8.3 PROPOSED MONITORING WELL CHANGES

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

Tables

Table 1
Monitoring Program Summary
2025 Annual Water Quality Report
Muscataine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Monitoring Well	Formation ⁽¹⁾	Current Monitoring Program	Change for Next Sampling Event	Constituents with SSLs during the 2025 Reporting Period ⁽²⁾	Constituents with SSLs	Total Number of Samples in Each Monitoring Program		
						Inorganic/Organic		
						Detection	Assessment	Corrective Action
HMSP Monitoring Points								
Water Table								
MW-29	Clay	Background	No Change	Not Applicable	Not Applicable	16/30	-	-
MW-50BG	Clay/Silt/Sand	Background	No Change	Not Applicable	Not Applicable	16/14	-	-
MW-2	Sand/Silt	Assessment	No Change	Barium, Cobalt	None	-	21/37	-
MW-9	Clay	Assessment	No Change	None	None	-	20/39	-
MW-10A	Silty Clay	Assessment	No Change	None	None	-	19/37	-
MW-20	Silt	Assessment	No Change	None	None	-	10/22	-
MW-21	Clay/Silt/Sand	Assessment	No Change	None	None	-	17/28	-
MW-22	Clay/Sand	Assessment	No Change	None	None	-	20/36	-
MW-24	Clay/Sand	Assessment	No Change	None	None	-	19/35	-
MW-25	Clay	Assessment	No Change	None	None	-	21/34	-
Bedrock								
MW-49BG	Limestone	Background	No Change	Not Applicable	Not Applicable	16/14	-	-
MW-11	Sand/Gravel, Clay, Limestone	Assessment	No Change	Cadmium	None	-	21/40	-
Corrective Action								
MW-4	Sand	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	21/39
MW-12R	Clay	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	21/40
MW-13	Sand/Gravel, Clay, Limestone	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	21/40
MW-23	Clay/Sand	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	20/36
MW-26 (AZPOC)	Clay	Assessment/ Corrective Action	No Change	None	Not Applicable	-	21/36	-
MW-36 (AZPOC)	Clay/Sand and Gravel	Background Collection/ Corrective Action	Corrective Action	Barium	Not Applicable	-	-	4/4
MW-37 (AZPOC)	Sand	Background Collection/ Corrective Action	Corrective Action	None	Not Applicable	-	-	4/4
MW-38	Clay/Sand and Gravel	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	22/22
MW-39	Clay/Silt	Source Characterization	No Change	Not Applicable	Not Applicable	-	-	21/21

Table 1
Monitoring Program Summary
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Monitoring Well	Formation ⁽¹⁾	Current Monitoring Program	Change for Next Sampling Event	Constituents with SSIs during the 2025 Reporting Period ⁽²⁾	Constituents with SSLs	Total Number of Samples in Each Monitoring Program		
						Detection	Assessment	Corrective Action
Other Monitoring Points								
MW-30	Unknown	Bracketing for Benzene and Vinyl chloride						
MW-31	Unknown	Bracketing for Benzene						
MW-33	Limestone	Bracketing for Benzene and Vinyl Chloride						
MW-34	Limestone	Bracketing for Benzene and Vinyl Chloride						
MW-35	Clay/Silt/Sand and Gravel	Bracketing for Vinyl Chloride						
MW-46	Clay	Bracketing for Arsenic, Barium, and Cobalt						
MW-51	Clay/Sand/Shale	Bracketing for Arsenic, Barium, and Cobalt						
MW-56	Sandy Clay	Bracketing for Barium						
MW-57	Sandy Clay	Bracketing for Barium						

Notes:

⁽¹⁾ Obtained from screened interval in boring logs or cross sections.

⁽²⁾ A single exceedance of an organic parameter or sulfide in an assessment monitoring well is recorded above as an SSI. Retesting is not performed as these monitoring wells are not in the detection monitoring program.

SSL = Statistically Significant Level above groundwater protection standards.

SSI = Statistically Significant Increase above background.

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	March 2025	July 2025	1 st 2026 Semi-Annual	2 nd 2026 Semi-Annual	Previously Collected	Next Event
MW-29	Not sampled (dry)	Metals List, TSS	Metals List, TSS		Not Applicable	Not Applicable
MW-49BG	Metals List, TSS		Metals List, TSS		Not Applicable	Not Applicable
MW-50BG	Metals List, TSS		Metals List, TSS		Not Applicable	Not Applicable
MW-2	Appendix II, TSS	Metals List, TSS	Metals List, TSS	Metals List, TSS	1/27/2010, 9/7/2010, 9/28/2015, 2/26/2020, 3/24/2025	2030
MW-4	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	Appendix I, TSS	1/27/2010, 9/7/2010, 9/28/2015, 2/26/2020	Not Applicable
MW-9	Metals List, TSS, Appendix I VOCs	Metals List, TSS, Appendix I VOCs	Appendix II, TSS	Metals List, TSS, Appendix I VOCs	7/13/2009, 9/7/2010, 2/10/2016, 4/27/2021	2026
MW-10A	Appendix II, TSS		Metals List, TSS		1/27/2010, 9/7/2010, 9/28/2015, 2/26/2020, 3/26/2025	2030
MW-11	Appendix II, TSS	Metals List, TSS, Appendix I VOCs	Metals List, TSS, Appendix I VOCs	Metals List, TSS, Appendix I VOCs	7/13/2009, 9/7/2010, 9/28/2015, 9/15/2020, 3/24/2025	2030
MW-12R	Appendix I, TSS, 2,4,5-TP [Silvex]	Appendix I, TSS, 2,4,5-TP [Silvex], Natural Attenuation	Appendix I, TSS, 2,4,5-TP [Silvex]	Appendix I, TSS, 2,4,5-TP [Silvex]	7/13/2009, 9/7/2010, 9/28/2015, 9/15/2020	Not Applicable
MW-13	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	7/13/2009, 9/7/2010, 9/28/2015, 4/27/2021	Not Applicable
MW-20	Metals List, TSS		Appendix II, TSS		1/27/2010, 9/7/2010, 2/10/2016, 4/27/2021	2026
MW-21	Metals List, TSS	Metals List, TSS	Appendix II, TSS	Metals List, TSS	7/13/2009, 9/7/2010, 2/10/2016, 4/27/2021	2026
MW-22	Appendix II, TSS	Metals List, TSS, Appendix I VOCs	Metals List, TSS, Appendix I VOCs	Metals List, TSS, Appendix I VOCs	7/13/2009, 9/7/2010, 9/28/2015, 2/26/2020, 3/25/2025	2030
MW-23	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	Appendix I, TSS	7/13/2009, 9/7/2010, 9/28/2015, 2/26/2020	Not Applicable
MW-24	Appendix II, TSS		Metals List, TSS		1/27/2010, 9/7/2010, 9/28/2015, 9/15/2020, 3/25/2025	2030
MW-25	Appendix II, TSS	Metals List, TSS	Metals List, TSS	Metals List, TSS	7/13/2009, 9/7/2010, 9/28/2015, 9/15/2020, 3/25/2025	2030
MW-26	Metals List, TSS, Sulfide	Appendix I, TSS, Sulfide, Natural Attenuation	Appendix I, TSS, Sulfide	Appendix I, TSS, Sulfide	3/26/2014, 9/11/2014, 4/23/2019, 6/25/2024	2029
MW-36	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-37	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-38	Metals List, TSS, Endosulfan I	Appendix I, TSS, Endosulfan I, Natural Attenuation	Appendix I, TSS, Endosulfan I	Appendix I, TSS, Endosulfan I	2/10/2016, 2/14/2017, 10/26/2022	Not Applicable
MW-39	Metals List, TSS, Endosulfan I	Appendix I, TSS, Endosulfan I, Natural Attenuation	Appendix I, TSS, Endosulfan I*	Appendix I, TSS, Endosulfan I*	2/10/2016, 2/14/2017, 5/24/2022	Not Applicable

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	March 2025	July 2025	1 st 2026 Semi-Annual	2 nd 2026 Semi-Annual	Previously Collected	Next Event
MW-30	Vinyl Chloride		Vinyl Chloride		Not Applicable	Not Applicable
MW-31	Benzene		Benzene		Not Applicable	Not Applicable
MW-33	Benzene, Vinyl Chloride		Benzene, Vinyl Chloride		Not Applicable	Not Applicable
MW-34	Benzene, Vinyl Chloride		Benzene, Vinyl Chloride		Not Applicable	Not Applicable
MW-35	Vinyl Chloride		Vinyl Chloride		Not Applicable	Not Applicable
MW-46	Barium, TSS		Barium, TSS		Not Applicable	Not Applicable
MW-51	Barium, TSS		Barium, TSS		Not Applicable	Not Applicable
MW-56	Barium, TSS		Barium, TSS		Not Applicable	Not Applicable
MW-57	Barium, TSS		Barium, TSS		Not Applicable	Not Applicable

Notes:

TSS - Total Suspended Solids.

"Metals List" includes arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, and zinc.

"Natural Attenuation" includes nitrate, manganese, iron, and sulfate.

* - Pending DNR review of the Report Priority of this report.

Table 3
Monitoring Well Maintenance and Performance Re-evaluation Schedule
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Compliance with:	2023	2024	2025	2026	2027
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)		Completed	Included ⁽²⁾	Scheduled	
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included ⁽¹⁾	Scheduled	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included ⁽²⁾	Scheduled	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)		Completed		Scheduled	
Waste separation from groundwater 113.6(2)"l"	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Notes:

(1) See Section 4.2 of this report.

(2) See Table 4.

Table 4
Monitoring Well Maintenance and Performance Summary
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth
					March 2025	July 2025	Discrepancy (ft)
MW-29	780.3	770.3	20.0	Groundwater Level (ft)	Dry	11.41	-0.5
				Groundwater Elevation (Ft MSL)	NA	768.89	
				Measured Well Depth (ft)	20.4	20.5	
				Submerged screen	N	N	
MW-49BG	677.6	608.1	76.0	Groundwater Level (ft)	20.77	NM	NA
				Groundwater Elevation (Ft MSL)	656.82	NA	
				Measured Well Depth (ft)	NM	NM	
				Submerged screen	Y	NA	
MW-50BG	690.9	674.2	26.7	Groundwater Level (ft)	13.18	NM	-0.3
				Groundwater Elevation (Ft MSL)	677.69	NA	
				Measured Well Depth (ft)	27.0	NM	
				Submerged screen	Y	NA	
MW-2	702.8	690.8	20.0	Groundwater Level (ft)	7.28	6.14	-3.9
				Groundwater Elevation (Ft MSL)	695.52	696.66	
				Measured Well Depth (ft)	23.8	23.9	
				Submerged screen	Y	Y	
MW-4	707.7	697.7	18.0	Groundwater Level (ft)	3.80	3.95	Metals List, TSS, Sulfide
				Groundwater Elevation (Ft MSL)	703.90	703.75	
				Measured Well Depth (ft)	16.2	16.2	
				Submerged screen	Y	Y	
MW-9	697.5	691.5	20.0	Groundwater Level (ft)	7.75	5.90	-2.6
				Groundwater Elevation (Ft MSL)	689.73	691.58	
				Measured Well Depth (ft)	22.5	22.6	
				Submerged screen	N	Y	
MW-10A	691.2	684.2	20.0	Groundwater Level (ft)	3.89	NM	0.4
				Groundwater Elevation (Ft MSL)	687.31	NA	
				Measured Well Depth (ft)	19.6	NM	
				Submerged screen	Y	NA	
MW-11	684.5	676.5	23.0	Groundwater Level (ft)	5.41	4.11	4.3
				Groundwater Elevation (Ft MSL)	679.09	680.39	
				Measured Well Depth (ft)	18.7	18.7	
				Submerged screen	Y	Y	
MW-12R	700.3	691.5	18.8	Groundwater Level (ft)	5.87	5.34	0.3
				Groundwater Elevation (Ft MSL)	694.43	694.96	
				Measured Well Depth (ft)	18.5	18.6	
				Submerged screen	Y	Y	
MW-13	684.2	656.7	37.0	Groundwater Level (ft)	6.56	5.52	-0.6
				Groundwater Elevation (Ft MSL)	677.64	678.68	
				Measured Well Depth (ft)	37.6	37.6	
				Submerged screen	Y	Y	
MW-20	690.1	682.3	12.8	Groundwater Level (ft)	9.39	NM	-0.4
				Groundwater Elevation (Ft MSL)	680.71	NA	
				Measured Well Depth (ft)	13.2	NM	
				Submerged screen	N	NA	
MW-21	696.3	686.3	20.0	Groundwater Level (ft)	11.86	10.11	-0.4
				Groundwater Elevation (Ft MSL)	684.44	686.19	
				Measured Well Depth (ft)	20.4	20.4	
				Submerged screen	N	N	
MW-22	689.0	679.0	20.0	Groundwater Level (ft)	9.49	5.43	-0.5
				Groundwater Elevation (Ft MSL)	679.51	683.57	
				Measured Well Depth (ft)	20.4	20.5	
				Submerged screen	Y	Y	
MW-23	755.4	731.4	54.2	Groundwater Level (ft)	45.64	45.90	4.2
				Groundwater Elevation (Ft MSL)	709.76	709.50	
				Measured Well Depth (ft)	53.8	50.0	
				Submerged screen	N	N	
MW-24	715.5	705.5	20.0	Groundwater Level (ft)	9.12	NM	0.6
				Groundwater Elevation (Ft MSL)	706.38	NA	
				Measured Well Depth (ft)	19.4	NM	
				Submerged screen	Y	NA	
MW-25	697.5	687.5	20.0	Groundwater Level (ft)	7.42	6.80	-0.4
				Groundwater Elevation (Ft MSL)	690.08	690.70	
				Measured Well Depth (ft)	20.4	20.4	
				Submerged screen	Y	Y	

Table 4
Monitoring Well Maintenance and Performance Summary
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth
					March 2025	July 2025	Discrepancy (ft)
MW-26	701.8	691.8	15.0	Groundwater Level (ft)	6.73	2.50	-0.3
				Groundwater Elevation (Ft MSL)	695.07	699.30	
				Measured Well Depth (ft)	15.3	15.3	
				Submerged screen	Y	Y	
MW-38	740.9	733.3	29.8	Groundwater Level (ft)	17.69	15.70	0.3
				Groundwater Elevation (Ft MSL)	723.21	725.20	
				Measured Well Depth (ft)	29.5	29.7	
				Submerged screen	N	N	
MW-39	756.0	751.2	26.7	Groundwater Level (ft)	7.00	4.80	-0.8
				Groundwater Elevation (Ft MSL)	749.00	751.20	
				Measured Well Depth (ft)	27.0	27.5	
				Submerged screen	N	Y	

Notes:

NA - Not Available
 NM - Not Measured.

Comments:

- Monitoring wells with dedicated sampling pumps are measured once every 5 years. Monitoring well MW-498G will be measured next during the 2026 reporting period.
- Measured well depths were within 1.8 foot of the installed depth with the following exceptions:
 - MW-2:** The measured well depths have been consistent over the past several reporting periods. It is likely that the reported installed depth was based on the ground level rather than the top of casing.
 - MW-9:** The measured well depths have been consistent over the past several reporting periods. It is likely that the reported installed depth based on the ground level rather than the top of casing.
 - MW-11:** The measured well depths have been consistent over the past several reporting periods. It does not appear that siltation is adversely impacting the ability of the monitoring well to consistently produce samples.
 - MW-23:** The measured well depths have been consistent over the past several reporting periods. It does not appear that siltation is adversely impacting the ability of the monitoring well to consistently produce samples.

Table 5
Background and GWPS Summary
2025 Annual Water Quality Report
Muscataine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Background/GWPS Water Table (MW-29 and MW-50BG)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	28	1	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00066	0.001	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	32	7	0.00053*	0.00768	0.00145	0.00768	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	32	32	0.0444	0.303	0.15057	0.303	PL (NP)	2	MCL
Beryllium (Be)	mg/L	28	1	0.000272*	0.0005 (1/2 RL)	0.00049	0.0005	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	32	4	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00015	0.00025	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	32	9	0.0011*	0.00832	0.00248	0.00832	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	32	24	0.000068*	0.00797	0.00212	0.00797	PL (NP)	0.00797	SSS
Copper (Cu)	mg/L	32	4	0.001 (1/2 RL)	0.00516	0.00252	0.00516	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	32	8	0.00014*	0.00312	0.00043	0.00312	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	32	17	0.00103*	0.0168	0.00738	0.0168	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	28	10	0.00096*	0.0025 (1/2 RL)	0.00212	0.0025	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	28	2	0.000142*	0.0005 (1/2 RL)	0.00048	0.0005	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	28	4	0.000026*	0.00154	0.00053	0.00154	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	28	15	0.000546*	0.0112	0.00234	0.0112	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	32	4	0.005 (1/2 RL)	0.04 (1/2 RL)	0.01095	0.04	PL (NP)	2	SWS

Background/GWPS Bedrock (MW-49BG)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	14	1	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00080	0.001	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	16	15	0.001 (1/2 RL)	0.00354	0.00216	0.003221	PL (P)	0.01	MCL
Barium (Ba)	mg/L	16	16	0.059	3.19	2.01056	2.855	PL (P)	2.855	SSS
Beryllium (Be)	mg/L	14	1	0.000308*	0.001 (1/2 RL)	0.00056	0.001	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	12	2	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00011	0.00025	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	12	2	0.00101*	0.0025 (1/2 RL)	0.00231	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	16	16	0.00486	0.0123	0.00682	0.00972	PL (P)	0.00972	SSS
Copper (Cu)	mg/L	16	3	0.0025 (1/2 RL)	0.0286	0.00496	0.0286	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	16	5	0.00025 (1/2 RL)	0.00225	0.00050	0.00225	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	16	16	0.00385*	0.0186	0.00759	0.01301	PL (P)	0.1	SWS
Selenium (Se)	mg/L	14	1	0.000971*	0.005 (1/2 RL)	0.00293	0.005	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	14	2	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00063	0.001	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	14	1	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00062	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	14	3	0.00096*	0.005 (1/2 RL)	0.00280	0.005	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	16	0	0.01 (1/2 RL)	0.04 (1/2 RL)	0.01375	< 0.08	DQR	2	SWS

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

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

Acronyms/Abbreviations:

RL = Reporting Limit
GWPS = Groundwater Protection Standard (mg/L)
DQR = Double Quantification Rule
SSS = Site-Specific GWPS
SWS = Statewide Standard

PL = Prediction Limit
MCL = EPA Maximum Contaminant Level
NP = Non-Parametric
P = Parametric

Comments:

- Water quality results and effectiveness of the statistical data evaluation criteria:** Statistical evaluations consist of prediction limits, double quantification rule, and confidence intervals/confidence bands, as appropriate. Data from the background wells is not used for development of the confidence intervals or confidence bands.
- Changes to the previous statistical method during reporting period:** There were no changes to the statistical method during this reporting period.
- Re-sampling strategy:** Retesting is performed on a 1-of-2 scheme.
- Justification for data exclusion:** Due to the effect of elevated TSS on inorganic concentrations, data obtained prior to the implementation of low-flow sampling was removed from statistical consideration.

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Well	Constituent	Units	Most Recent Result	Background Standard
MW-11	Cadmium	mg/L	0.000283	0.00025

Notes:

- 1) Criteria for inclusion in this table is a well/constituent pair with an SSI indicated during the 2025 reporting period that was not indicated as an SSI during the 2024 reporting period.

Comments:

- 1) **Problems with the current detection network:** None.
- 2) **Schedule to implement remedies:** Not applicable.
- 3) **Alternative constituent or sample frequency changes:** None.
- 4) **Retesting scheme:** If any monitoring well returns to the detection monitoring program, retesting will be performed on a 1-of 2 retesting scheme.

Table 7
Summary of Ongoing and Newly Identified SSIs
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-2	Barium	mg/L	0.393	0.303	0.2416	2	7/29/2025	NM	9/19/2017
	Cobalt	mg/L	0.0344	0.00797	0.000224	0.00797	7/29/2025	NM	9/19/2017
MW-9	None								
MW-10A	None								
MW-11	Cadmium	mg/L	0.000283	0.00025	0.00008367	0.005	7/29/2025	NM	7/8/2008
MW-20	None								
MW-21	None								
MW-22	None								
MW-24	None								
MW-25	None								
MW-26	None								
MW-36	Barium	mg/L	0.279	0.303	0.156	2	3/24/2025	NM	4 samples collected
MW-37	None								

Notes:

1) Ongoing SSI is defined as an indicated SSI for a monitoring well/constituent pair in both the 2024 and 2025 reporting periods.

NM - Not Measured; retesting of constituents with indicated SSIs above background was not part of the statistical methodology performed by the previous consultant. For this reason, monitoring wells were moved to the assessment monitoring program following the collection of the 5th background sample.

Shaded indicates an SSI indicated during the 2025 reporting period that was not indicated as an SSI during the 2024 reporting period.

Comments:

- 1) **Problems with the current assessment network:** None.
- 2) **Proposed remedies:** None.
- 3) **Alternative constituent of sample frequency changes:** None.
- 4) **Plume delineation strategies:** Bracketing wells are sampled annually to define areas of impact.

Table 8
Summary of Ongoing and Newly Identified SSLs
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

AZPOC Well	Original Well(s)	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS					
								1 st Year		2 nd Year		3 rd Year	
MW-26													
	MW-4, MW-38	Arsenic	mg/L	0.000791*	0.00314	0.01	2019	6/24	10/24	3/25	7/25	NA	NA
	MW-38	Barium	mg/L	0.0342	0.1356	2	2019	6/24	10/24	3/25	7/25	NA	NA
	MW-38, MW-39	Cobalt	mg/L	0.000674	0.001767	0.00797	2019	6/24	10/24	3/25	7/25	NA	NA
MW-36													
	MW-12R	Arsenic	mg/L	<0.002	<GWPS	0.01	2023	6/24	10/24	3/25	7/25	NA	NA
	MW-12R	Barium	mg/L	0.279	0.3897	2	2020	6/24	10/24	3/25	7/25	NA	NA
	MW-12R	Cobalt	mg/L	<0.0005	<GWPS	0.00797	2022	6/24	10/24	3/25	7/25	NA	NA
MW-37													
	MW-23	Benzene	µg/L	<0.5	<GPWS	5	2013	6/24	10/24	3/25	7/25	NA	NA
None**	MW-13	Vinyl Chloride	µg/L	1.84	2.817	2	2015	NA	NA	NA	NA	NA	NA

Notes

- 1) * - J flag; concentration was below the reporting limit but above the method detection limit, the concentration is estimated.
- 2) ** - Monitoring well MW-13 does not utilize an AZPOC monitoring well to evaluate compliance.
- 3) "<GWPS" indicates that the AZPOC monitoring well has no quantified concentrations, which are needed to calculate confidence limits. The lack of detections was considered to satisfy the statistical requirements of IAC 567-113.10(9)"e"(2).
- 4) NA - Indicates that the constituent-monitoring point dataset has not satisfied the statistical requirements of IAC 567-113.10(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.
- 5) The "Selection of Remedy and Corrective Action Groundwater Monitoring Program" was submitted on May 9, 2024 (Doc #110026). This date is considered the beginning of the three year period specified in IAC 567-113.10(9)e (2).

Table 9
Summary of Groundwater Chemistry
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
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The Summary of Groundwater Chemistry for this reporting period is located in Appendix C.

Analytical data from prior to 2025 is located in the 2024 Annual Water Quality Report, dated February 25, 2025 (Doc #112391).

Table 10
Historical SSIs and SSLs
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Key

	SSI - Statistically Significant Increase Above Background
	SSL - Statistically Significant Level Above a Groundwater Protection Standard

Well	Constituent	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025
MW-2	Barium														
	Cobalt														
	Nickel														
MW-9	Arsenic														
	Barium														
	Cadmium														
	Cobalt														
	Nickel														
	Benzene														
	Chlorobenzene														
MW-10A	cis-1,2-Dichloroethene														
	Barium														
MW-11	Zinc												NS		NS
	Cadmium												NS		NS
	Chromium														
MW-20	cis-1,2-Dichloroethene														
	Selenium										NS		NS		NS
MW-21	Barium														
	Cadmium														
MW-22	Barium							NS							
	Cadmium														
	Nickel							NS							
	Benzene							NS							
MW-24	Copper												NS		NS
MW-25	None														
MW-26	Sulfide														
MW-36	Barium														
MW-37	Acetone														
Source Wells															
MW-4	Arsenic														
	Barium														
	Toluene														
MW-12R	Arsenic														
	Barium														
	Cobalt														
	Nickel														
	Benzene														
	Chlorobenzene														
MW-13	2,4,5-TP [Silvex]														
	Arsenic														
	Thallium														
	1,1-Dichloroethane														
	Benzene														
	cis-1,2-Dichloroethene														
MW-23	trans-1,2-Dichloroethene														
	Vinyl Chloride														
	Arsenic										NS				
	Barium										NS				
	Chromium										NS				
	Cobalt										NS				
	Copper										NS				
	Nickel										NS				
	Benzene														
	Carbon Disulfide										NS				
	Chlorobenzene										NS				
	Chloroethane										NS				
	cis-1,2-Dichloroethene										NS				

Table 10
Historical SSIs and SSLs
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Key

	SSI - Statistically Significant Increase Above Background
	SSL - Statistically Significant Level Above a Groundwater Protection Standard

Well	Constituent	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025
MW-38	Arsenic														
	Barium														
	Cobalt														
	Nickel							NS							
	1,1-Dichloroethane							NS							
	1,4-Dichlorobenzene							NS							
	Acetone							NS							
	Benzene							NS							
	Chlorobenzene							NS							
	Ethylbenzene							NS							
	Endosulfan I							NS							
MW-39	Arsenic						NS								
	Barium						NS								
	Cadmium						NS								
	Cobalt														
	Copper						NS								
	Nickel						NS								
	1,2-Dichlorobenzene						NS								
	1,4-Dichlorobenzene						NS								
	Benzene						NS								
	Carbon Disulfide						NS								
	Chlorobenzene						NS								
	Endosulfan I						NS								

Comments:

- 1) NS - Not sampled during the sampling event due to annual sampling or insufficient water; therefore, statistical analyses were not performed.
- 2) For the 2022 reporting period and earlier, only initial confirmed SSIs were recorded on this table for inorganic compounds. Beginning in the 2023 reporting period, indicated inorganic SSIs are included in this table.
- 3) SSIs recorded on this table for monitoring points in the assessment and corrective action monitoring programs are not confirmed.
- 4) A detection of an organic compound or sulfide is recorded as an SSI for this table.

Table 11
Corrective Action Trend Analysis
2025 Annual Water Quality Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Well	Constituent	Trend	Calculated S	Critical S	Total N
Statistically Significant Trends in Source Wells					
MW-4	Barium	Decreasing	-24	-21	8

Overall Trends of Detected Appendix I Constituents in Source Wells						
	MW-4	MW-12R	MW-13	MW-23	MW-38	MW-39
Increasing ($S = >0$):	0	3	4	3	6	1
Decreasing ($S \leq 0$):	3	4	5	10	4	8

Overall Trends of Detected Appendix I Constituents in AZPOC Wells				
	MW-26	MW-36	MW-37	Total
Increasing ($S = >0$):	4	1	0	22
Decreasing ($S \leq 0$):	3	2	5	44

Over 66% of the trends are stable or decreasing.

Mann-Kendall/Sen's Slope trending summary tables and graphs are included in Appendix D.

Notes:

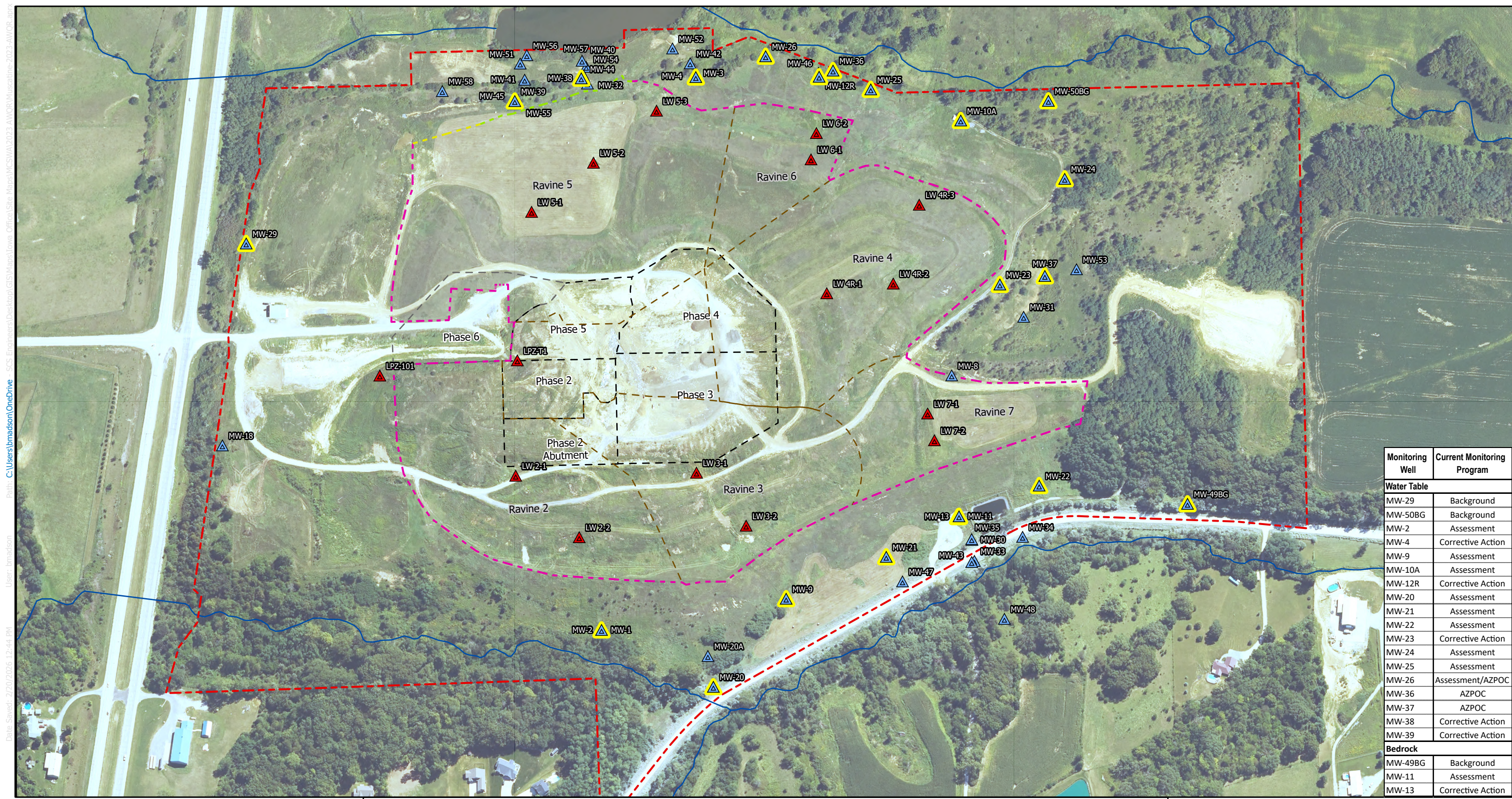
N - Number of Samples

S - Mann-Kendall Statistic

Comments:

- 1) The approved remedy is source control via surface water drainage improvements, leachate management systems, and passive landfill gas vents coupled with monitored natural attenuation (Doc #110026).
- 2) The source control methods are in place and are addressing groundwater impact.

Figures



Monitoring Well	Current Monitoring Program
Water Table	
MW-29	Background
MW-50BG	Background
MW-2	Assessment
MW-4	Corrective Action
MW-9	Assessment
MW-10A	Assessment
MW-12R	Corrective Action
MW-20	Assessment
MW-21	Assessment
MW-22	Assessment
MW-23	Corrective Action
MW-24	Assessment
MW-25	Assessment
MW-26	Assessment/AZPOC
MW-36	AZPOC
MW-37	AZPOC
MW-38	Corrective Action
MW-39	Corrective Action
Bedrock	
MW-49BG	Background
MW-11	Assessment
MW-13	Corrective Action



Approved Monitoring Network

Legend

- HMSP Monitoring Well
- Monitoring Well
- Leachate Piezometer
- Approximate Existing Waste Boundry

- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Location of Closed Ravine Cell Boundary
- Approximate Location of Existing FML Cell Boundary

- Approximate Location of Future FML Cell Boundary
- Approximate Property Boundary
- Stream

Muscatine County Sanitary Landfill
Blue Grass, Iowa
Project No: 27223255.26
Drawing Date: September 2025

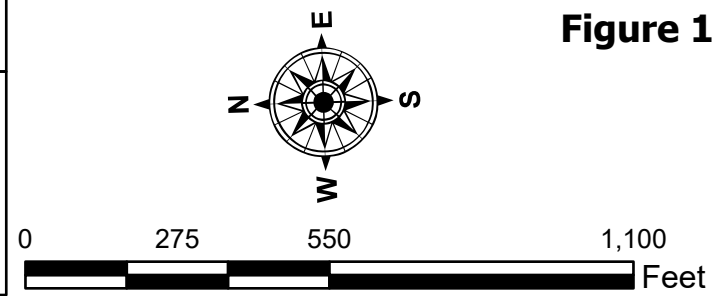
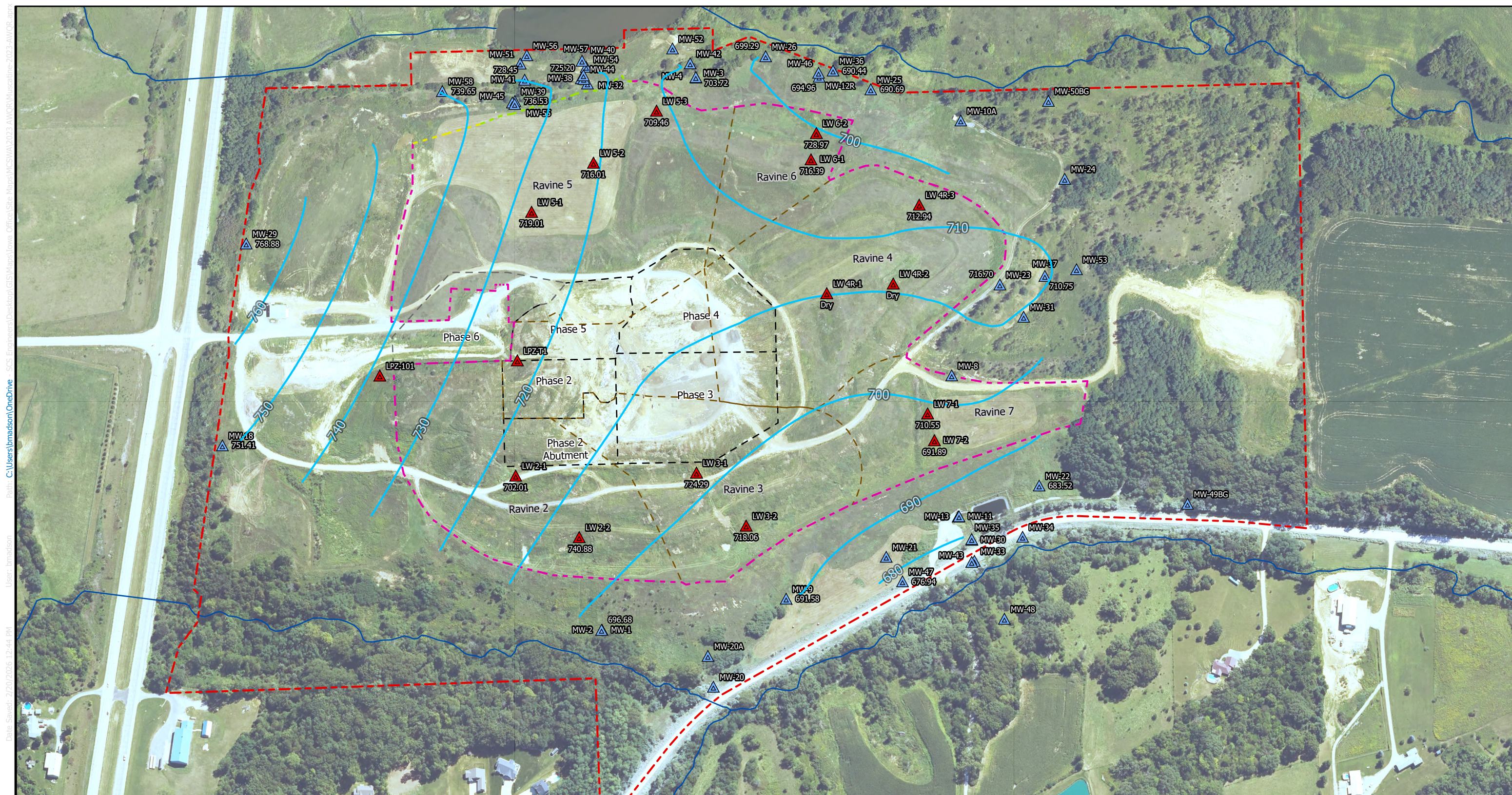
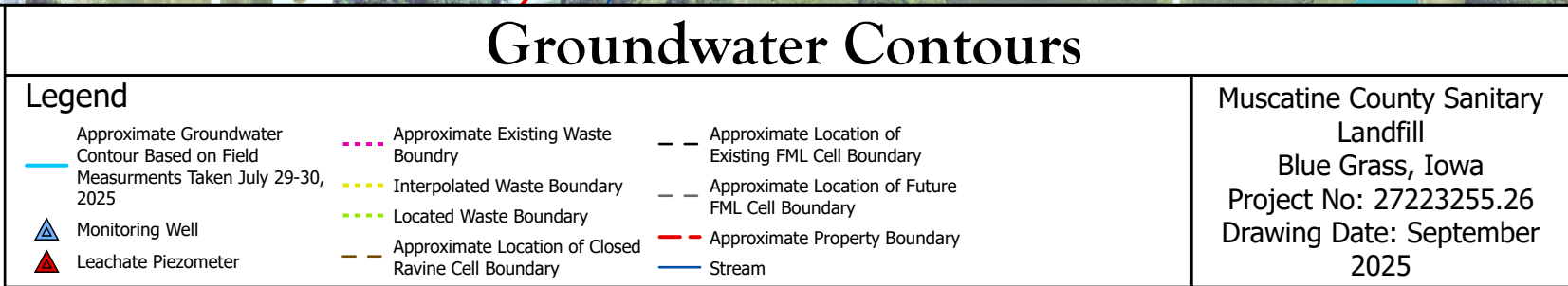


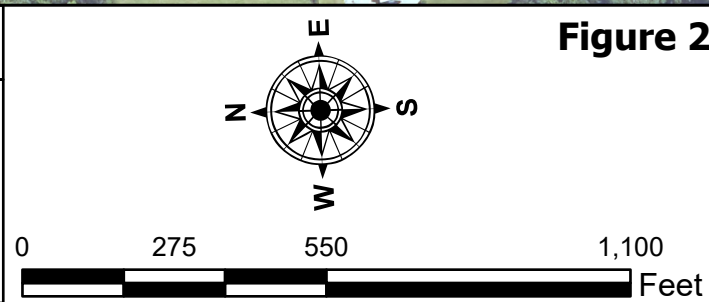
Figure 1



Path: C:\Users\bmadsen\OneDrive
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Source: Esri, DeLorme, Garmin, FAO, NOAA, USGS, OpenStreetMap contributors, and the GIS User Community, Esri, COGIC, USGS, USDA NRI, Iowa State University GIS Facility



Appendix A
Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-2	Date: 3/24/2025
Gradient: Down	Sampler: Michael Morgan

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):	23.8
Initial Static Water Level (feet):	7.28
Initial Groundwater Elevation (ft-amsl):	695.52
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)	
5:13 PM	Purging start time.						
5:16 PM	9.2	2.7	673.0	7.46	299.5	3.1	
5:19 PM	8.9	2.0	666.2	7.45	318.1	15.3	
5:22 PM	8.8	1.9	665.8	7.45	327.4	15.2	
5:25 PM	8.8	1.8	665.7	7.44	334.5	13.6	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance? Yes	
If yes, explain:	Well casing lid broken. Lock needed.
Additional Comments:	Color: Clear Odor: None Ants in groundwater.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-4	Date: 3/26/2025
Gradient: Down	Sampler: Michael Morgan

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):	16.2
Initial Static Water Level (feet):	3.80
Initial Groundwater Elevation (ft-amsl):	703.87
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)	
4:19 PM	Purging start time.						
4:22 PM	9.0	0.9	1560.5	6.60	244.8	54.7	
4:25 PM	9.1	0.6	1563.0	6.61	232.1	97.7	
4:28 PM	9.4	0.5	1564.2	6.62	231.9	91.9	
4:31 PM	9.5	0.5	1570.1	6.62	235.2	91.9	
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?	Yes
If yes, explain:	Well casing has rusted holes, requires patching.
Additional Comments:	Color: Clear Odor: None Fine particulate.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-9	Date: 3/26/2025
Gradient: Down	Sampler: Michael Morgan

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):	22.5
Initial Static Water Level (feet):	7.75
Initial Groundwater Elevation (ft-amsl):	689.73
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)	
8:24 AM	Purging start time.						
8:27 AM	6.9	4.3	642.2	6.57	341.6	14.9	
8:30 AM	6.8	3.9	641.3	6.56	353.8	20.1	
8:33 AM	6.7	3.8	640.3	6.56	361.1	34.9	
8:36 AM	6.7	3.7	638.6	6.55	366.7	54.6	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Slight yellow tint Odor: None Orange particulate.

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-11	Date: 3/24/2025
Gradient: Down	Sampler: Michael Morgan

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):	18.7
Initial Static Water Level (feet):	5.41
Initial Groundwater Elevation (ft-amsl):	679.07
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)	
4:00 PM	Purging start time.						
4:03 PM	8.8	4.8	862.6	6.88	332.8	2.6	
4:06 PM	8.7	4.4	847.4	6.86	342.2	2.6	
4:09 PM	8.7	4.3	844.8	6.85	350.4	2.4	
4:12 PM	8.8	4.3	843.8	6.85	358.7	2.8	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-12R	Date: 3/24/2025
Gradient: Down	Sampler: Michael Morgan

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? Yes	Litter

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.5
Initial Static Water Level (feet):	5.87
Initial Groundwater Elevation (ft-amsl):	694.43
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)	
2:14 PM	Purging start time.						
2:17 PM	8.9	1.4	5850.9	6.35	0.4	9.2	
2:20 PM	8.8	0.7	5909.1	6.39	4.3	10.2	
2:23 PM	8.5	0.4	5936.4	6.42	9.5	11.0	
2:26 PM	8.4	0.3	5933.5	6.44	12.8	10.2	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: Landfill Fine particulate.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-13	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	37.6
Initial Static Water Level (feet):	6.56
Initial Groundwater Elevation (ft-amsl):	677.65
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)	
4:46 PM	Purging start time.						
4:49 PM	10.1	2.0	1516.9	6.77	280.7	5.0	
4:52 PM	10.2	0.8	1498.9	6.76	258.7	11.1	
4:55 PM	10.2	0.5	1498.4	6.75	222.0	12.3	
4:58 PM	10.2	0.4	1498.4	6.74	231.4	13.5	
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: Organics Orange particulate.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-20	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	13.2
Initial Static Water Level (feet):	9.39
Initial Groundwater Elevation (ft-amsl):	680.70
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)	
11:09 AM	Purging start time.						
11:12 AM	6.1	2.0	1446.7	6.65	284.2	0.5	
11:15 AM	5.9	1.3	1459.1	6.66	310.6	0.8	
11:18 AM	5.9	1.1	1467.2	6.66	325.5	0.8	
11:21 AM	5.9	0.9	1469.3	6.67	335.1	0.7	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-21	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	20.4
Initial Static Water Level (feet):	11.86
Initial Groundwater Elevation (ft-amsl):	684.41
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)	
12:12 PM	Purging start time.						
12:15 PM	9.1	9.4	497.6	6.43	311.7	6.7	
12:18 PM	9.1	9.7	316.2	6.28	335.5	9.1	
12:21 PM	9.1	9.8	251.0	6.20	347.9	12.0	
12:24 PM	9.0	9.8	206.0	6.16	355.4	17.4	
12:27 PM	9.0	9.8	182.9	6.14	360.7	20.2	
12:30 PM	8.9	9.8	169.1	6.12	364.6	24.5	
12:33 PM	9.1	9.8	158.4	6.11	367.5	28.6	
12:36 PM	9.1	9.8	153.5	6.10	370.1	33.4	
12:39 PM	9.1	9.8	151.5	6.09	372.9	27.5	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	3.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	27:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Well casing broken.
Additional Comments:	Color: Clear Odor: None Air bubbles during stabilization affecting turbidity probe.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-22	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	20.4
Initial Static Water Level (feet):	9.49
Initial Groundwater Elevation (ft-amsl):	679.46
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)	
3:30 PM	Purging start time.						
3:33 PM	9.8	2.7	3036.6	6.32	262.8	24.7	
3:36 PM	9.1	2.7	2656.9	6.46	275.6	12.3	
3:39 PM	8.8	5.1	2223.6	6.59	301.8	5.6	
3:42 PM	8.6	5.2	2024.0	6.65	322.5	3.2	
3:45 PM	8.4	6.9	1936.6	6.67	336.4	2.8	
3:48 PM	8.2	7.5	1885.9	6.69	346.3	2.2	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	18:00
Average Purge Rate (mL/min):	116.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Well casing lid won't close. Lock needed.
Additional Comments:	Color: Clear Odor: Landfill

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-23	Date: 3/27/2025
Gradient: Down	Sampler: Michael Morgan

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):	53.8
Initial Static Water Level (feet):	45.64
Initial Groundwater Elevation (ft-amsl):	716.96
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)	
11:51 AM	Purging start time.						
11:54 AM	12.7	0.8	1435.4	6.38	5.9	54.8	
11:57 AM	13.3	0.4	1429.6	6.36	11.5	49.5	
12:00 PM	13.8	0.2	1423.8	6.35	27.1	35.7	
12:03 PM	14.0	0.1	1421.3	6.33	45.4	27.3	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	3.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	308.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Opaque light brown Odor: Landfill Lock replaced.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-24	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	13.4
Initial Static Water Level (feet):	9.12
Initial Groundwater Elevation (ft-amsl):	706.40
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)	
8:43 AM	Purging start time.						
8:46 AM	7.9	3.8	790.5	6.91	307.7	1.8	
8:49 AM	7.7	3.5	793.9	6.91	336.2	2.8	
8:52 AM	7.6	3.3	794.1	6.92	349.8	1.9	
8:55 AM	7.6	3.2	794.6	6.92	358.5	1.2	
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?	Yes
If yes, explain:	Well casing lid.
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-25	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	20.4
Initial Static Water Level (feet):	7.42
Initial Groundwater Elevation (ft-amsl):	690.07
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)	
6:22 PM	Purging start time.						
6:25 PM	7.9	4.7	832.9	6.60	335.0	3.0	
6:28 PM	7.8	4.3	744.3	6.58	351.3	4.2	
6:31 PM	7.7	4.0	734.1	6.56	358.7	2.4	
6:34 PM	7.7	3.9	732.8	6.54	363.6	1.7	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Well casing lid needs adjusting.
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-26	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	15.3
Initial Static Water Level (feet):	6.73
Initial Groundwater Elevation (ft-amsl):	695.06
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)	
2:30 PM	Purging start time.						
2:33 PM	8.7	2.1	649.7	6.96	338.6	11.9	
2:36 PM	8.5	1.5	638.3	6.96	344.7	5.5	
2:39 PM	8.7	1.3	637.0	6.95	351.9	4.8	
2:42 PM	8.7	1.2	634.4	6.95	359.2	6.6	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-29	Date: 3/24/2025
Gradient: Up	Sampler: Michael Morgan

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):	20.4
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	

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)	
	Purging start time.						
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

Does the well require any future maintenance?		No
If yes, explain:		
Additional Comments:	Well dry - no sample.	

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-30	Date: 3/27/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	52.5
Initial Static Water Level (feet):	4.97
Initial Groundwater Elevation (ft-amsl):	677.56
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)	
8:19 AM	Purging start time.						
8:22 AM	9.1	2.8	1407.1	6.70	258.5	1.6	
8:25 AM	9.0	1.0	1444.3	6.69	258.4	1.4	
8:28 AM	9.0	0.6	1453.0	6.70	261.9	1.2	
8:31 AM	8.8	0.5	1459.1	6.70	266.1	0.9	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-31	Date: 3/26/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	24.9
Initial Static Water Level (feet):	5.01
Initial Groundwater Elevation (ft-amsl):	710.32
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)	
2:34 PM	Purging start time.						
2:37 PM	10.6	1.8	1207.5	7.06	267.5	76.1	
2:40 PM	10.2	1.5	1165.6	7.07	256.4	84.3	
2:43 PM	9.9	1.7	1154.6	7.06	265.6	91.6	
2:46 PM	9.8	1.8	1147.2	7.05	278.2	106.8	
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?	Yes
If yes, explain:	Lock needed.
Additional Comments:	Color: Red brown tint Odor: None No tubing in well, installed 21ft peristaltic tubing.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-33	Date: 3/27/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	52.0
Initial Static Water Level (feet):	0.80
Initial Groundwater Elevation (ft-amsl):	677.58
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)	
9:24 AM	Purging start time.						
9:27 AM	8.4	1.8	1192.4	6.91	287.9	1.5	
9:30 AM	8.3	0.9	1195.8	6.91	325.4	4.7	
9:33 AM	8.1	0.7	1197.4	6.92	341.4	3.8	
9:36 AM	8.1	1.1	1185.4	6.95	349.2	1.3	
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 Fine orange particulate.

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-35	Date: 3/27/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	22.2
Initial Static Water Level (feet):	8.38
Initial Groundwater Elevation (ft-amsl):	674.73
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)	
8:44 AM	Purging start time.						
8:47 AM	7.6	1.4	1164.8	6.73	298.4	1.7	
8:50 AM	7.5	0.6	1146.0	6.72	325.3	0.7	
8:53 AM	7.6	0.4	1143.1	6.71	339.8	0.6	
8:56 AM	7.6	0.3	1144.7	6.70	349.7	0.4	
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

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-36	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	18.5
Initial Static Water Level (feet):	8.29
Initial Groundwater Elevation (ft-amsl):	688.63
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)	
5:46 PM	Purging start time.						
5:49 PM	8.3	2.9	1708.9	6.63	353.3	3.1	
5:52 PM	7.9	2.5	1710.2	6.63	355.9	1.5	
5:55 PM	7.9	2.3	1711.1	6.62	359.7	1.3	
5:58 PM	7.8	2.2	1711.5	6.62	364.4	1.5	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-37	Date: 3/26/2025
Gradient: Down	Sampler: Michael Morgan

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):	8.7
Initial Static Water Level (feet):	5.58
Initial Groundwater Elevation (ft-amsl):	709.58
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)	
3:05 PM	Purging start time.						
3:08 PM	9.4	2.0	231.1	7.04	202.5	6.5	
3:11 PM	9.1	3.9	172.9	7.02	238.0	3.1	
3:14 PM	9.2	4.7	157.2	6.98	263.2	3.6	
3:17 PM	8.7	4.8	154.3	6.96	284.9	3.6	
3:20 PM	8.7	4.2	157.3	6.94	296.5	3.3	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	126.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Lock needed
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-38	Date: 3/26/2025
Gradient: Down	Sampler: Michael Morgan

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):	29.5
Initial Static Water Level (feet):	17.69
Initial Groundwater Elevation (ft-amsl):	723.21
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)	
10:11 AM	Purging start time.						
10:14 AM	11.9	0.8	5245.2	6.23	160.2	5.8	
10:17 AM	12.2	0.4	5324.9	6.25	172.3	4.0	
10:20 AM	12.3	0.3	5347.0	6.26	190.4	2.3	
10:23 AM	12.3	0.2	5359.5	6.27	204.7	1.8	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.5
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	125.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: Slight landfill

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-39	Date: 3/25/2025
Gradient: Down	Sampler: Michael Morgan

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):	27.0
Initial Static Water Level (feet):	7.00
Initial Groundwater Elevation (ft-amsl):	749.02
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)	
1:33 PM	Purging start time.						
1:36 PM	9.7	1.4	1163.3	6.48	127.2	3.9	
1:39 PM	9.6	0.5	1158.7	6.50	102.3	6.5	
1:42 PM	9.6	0.4	1049.4	6.61	175.8	9.2	
1:45 PM	9.6	0.7	963.4	6.65	241.6	9.9	
1:48 PM	9.6	0.7	951.8	6.64	257.7	12.5	
1:51 PM	9.9	0.5	961.4	6.64	242.3	254.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	18:00
Average Purge Rate (mL/min):	127.78

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear then became cloudy. Odor: Sulfur

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-49BG	Date: 3/25/2025
Gradient: Up	Sampler: Michael Morgan

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):	NM
Initial Static Water Level (feet):	20.77
Initial Groundwater Elevation (ft-amsl):	656.82
Equipment Used:	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)	
10:10 AM	Purging start time.						
10:13 AM	10.1	0.5	747.1	7.41	-40.9	12.2	
10:16 AM	10.1	0.1	747.9	7.32	-16.0	5.9	
10:19 AM	10.2	<0.1	749.6	7.28	22.7	2.3	
10:22 AM	10.3	<0.1	750.4	7.26	44.1	1.8	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	4.5
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	375.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Lock needed.
Additional Comments:	Color: Clear Odor: Slight sulfur Detritus/invertebrates.

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-50BG	Date: 3/24/2025
Gradient: Up	Sampler: Michael Morgan

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):	27.0
Initial Static Water Level (feet):	13.18
Initial Groundwater Elevation (ft-amsl):	677.69
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)	
3:13 PM	Purging start time.						
3:16 PM	10.6	2.1	1142.4	7.30	265.2	2.7	
3:19 PM	10.4	1.5	1079.6	7.26	298.6	2.5	
3:22 PM	10.2	1.3	1061.3	7.23	318.3	2.3	
3:25 PM	10.3	1.3	1054.8	7.22	332.9	2.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-56	Date: 3/26/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	8.2
Initial Static Water Level (feet):	2.57
Initial Groundwater Elevation (ft-amsl):	718.91
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)	
12:02 PM	Purging start time.						
12:05 PM	7.9	2.8	2781.7	6.42	264.5	16.2	
12:08 PM	7.7	1.2	2819.4	6.48	232.1	13.4	
12:11 PM	7.7	0.6	2826.4	6.51	224.7	11.9	
12:14 PM	7.7	0.4	2827.8	6.52	229.3	7.4	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: Slight landfill

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-57	Date: 3/26/2025
Gradient: Supplemental	Sampler: Michael Morgan

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):	8.4
Initial Static Water Level (feet):	2.71
Initial Groundwater Elevation (ft-amsl):	721.46
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)	
11:06 AM	Purging start time.						
11:09 AM	8.2	8.9	92.4	6.69	301.1	98.1	
11:12 AM	8.5	8.8	73.6	6.57	333.9	74.6	
11:15 AM	9.3	8.9	77.2	6.50	351.5	67.1	
11:18 AM	8.7	9.0	71.2	6.46	369.6	67.3	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	241.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Cloudy brown Odor: Slight landfill

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-2	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	23.9
Initial Static Water Level (feet):	6.14
Initial Groundwater Elevation (ft-amsl):	696.66
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)	
1:03 PM	Purging start time.						
1:06 PM	16.9	0.4	755.4	7.17	-102.3	9.5	
1:09 PM	16.8	0.1	754.9	7.19	-117.2	8.1	
1:12 PM	16.9	0.1	753.0	7.20	-123.0	14.4	
1:15 PM	17.2	<0.1	750.2	7.20	-126.1	259.2	
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 with black particles Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-4	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	16.2
Initial Static Water Level (feet):	3.95
Initial Groundwater Elevation (ft-amsl):	703.72
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)	
12:36 PM	Purging start time.						
12:39 PM	18.0	0.3	1709.9	6.40	-46.3	8.9	
12:42 PM	17.9	0.1	1693.3	6.42	-63.9	13.9	
12:45 PM	18.3	0.1	1681.5	6.42	-78.7	25.3	
12:48 PM	18.7	<0.1	1677.7	6.43	-85.9	36.4	
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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-9	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	22.6
Initial Static Water Level (feet):	5.90
Initial Groundwater Elevation (ft-amsl):	691.58
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)	
12:26 PM	Purging start time.						
12:29 PM	18.5	1.3	579.3	6.36	221.1	8.4	
12:32 PM	18.3	1.1	581.4	6.37	220.6	9.8	
12:35 PM	18.6	1.0	582.7	6.36	218.8	7.3	
12:38 PM	18.7	0.8	586.0	6.35	216.7	8.2	
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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-11	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.7
Initial Static Water Level (feet):	4.11
Initial Groundwater Elevation (ft-amsl):	680.37
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)	
2:10 PM	Purging start time.						
2:13 PM	18.8	0.3	854.9	6.56	236.8	2.5	
2:16 PM	20.1	0.2	847.8	6.59	226.4	2.6	
2:19 PM	20.1	0.1	857.5	6.60	218.7	2.7	
2:22 PM	19.7	0.1	858.0	6.60	212.3	2.5	
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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-12R	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.6
Initial Static Water Level (feet):	5.34
Initial Groundwater Elevation (ft-amsl):	694.96
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)	
4:18 PM	Purging start time.						
4:21 PM	17.6	0.3	6239.7	6.32	-76.9	12.2	
4:24 PM	18.3	0.1	6230.6	6.36	-84.6	53.2	
4:27 PM	18.8	0.1	6187.4	6.37	-87.9	92.6	
4:30 PM	18.5	<0.1	6200.6	6.38	-89.1	101.3	
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: Landfill

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-21	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	20.4
Initial Static Water Level (feet):	10.11
Initial Groundwater Elevation (ft-amsl):	686.16
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)	
1:34 PM	Purging start time.						
1:37 PM	19.7	4.8	213.1	5.98	141.4	6.4	
1:40 PM	19.1	4.7	181.2	5.91	187.6	5.7	
1:43 PM	18.9	4.7	179.8	5.89	215.7	6.8	
1:46 PM	19.3	4.7	178.5	5.87	234.7	5.6	
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

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-22	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	20.5
Initial Static Water Level (feet):	5.43
Initial Groundwater Elevation (ft-amsl):	683.52
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)	
2:46 PM	Purging start time.						
2:49 PM	18.3	1.1	2550.3	6.41	17.7	5.1	
2:52 PM	18.6	1.0	1863.3	6.52	41.6	5.7	
2:55 PM	18.1	0.8	1648.1	6.53	61.9	13.2	
2:58 PM	18.2	0.7	1570.0	6.53	71.7	21.1	
3:01 PM	17.8	1.0	1553.8	6.53	80.8	31.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	225.00

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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-23	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	50.0
Initial Static Water Level (feet):	45.90
Initial Groundwater Elevation (ft-amsl):	716.70
Equipment Used:	Stainless Steel 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)	
10:13 AM	Purging start time.						
10:16 AM	17.1	0.4	1494.6	6.22	-57.4	227.6	
10:19 AM	16.0	0.1	1478.3	6.21	-62.4	521.8	
10:22 AM	16.1	<0.1	1498.9	6.20	-65.9	231.5	
10:25 AM	15.7	<0.1	1526.2	6.21	-70.5	144.4	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Cloudy Odor: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-25	Date: 7/29/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	20.4
Initial Static Water Level (feet):	6.80
Initial Groundwater Elevation (ft-amsl):	690.69
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)	
3:42 PM	Purging start time.						
3:45 PM	18.3	3.5	820.0	6.49	212.7	2.8	
3:48 PM	17.9	4.6	647.3	6.56	224.5	2.7	
3:51 PM	18.7	4.6	608.2	6.54	236.4	4.0	
3:54 PM	18.5	4.5	608.8	6.52	245.6	7.5	
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: None

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill							
Monitoring Well/Piezometer ID: MW-26						Date:	7/30/2025
Gradient: Down		Sampler: Konner Roth					
A. MW/PIEZOMETER CONDITIONS							
Well/Piezometer Capped? Yes							
Litter/Standing Water? No							
B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)							
Measured Well Total Depth (feet):				15.4			
Initial Static Water Level (feet):				2.50			
Initial Groundwater Elevation (ft-amsl):				699.29			
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)	
11:23 AM	Purging start time.						
11:26 AM	16.7	0.4	782.8	6.84	-31.1	6.2	
11:29 AM	16.8	0.2	767.6	6.84	-19.9	5.8	
11:32 AM	16.6	0.1	593.7	6.63	-24.2	17.4	
11:35 AM	16.7	0.1	321.6	6.38	-10.8	28.6	
11:38 AM	17.1	0.3	209.1	6.29	9.8	37.5	
11:41 AM	17.1	0.4	193.1	6.23	24.5	50.8	
11:44 AM	17.1	0.5	188.8	6.21	32.5	44.4	
	Parameters stabilized, sample collected.						
Quantity of Water Removed from Well (liters): 3.8							
Was well pumped/bailed dry? No							
Total Amount of Time Purged (minutes:seconds): 21:00							
Average Purge Rate (mL/min): 180.95							
D. WELL MAINTENANCE							
Does the well require any future maintenance?				No			
If yes, explain:							
Additional Comments:	Color: Cloudy with light yellow tint Odor: Sulfur						

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-29	Date: 7/29/2025
Gradient: Up	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	20.5
Initial Static Water Level (feet):	11.41
Initial Groundwater Elevation (ft-amsl):	768.88
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)	
11:51 AM	Purging start time.						
11:54 AM	19.1	5.3	449.4	6.53	201.5	11.8	
11:57 AM	19.0	5.3	447.7	6.54	208.9	17.0	
12:00 PM	19.0	5.2	462.3	6.55	215.3	25.6	
12:03 PM	19.2	5.2	497.7	6.58	220.3	29.3	
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

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-36	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.5
Initial Static Water Level (feet):	6.48
Initial Groundwater Elevation (ft-amsl):	690.44
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)	
12:05 PM	Purging start time.						
12:08 PM	16.4	1.0	1378.8	6.40	95.1	6.9	
12:11 PM	16.6	1.2	1365.4	6.45	98.7	3.9	
12:14 PM	16.5	1.1	1362.7	6.46	104.3	5.2	
12:17 PM	16.7	0.9	1362.2	6.46	108.8	4.9	
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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-37	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	8.7
Initial Static Water Level (feet):	4.41
Initial Groundwater Elevation (ft-amsl):	710.75
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)	
10:44 AM	Purging start time.						
10:47 AM	22.3	2.0	357.8	6.46	-11.7	20.4	
10:50 AM	23.7	3.7	286.3	6.47	28.8	12.5	
10:53 AM	24.3	4.1	280.2	6.46	67.1	7.1	
10:56 AM	24.4	4.1	277.9	6.45	99.9	4.8	
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: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-38	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	29.7
Initial Static Water Level (feet):	15.70
Initial Groundwater Elevation (ft-amsl):	725.20
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)	
1:46 PM	Purging start time.						
1:49 PM	17.9	0.4	5425.2	6.21	-36.2	8.9	
1:52 PM	17.1	0.2	5505.7	6.23	-44.2	7.1	
1:55 PM	16.6	0.1	5493.0	6.23	-47.0	4.7	
1:58 PM	16.6	<0.1	5517.4	6.24	-50.0	4.6	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: Sulfur/Landfill

FORM FOR GROUNDWATER SAMPLING

Project: Muscatine County Sanitary Landfill	
Monitoring Well/Piezometer ID: MW-39	Date: 7/30/2025
Gradient: Down	Sampler: Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.5
Initial Static Water Level (feet):	4.80
Initial Groundwater Elevation (ft-amsl):	751.22
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)	
1:05 PM	Purging start time.						
1:08 PM	17.4	0.4	1092.0	6.57	-31.7	16.7	
1:11 PM	16.6	0.1	1055.8	6.57	-35.2	32.4	
1:14 PM	16.7	0.1	1031.9	6.57	-41.5	38.4	
1:17 PM	16.2	<0.1	990.4	6.58	-47.5	46.4	
Parameters stabilized, sample collected.							

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

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color: Clear Odor: Sulfur

Appendix B-1
Laboratory Analytical Data Sheets

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

Muscatine County SLF 1st 2025 Bracketing
Muscatine County Sanitary Landfill

JOB NUMBER

310-302991-1

Eurofins Cedar Falls

Job Notes

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Authorization



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Case Narrative

Client: SCS Engineers
Project: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1

Job ID: 310-302991-1

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Job Narrative 310-302991-1

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

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

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

Receipt

The samples were received on 3/28/2025 4:35 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 1.1°C.

GC/MS VOA

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

Metals

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

General Chemistry

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

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Sample Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-302991-1	MW-30	Water	03/27/25 08:31	03/28/25 16:35
310-302991-2	MW-31	Water	03/26/25 14:46	03/28/25 16:35
310-302991-3	MW-33	Water	03/27/25 09:36	03/28/25 16:35
310-302991-4	MW-34	Water	03/27/25 10:16	03/28/25 16:35
310-302991-5	MW-35	Water	03/27/25 08:56	03/28/25 16:35
310-302991-6	MW-46	Water	03/26/25 17:21	03/28/25 16:35
310-302991-7	MW-51	Water	03/26/25 12:53	03/28/25 16:35
310-302991-8	MW-56	Water	03/26/25 12:14	03/28/25 16:35
310-302991-9	MW-57	Water	03/26/25 11:19	03/28/25 16:35
310-302991-10	Trip Blank	Water	03/26/25 00:00	03/28/25 16:35

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-30

Lab Sample ID: 310-302991-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	2.96		1.00	0.180	ug/L	1		8260D	Total/NA

Client Sample ID: MW-31

Lab Sample ID: 310-302991-2

No Detections.

Client Sample ID: MW-33

Lab Sample ID: 310-302991-3

No Detections.

Client Sample ID: MW-34

Lab Sample ID: 310-302991-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.574		0.500	0.220	ug/L	1		8260D	Total/NA

Client Sample ID: MW-35

Lab Sample ID: 310-302991-5

No Detections.

Client Sample ID: MW-46

Lab Sample ID: 310-302991-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.537		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	20.0		3.75	2.63	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-51

Lab Sample ID: 310-302991-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	1.16		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.45	J	6.82	4.77	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-56

Lab Sample ID: 310-302991-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.693		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	9.05		3.57	2.50	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-57

Lab Sample ID: 310-302991-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0492		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	58.0		7.50	5.25	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-302991-10

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-30

Lab Sample ID: 310-302991-1

Date Collected: 03/27/25 08:31

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	2.96		1.00	0.180	ug/L			04/02/25 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		73 - 130		04/02/25 02:30	1
4-Bromofluorobenzene (Surr)	97		80 - 120		04/02/25 02:30	1
Toluene-d8 (Surr)	92		80 - 120		04/02/25 02:30	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-31

Lab Sample ID: 310-302991-2

Date Collected: 03/26/25 14:46

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		73 - 130					04/01/25 17:03	1
4-Bromofluorobenzene (Surr)	101		80 - 120					04/01/25 17:03	1
Toluene-d8 (Surr)	103		80 - 120					04/01/25 17:03	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-33

Lab Sample ID: 310-302991-3

Date Collected: 03/27/25 09:36

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			04/02/25 02:53	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/02/25 02:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		73 - 130					04/02/25 02:53	1
4-Bromofluorobenzene (Surr)	97		80 - 120					04/02/25 02:53	1
Toluene-d8 (Surr)	92		80 - 120					04/02/25 02:53	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-34

Lab Sample ID: 310-302991-4

Date Collected: 03/27/25 10:16

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.574		0.500	0.220	ug/L			04/02/25 03:16	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/02/25 03:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		73 - 130					04/02/25 03:16	1
4-Bromofluorobenzene (Surr)	98		80 - 120					04/02/25 03:16	1
Toluene-d8 (Surr)	92		80 - 120					04/02/25 03:16	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-35

Lab Sample ID: 310-302991-5

Date Collected: 03/27/25 08:56

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/02/25 03:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		73 - 130					04/02/25 03:39	1
4-Bromofluorobenzene (Surr)	98		80 - 120					04/02/25 03:39	1
Toluene-d8 (Surr)	92		80 - 120					04/02/25 03:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-46

Lab Sample ID: 310-302991-6

Date Collected: 03/26/25 17:21

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.537		0.00200	0.000660	mg/L		04/03/25 09:00	04/04/25 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	20.0		3.75	2.63	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-51

Lab Sample ID: 310-302991-7

Date Collected: 03/26/25 12:53

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	1.16		0.00200	0.000660	mg/L		04/03/25 09:00	04/04/25 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	5.45	J	6.82	4.77	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-56

Lab Sample ID: 310-302991-8

Date Collected: 03/26/25 12:14

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.693		0.00200	0.000660	mg/L		04/03/25 09:00	04/04/25 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	9.05		3.57	2.50	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-57

Lab Sample ID: 310-302991-9

Date Collected: 03/26/25 11:19

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.0492		0.00200	0.000660	mg/L		04/03/25 09:00	04/04/25 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	58.0		7.50	5.25	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank

Lab Sample ID: 310-302991-10

Date Collected: 03/26/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 11:30	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 11:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	90		73 - 130					04/01/25 11:30	1
4-Bromofluorobenzene (Surr)	109		80 - 120					04/01/25 11:30	1
Toluene-d8 (Surr)	101		80 - 120					04/01/25 11:30	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Qualifiers

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: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (73-130)	BFB (80-120)	TOL (80-120)
310-302991-1	MW-30	110	97	92
310-302991-2	MW-31	98	101	103
310-302991-3	MW-33	109	97	92
310-302991-4	MW-34	110	98	92
310-302991-5	MW-35	109	98	92
310-302991-10	Trip Blank	90	109	101
LCS 310-450240/6	Lab Control Sample	94	99	104
LCS 310-450240/7	Lab Control Sample	98	104	101
LCS 310-450356/7	Lab Control Sample	104	97	94
LCS 310-450356/8	Lab Control Sample	109	98	93
MB 310-450240/5	Method Blank	96	102	103
MB 310-450356/6	Method Blank	110	98	93

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-450240/5

Matrix: Water

Analysis Batch: 450240

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			04/01/25 09:39	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 09:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		73 - 130					04/01/25 09:39	1
4-Bromofluorobenzene (Surr)	102		80 - 120					04/01/25 09:39	1
Toluene-d8 (Surr)	103		80 - 120					04/01/25 09:39	1

Lab Sample ID: LCS 310-450240/6

Matrix: Water

Analysis Batch: 450240

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	18.33		ug/L		92	72 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	94		73 - 130				
4-Bromofluorobenzene (Surr)	99		80 - 120				
Toluene-d8 (Surr)	104		80 - 120				

Lab Sample ID: LCS 310-450240/7

Matrix: Water

Analysis Batch: 450240

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	20.71		ug/L		104	56 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	98		73 - 130				
4-Bromofluorobenzene (Surr)	104		80 - 120				
Toluene-d8 (Surr)	101		80 - 120				

Lab Sample ID: MB 310-450356/6

Matrix: Water

Analysis Batch: 450356

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			04/02/25 00:13	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/02/25 00:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		73 - 130					04/02/25 00:13	1
4-Bromofluorobenzene (Surr)	98		80 - 120					04/02/25 00:13	1
Toluene-d8 (Surr)	93		80 - 120					04/02/25 00:13	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450356/7

Matrix: Water

Analysis Batch: 450356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	22.46		ug/L		112	72 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	104		73 - 130				
4-Bromofluorobenzene (Surr)	97		80 - 120				
Toluene-d8 (Surr)	94		80 - 120				

Lab Sample ID: LCS 310-450356/8

Matrix: Water

Analysis Batch: 450356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	24.65		ug/L		123	56 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Dibromofluoromethane (Surr)	109		73 - 130				
4-Bromofluorobenzene (Surr)	98		80 - 120				
Toluene-d8 (Surr)	93		80 - 120				

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 310-450499/2-A

Matrix: Water

Analysis Batch: 450798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450499

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.1029		mg/L		103	80 - 120

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

Lab Sample ID: MB 310-450489/1

Matrix: Water

Analysis Batch: 450489

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			04/02/25 12:37	1

Lab Sample ID: LCS 310-450489/2

Matrix: Water

Analysis Batch: 450489

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	90.00		mg/L		90	81 - 116

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

GC/MS VOA

Analysis Batch: 450240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-2	MW-31	Total/NA	Water	8260D	
310-302991-10	Trip Blank	Total/NA	Water	8260D	
MB 310-450240/5	Method Blank	Total/NA	Water	8260D	
LCS 310-450240/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-450240/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 450356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-1	MW-30	Total/NA	Water	8260D	
310-302991-3	MW-33	Total/NA	Water	8260D	
310-302991-4	MW-34	Total/NA	Water	8260D	
310-302991-5	MW-35	Total/NA	Water	8260D	
MB 310-450356/6	Method Blank	Total/NA	Water	8260D	
LCS 310-450356/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-450356/8	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 450499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-6	MW-46	Total/NA	Water	3005A	
310-302991-7	MW-51	Total/NA	Water	3005A	
310-302991-8	MW-56	Total/NA	Water	3005A	
310-302991-9	MW-57	Total/NA	Water	3005A	
LCS 310-450499/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 450798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-6	MW-46	Total/NA	Water	6020B	450499
310-302991-7	MW-51	Total/NA	Water	6020B	450499
310-302991-8	MW-56	Total/NA	Water	6020B	450499
310-302991-9	MW-57	Total/NA	Water	6020B	450499
LCS 310-450499/2-A	Lab Control Sample	Total/NA	Water	6020B	450499

General Chemistry

Analysis Batch: 450489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-8	MW-56	Total/NA	Water	I-3765-85	
MB 310-450489/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450489/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 450491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302991-6	MW-46	Total/NA	Water	I-3765-85	
310-302991-7	MW-51	Total/NA	Water	I-3765-85	
310-302991-9	MW-57	Total/NA	Water	I-3765-85	
MB 310-450491/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450491/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-30

Lab Sample ID: 310-302991-1

Date Collected: 03/27/25 08:31

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450356	FE5V	EET CF	04/02/25 02:30

Client Sample ID: MW-31

Lab Sample ID: 310-302991-2

Date Collected: 03/26/25 14:46

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450240	FE5V	EET CF	04/01/25 17:03

Client Sample ID: MW-33

Lab Sample ID: 310-302991-3

Date Collected: 03/27/25 09:36

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450356	FE5V	EET CF	04/02/25 02:53

Client Sample ID: MW-34

Lab Sample ID: 310-302991-4

Date Collected: 03/27/25 10:16

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450356	FE5V	EET CF	04/02/25 03:16

Client Sample ID: MW-35

Lab Sample ID: 310-302991-5

Date Collected: 03/27/25 08:56

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450356	FE5V	EET CF	04/02/25 03:39

Client Sample ID: MW-46

Lab Sample ID: 310-302991-6

Date Collected: 03/26/25 17:21

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450499	QTZ5	EET CF	04/03/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 15:26
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-51

Lab Sample ID: 310-302991-7

Date Collected: 03/26/25 12:53

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450499	QTZ5	EET CF	04/03/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 15:28

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-51

Lab Sample ID: 310-302991-7

Date Collected: 03/26/25 12:53

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-56

Lab Sample ID: 310-302991-8

Date Collected: 03/26/25 12:14

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450499	QTZ5	EET CF	04/03/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 15:31
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Client Sample ID: MW-57

Lab Sample ID: 310-302991-9

Date Collected: 03/26/25 11:19

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450499	QTZ5	EET CF	04/03/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 15:33
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: Trip Blank

Lab Sample ID: 310-302991-10

Date Collected: 03/26/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450240	FE5V	EET CF	04/01/25 11:30

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine 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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Bracketing

Job ID: 310-302991-1
SDG: Muscatine 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



Environment Testing
America



310-302991 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SES</u>			
City/State: <u>West Des Moines IA</u>		Project:	
Receipt Information			
Date/Time Received: <u>3/28/25</u> <u>1635</u>		Received By: <u>XB</u>	
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: <u>Z</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.1</u>		Corrected Temp (°C): <u>1.1</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Document CED-P-SAM-FRM45521
Revision 26
Date 27 Jan 2022

Eurofins Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

TestAmerica Des Moines SC
2 -
eurofins

Client Information		Sampler		Lab PM	Carrier Tracking No(s)		COC No:
Client Contact: Nathan Oht		Miller, Samuel		Miller, Samuel	State of Origin:		310-104410-27799 1
Company SCS Engineers		Phone: 315-631-0778		E-Mail: Samuel.Miller@et.eurofins.com	Page: Page 1 of 1		Job #:
Address: 1890 All State Court, Suite 100 City: West Des Moines State, Zip: IA, 50265 Phone: 319-331-8613(Tel) Email: noht@scsengineers.com Project Name: 1st 2025 Bracketing Site: Muscatine County Sanitary Landfill		Due Date Requested:		Analysis Requested		Preservation Codes:	
TAT Requested (days):		Compliance Project: ☐ Yes ☐ No		PO #: 27223255 25		WO #:	
Project #: 31006335		SSOW#:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=other)	Preservation Code:	Special Instructions/Note:
MW-30	3/27/25	8:31	Water				
MW-31	3/26/25	14:46	Water				
MW-33	3/27/25	9:36	Water				
MW-34	3/27/25	10:16	Water				
MW-35	3/27/25	8:56	Water				
MW-46	3/26/25	17:21	Water				
MW-51	3/26/25	12:53	Water				
MW-56	3/26/25	12:14	Water				
MW-57	3/26/25	11:19	Water				
Trip Blank							
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements			
Empty Kit Relinquished by		Date:		Time		Method of Shipment	
Relinquished by		Date/Time:		Company		Received by	
Relinquished by		Date/Time:		Company		Received by	
Relinquished by		Date/Time:		Company		Received by	
Custody Seals Intact:		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		Date/Time: 3/28/25 16:35	
☐ Yes ☐ No						Company	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-302991-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 302991

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/14/2025 2:45:26 PM

JOB DESCRIPTION

Muscatine County SLF 1st 2025 Semi-Annual Sampling
Muscatine County Sanitary Landfill

JOB NUMBER

310-302994-1

Eurofins Cedar Falls

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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4/14/2025 2:45:26 PM

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



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Case Narrative

Client: SCS Engineers
Project: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1

Job ID: 310-302994-1

Eurofins Cedar Falls

Job Narrative 310-302994-1

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

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

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

Receipt

The samples were received on 3/28/2025 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 5.0°C, 5.1°C, 5.9°C, 10.0°C, 11.2°C, 13.1°C and 13.3°C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: MW-49BG (310-302994-1), MW-50BG (310-302994-2), MW-2 (310-302994-3), MW-4 (310-302994-4), MW-9 (310-302994-5), MW-10A (310-302994-6), MW-11 (310-302994-7), MW-12R (310-302994-8), MW-13 (310-302994-9), MW-20 (310-302994-10), MW-21 (310-302994-11), MW-22 (310-302994-12), MW-23 (310-302994-13), MW-24 (310-302994-14), MW-25 (310-302994-15), MW-26 (310-302994-16), MW-36 (310-302994-17), MW-37 (310-302994-18), MW-38 (310-302994-19), MW-39 (310-302994-20), MW-D1 (310-302994-21), MW-D2 (310-302994-22), Trip Blank 1 (310-302994-23), Trip Blank 2 (310-302994-24), Trip Blank 3 (310-302994-25), Trip Blank 4 (310-302994-26), Trip Blank 5 (310-302994-27), Trip Blank 6 (310-302994-28) and Trip Blank 7 (310-302994-29). This does not meet regulatory requirements.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-450265 recovered above the upper control limit for Vinyl chloride (21.4%D) and Trichlorofluoromethane (27.8%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-450265/4).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-450214 recovered above the upper control limit for Methyl methacrylate (23.5%D) and 2,2-Dichloropropane (30.8%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-450214/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-450214 recovered above the upper control limit for Dichlorodifluoromethane (26.0% and Trichlorofluoromethane (21.8%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-450214/4).

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 310-450214 was outside the method criteria for the following analyte(s): Chloromethane (-26.8%D) and Bromomethane (-29.1%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

GC/MS Semi VOA

Method 8270E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-450191. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8270E: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-450191 and analytical batch 310-451185 recovered outside control limits for the following analytes: Kepone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Eurofins Cedar Falls

Case Narrative

Client: SCS Engineers
Project: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1

Job ID: 310-302994-1 (Continued)

Eurofins Cedar Falls

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 310-450191 and analytical batch 310-451185 recovered outside control limits for the following analyte(s): 1,4-phenylenediamine. 1,4-phenylenediamine have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-450191 and analytical batch 310-451185 recovered outside control limits for the following analytes: 1,4-phenylenediamine, 3,3'-Dimethylbenzidine, Hexachloropropene, Kepone, Methapyrilene, N-Nitrosomethylethylamine and Pentachlorobenzene.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-450191 and analytical batch 310-451374 recovered outside control limits for the following analytes: 3,3'-Dimethylbenzidine.

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

GC Semi VOA

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

Herbicides

Method 8151A: The following samples were analyzed outside of analytical holding time due to prepared out of holding time: MW-2 (310-302994-3), MW-11 (310-302994-7) and MW-12R (310-302994-8).

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

PCBs

Method 8082A: Surrogate recovery for the following samples were outside the upper control limit: MW-2 (310-302994-3), MW-10A (310-302994-6), MW-11 (310-302994-7), MW-22 (310-302994-12), MW-24 (310-302994-14), MW-25 (310-302994-15), (310-302994-R-3-A MS) and (310-302994-R-3-B MSD). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 310-450201 and analytical batch 310-450758 recovered outside control limits for the following analytes: PCB-1016 and PCB-1260. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8082A: The surrogate recovery for the blank and LCS associated with preparation batch 310-450201 and analytical batch 310-450758 was outside the upper control limits.

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

Pesticides

Method 8081B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 310-450201 and analytical batch 310-450755 recovered outside control limits for the following analytes: Dieldrin, Endosulfan sulfate, Endrin, Heptachlor epoxide and Methoxychlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The surrogate recovery for the blank and LCS associated with preparation batch 310-449979 and 310-450201 and analytical batch 310-450755 was outside the upper control limits.

Method 8081B: Surrogate recovery for the following samples were outside the upper control limit: MW-2 (310-302994-3), MW-10A (310-302994-6), MW-11 (310-302994-7), MW-22 (310-302994-12), MW-24 (310-302994-14), MW-25 (310-302994-15), MW-38 (310-302994-19), MW-39 (310-302994-20), (310-302641-B-2-D) and (310-302641-B-2-I MS). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The continuing calibration verification (CCV) associated with batch 310-450755 recovered above the upper control limit for 4,4'-DDT, Endosulfan sulfate, Endrin and Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Eurofins Cedar Falls

Case Narrative

Client: SCS Engineers
Project: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1

Job ID: 310-302994-1 (Continued)

Eurofins Cedar Falls

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

Metals

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

General Chemistry

Method 9034_Calc: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-2 (310-302994-3) and MW-11 (310-302994-7).

Method 9034_Calc: The following samples were diluted due to the nature of the sample matrix: MW-10A (310-302994-6), MW-11 (310-302994-7) and MW-22 (310-302994-12). Elevated reporting limits (RLs) are provided.

Method I_3765_85: Reanalysis of the following samples were performed outside of the analytical holding time due to LCS failure : MW-11 (310-302994-7), MW-39 (310-302994-20), MW-D1 (310-302994-21) and MW-D2 (310-302994-22).

Method I_3765_85: Reanalysis of the following samples were performed outside of the analytical holding time due to LCS failure : MW-12R (310-302994-8), MW-13 (310-302994-9), MW-26 (310-302994-16) and MW-36 (310-302994-17).

Method I_3765_85: Reanalysis of the following samples were performed outside of the analytical holding time due to LCS failure : MW-50BG (310-302994-2), MW-2 (310-302994-3), MW-20 (310-302994-10), MW-21 (310-302994-11), MW-22 (310-302994-12), MW-24 (310-302994-14) and MW-25 (310-302994-15).

Method I_3765_85: Elevated reporting limits are provided for the following sample due to insufficient sample provided for analysis: MW-36 (310-302994-17).

Method I_3765_85: The laboratory control sample (LCS) for analytical batch 310-450289 recovered outside acceptance limits for Total Suspended Solids. There was insufficient sample to perform a re-analysis; therefore, the data have been reported.

Method I_3765_85: Elevated reporting limits are provided for the following samples due to insufficient sample provided for analysis: MW-50BG (310-302994-2), MW-2 (310-302994-3), MW-9 (310-302994-5), MW-10A (310-302994-6), MW-20 (310-302994-10), MW-21 (310-302994-11), MW-24 (310-302994-14) and MW-25 (310-302994-15).

Method I_3765_85: Elevated reporting limits are provided for the following samples due to insufficient sample provided for analysis: MW-11 (310-302994-7), MW-39 (310-302994-20), MW-D1 (310-302994-21) and MW-D2 (310-302994-22).

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-302994-1	MW-49BG	Water	03/25/25 10:22	03/28/25 16:35
310-302994-2	MW-50BG	Water	03/24/25 15:25	03/28/25 16:35
310-302994-3	MW-2	Water	03/24/25 17:25	03/28/25 16:35
310-302994-4	MW-4	Water	03/26/25 16:31	03/28/25 16:35
310-302994-5	MW-9	Water	03/26/25 08:36	03/28/25 16:35
310-302994-6	MW-10A	Water	03/26/25 18:00	03/28/25 16:35
310-302994-7	MW-11	Water	03/24/25 16:12	03/28/25 16:35
310-302994-8	MW-12R	Water	03/24/25 14:26	03/28/25 16:35
310-302994-9	MW-13	Water	03/25/25 16:58	03/28/25 16:35
310-302994-10	MW-20	Water	03/25/25 11:21	03/28/25 16:35
310-302994-11	MW-21	Water	03/25/25 12:39	03/28/25 16:35
310-302994-12	MW-22	Water	03/25/25 15:48	03/28/25 16:35
310-302994-13	MW-23	Water	03/27/25 12:03	03/28/25 16:35
310-302994-14	MW-24	Water	03/25/25 08:55	03/28/25 16:35
310-302994-15	MW-25	Water	03/25/25 18:34	03/28/25 16:35
310-302994-16	MW-26	Water	03/25/25 14:42	03/28/25 16:35
310-302994-17	MW-36	Water	03/25/25 17:58	03/28/25 16:35
310-302994-18	MW-37	Water	03/26/25 15:20	03/28/25 16:35
310-302994-19	MW-38	Water	03/26/25 10:23	03/28/25 16:35
310-302994-20	MW-39	Water	03/25/25 13:51	03/28/25 16:35
310-302994-21	MW-D1	Water	03/25/25 11:21	03/28/25 16:35
310-302994-22	MW-D2	Water	03/25/25 08:55	03/28/25 16:35
310-302994-23	Trip Blank 1	Water	03/25/25 00:00	03/28/25 16:35
310-302994-24	Trip Blank 2	Water	03/25/25 00:00	03/28/25 16:35
310-302994-25	Trip Blank 3	Water	03/25/25 00:00	03/28/25 16:35
310-302994-26	Trip Blank 4	Water	03/25/25 00:00	03/28/25 16:35
310-302994-27	Trip Blank 5	Water	03/25/25 00:00	03/28/25 16:35
310-302994-28	Trip Blank 6	Water	03/25/25 00:00	03/28/25 16:35
310-302994-29	Trip Blank 7	Water	03/25/25 00:00	03/28/25 16:35

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-49BG

Lab Sample ID: 310-302994-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00292		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	3.19		0.00800	0.00264	mg/L	4		6020B	Total/NA
Cobalt	0.00486		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00385	J	0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	7.87	*-	2.00	1.40	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-50BG

Lab Sample ID: 310-302994-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.164		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000732		0.000500	0.000170	mg/L	1		6020B	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000540	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.286		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00136		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00413	J	0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 310-302994-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00508		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.363		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000276	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	27.5		5.88	4.12	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 310-302994-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00117	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.108		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.140		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0723		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000184	J	0.000500	0.000170	mg/L	1		6020B	Total/NA

Client Sample ID: MW-12R

Lab Sample ID: 310-302994-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.97	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	1.19		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	3.29		1.00	0.400	ug/L	1		8260D	Total/NA
Silvex (2,4,5-TP)	0.232	H	0.0541	0.0238	ug/L	1		8151A	Total/NA
Arsenic	0.0190		0.00200	0.000530	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R (Continued)

Lab Sample ID: 310-302994-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	3.23		0.00800	0.00264	mg/L	4		6020B	Total/NA
Cobalt	0.0110		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0576		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	105	H	15.0	10.5	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-13

Lab Sample ID: 310-302994-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.863	J	1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.362	J	1.00	0.270	ug/L	1		8260D	Total/NA
Benzene	0.288	J	0.500	0.220	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	10.1		1.00	0.210	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.729	J	1.00	0.270	ug/L	1		8260D	Total/NA
Vinyl chloride	1.95		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.00422		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.634		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	18.4	H	5.88	4.12	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-20

Lab Sample ID: 310-302994-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0619		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 310-302994-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0577		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000104	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Chromium	0.00189	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.00390	J	0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	8.44	J	10.2	5.71	ug/L	1		8270E	Total/NA
Barium	0.275		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-23

Lab Sample ID: 310-302994-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.508	J	1.00	0.220	ug/L	1		8260D	Total/NA
1,4-Dichlorobenzene	0.492	J	1.00	0.230	ug/L	1		8260D	Total/NA
Benzene	3.01		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	11.1		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	2.22	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.39		1.00	0.210	ug/L	1		8260D	Total/NA
Arsenic	0.0346		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.482		0.00200	0.000660	mg/L	1		6020B	Total/NA
Chromium	0.00875		0.00500	0.00180	mg/L	1		6020B	Total/NA
Cobalt	0.00500		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000625		0.000500	0.000330	mg/L	1		6020B	Total/NA
Nickel	0.0104		0.00500	0.00230	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23 (Continued)

Lab Sample ID: 310-302994-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	0.00231	J	0.00500	0.00170	mg/L	1		6020B	Total/NA
Total Suspended Solids	66.0		15.0	10.5	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.236		0.00200	0.000660	mg/L	1		6020B	Total/NA
Selenium	0.00264	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.238	J	1.00	0.220	ug/L	1		8260D	Total/NA
Barium	0.297		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-26

Lab Sample ID: 310-302994-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.127		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.49	J H	5.88	4.12	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-36

Lab Sample ID: 310-302994-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.00101	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Barium	0.349		0.00200	0.000660	mg/L	1		6020B	Total/NA
Nickel	0.00762		0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-37

Lab Sample ID: 310-302994-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00101	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0776		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000172	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.10	J	5.88	4.12	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-38

Lab Sample ID: 310-302994-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.828	J	1.00	0.220	ug/L	1		8260D	Total/NA
1,4-Dichlorobenzene	2.22		1.00	0.230	ug/L	1		8260D	Total/NA
Acetone	11.6		10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	5.64		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	19.1		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	2.22	J	4.00	0.790	ug/L	1		8260D	Total/NA
Xylenes, Total	0.898	J	3.00	0.400	ug/L	1		8260D	Total/NA
Arsenic	0.0361		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	16.5		0.0200	0.00660	mg/L	10		6020B	Total/NA
Chromium	0.00200	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Cobalt	0.0357		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0712		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	85.0		9.38	6.56	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-302994-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.00108	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.00168	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.151		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00105		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00822		0.00500	0.00230	mg/L	1		6020B	Total/NA
Selenium	0.00987		0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: MW-D1

Lab Sample ID: 310-302994-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0624		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000186	J	0.000500	0.000170	mg/L	1		6020B	Total/NA

Client Sample ID: MW-D2

Lab Sample ID: 310-302994-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.251		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000198	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Selenium	0.00260	J	0.00500	0.00140	mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-302994-23

No Detections.

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-302994-24

No Detections.

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-302994-25

No Detections.

Client Sample ID: Trip Blank 4

Lab Sample ID: 310-302994-26

No Detections.

Client Sample ID: Trip Blank 5

Lab Sample ID: 310-302994-27

No Detections.

Client Sample ID: Trip Blank 6

Lab Sample ID: 310-302994-28

No Detections.

Client Sample ID: Trip Blank 7

Lab Sample ID: 310-302994-29

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-49BG

Lab Sample ID: 310-302994-1

Date Collected: 03/25/25 10:22

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00292		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:37	1
Barium	3.19		0.00800	0.00264	mg/L		04/02/25 09:00	04/08/25 12:13	4
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:37	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:37	1
Cobalt	0.00486		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:37	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:37	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:37	1
Nickel	0.00385 J		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:37	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	7.87	*	2.00	1.40	mg/L			03/31/25 23:05	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-50BG

Lab Sample ID: 310-302994-2

Date Collected: 03/24/25 15:25

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:39	1
Barium	0.164		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:39	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:39	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:39	1
Cobalt	0.000732		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:39	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:39	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:39	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:39	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<7.50	H	7.50	5.25	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 15:13	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 15:13	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 15:13	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 15:13	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 15:13	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 15:13	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 15:13	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 15:13	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 15:13	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 15:13	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 15:13	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 15:13	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 15:13	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 15:13	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 15:13	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 15:13	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 15:13	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 15:13	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 15:13	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 15:13	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 15:13	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 15:13	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 15:13	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 15:13	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 15:13	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 15:13	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 15:13	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 15:13	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 15:13	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 15:13	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 15:13	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 15:13	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 15:13	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 15:13	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 15:13	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 15:13	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 15:13	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 15:13	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 15:13	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 15:13	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 15:13	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 15:13	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 15:13	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 15:13	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 15:13	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 15:13	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 15:13	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 15:13	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 15:13	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 15:13	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 15:13	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 15:13	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 15:13	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 15:13	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 15:13	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 15:13	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 15:13	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 15:13	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 15:13	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 15:13	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 15:13	1
Toluene-d8 (Surr)	95		80 - 120		03/31/25 15:13	1
4-Bromofluorobenzene (Surr)	99		80 - 120		03/31/25 15:13	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:28	1
1,3,5-Trinitrobenzene	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:03	1
1,3-Dinitrobenzene	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/02/25 02:28	1
1,4-Naphthoquinone	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:03	1
1,4-phenylenediamine	<10.4	*- *1	10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:03	1
1-Naphthylamine	<10.4		10.4	2.60	ug/L		03/31/25 09:00	04/10/25 16:03	1
2,3,4,6-Tetrachlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4,5-Trichlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4,6-Trichlorophenol	<10.4		10.4	5.21	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4-Dichlorophenol	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4-Dimethylphenol	<10.4		10.4	0.604	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4-Dinitrophenol	<20.8		20.8	13.5	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,4-Dinitrotoluene	<10.4		10.4	6.67	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,6-Dichlorophenol	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:28	1
2,6-Dinitrotoluene	<10.4		10.4	0.542	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Acetylaminofluorene	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:03	1
2-Chloronaphthalene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Chlorophenol	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Methylnaphthalene	<10.4		10.4	0.615	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Methylphenol	<10.4		10.4	0.677	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Naphthylamine	<10.4		10.4	2.19	ug/L		03/31/25 09:00	04/10/25 16:03	1
2-Nitroaniline	<10.4		10.4	6.15	ug/L		03/31/25 09:00	04/02/25 02:28	1
2-Nitrophenol	<10.4		10.4	7.08	ug/L		03/31/25 09:00	04/02/25 02:28	1
3,3'-Dichlorobenzidine	<10.4		10.4	1.46	ug/L		03/31/25 09:00	04/02/25 02:28	1
3,3'-Dimethylbenzidine	<10.4	*1	10.4	1.56	ug/L		03/31/25 09:00	04/11/25 13:44	1
3-Methylcholanthrene	<10.4		10.4	0.333	ug/L		03/31/25 09:00	04/10/25 16:03	1
3-Nitroaniline	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/02/25 02:28	1
4,6-Dinitro-2-methylphenol	<10.4		10.4	7.19	ug/L		03/31/25 09:00	04/02/25 02:28	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:03	1
4-Bromophenyl phenyl ether	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:28	1
4-Chloro-3-methylphenol	<10.4		10.4	0.875	ug/L		03/31/25 09:00	04/02/25 02:28	1
4-Chloroaniline	<10.4		10.4	0.646	ug/L		03/31/25 09:00	04/02/25 02:28	1
4-Chlorophenyl phenyl ether	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:28	1
Methylphenol, 3 & 4	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:28	1
4-Nitroaniline	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/02/25 02:28	1
4-Nitrophenol	<10.4		10.4	7.92	ug/L		03/31/25 09:00	04/02/25 02:28	1
5-Nitro-o-toluidine	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:03	1
7,12-Dimethylbenz(a)anthracene	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:03	1
Acenaphthene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/02/25 02:28	1
Acenaphthylene	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/02/25 02:28	1
Acetophenone	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:28	1
Anthracene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzo[a]anthracene	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzo[a]pyrene	<10.4		10.4	8.44	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzo[b]fluoranthene	<10.4		10.4	5.10	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzo[g,h,i]perylene	<10.4		10.4	6.56	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzo[k]fluoranthene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/02/25 02:28	1
Benzyl alcohol	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/02/25 02:28	1
Bis(2-chloroethoxy)methane	<10.4		10.4	0.792	ug/L		03/31/25 09:00	04/02/25 02:28	1
Bis(2-chloroethyl)ether	<10.4		10.4	0.854	ug/L		03/31/25 09:00	04/02/25 02:28	1
bis (2-chloroisopropyl) ether	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:28	1
Bis(2-ethylhexyl) phthalate	<10.4		10.4	5.73	ug/L		03/31/25 09:00	04/02/25 02:28	1
Butyl benzyl phthalate	<10.4		10.4	5.63	ug/L		03/31/25 09:00	04/02/25 02:28	1
Chlorobenzilate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:03	1
Chrysene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/02/25 02:28	1
Diallate	<10.4		10.4	4.17	ug/L		03/31/25 09:00	04/10/25 16:03	1
Dibenzo(a,h)anthracene	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/02/25 02:28	1
Dibenzofuran	<10.4		10.4	0.771	ug/L		03/31/25 09:00	04/02/25 02:28	1
Diethyl phthalate	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/02/25 02:28	1
Dimethoate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:03	1
Dimethyl phthalate	<10.4		10.4	1.04	ug/L		03/31/25 09:00	04/02/25 02:28	1
Di-n-butyl phthalate	<10.4		10.4	5.83	ug/L		03/31/25 09:00	04/02/25 02:28	1
Di-n-octyl phthalate	<20.8		20.8	7.29	ug/L		03/31/25 09:00	04/02/25 02:28	1
Dinoseb	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 16:03	1
Diphenylamine	<10.4		10.4	6.25	ug/L		03/31/25 09:00	04/02/25 02:28	1
Disulfoton	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 16:03	1
Ethyl methanesulfonate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:03	1
Ethyl Parathion	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:03	1
Famphur	<10.4		10.4	3.96	ug/L		03/31/25 09:00	04/14/25 07:29	1
Fluoranthene	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/02/25 02:28	1
Fluorene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:28	1
Hexachlorobenzene	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:28	1
Hexachlorobutadiene	<10.4		10.4	0.896	ug/L		03/31/25 09:00	04/02/25 02:28	1
Hexachlorocyclopentadiene	<10.4		10.4	5.31	ug/L		03/31/25 09:00	04/02/25 02:28	1
Hexachloroethane	<10.4		10.4	1.01	ug/L		03/31/25 09:00	04/02/25 02:28	1
Hexachloropropene	<10.4	*1	10.4	2.71	ug/L		03/31/25 09:00	04/10/25 16:03	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.4		10.4	4.38	ug/L		03/31/25 09:00	04/02/25 02:28	1
Isodrin	<10.4		10.4	4.90	ug/L		03/31/25 09:00	04/10/25 16:03	1
Isophorone	<10.4		10.4	0.969	ug/L		03/31/25 09:00	04/02/25 02:28	1
Isosafrole	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:03	1
Kepone	<10.4	*+ *1	10.4	1.04	ug/L		03/31/25 09:00	04/10/25 16:03	1
Methapyrilene	<10.4	*1	10.4	0.792	ug/L		03/31/25 09:00	04/10/25 16:03	1
Methyl methanesulfonate	<10.4		10.4	3.44	ug/L		03/31/25 09:00	04/10/25 16:03	1
Methyl parathion	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:03	1
Nitrobenzene	<10.4		10.4	0.833	ug/L		03/31/25 09:00	04/02/25 02:28	1
N-Nitrosodiethylamine	<10.4		10.4	3.54	ug/L		03/31/25 09:00	04/10/25 16:03	1
N-Nitrosodimethylamine	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/02/25 02:28	1
N-Nitrosodi-n-butylamine	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/10/25 16:03	1
N-Nitrosodi-n-propylamine	<10.4		10.4	0.958	ug/L		03/31/25 09:00	04/02/25 02:28	1
N-Nitrosodiphenylamine	<10.4		10.4	0.781	ug/L		03/31/25 09:00	04/02/25 02:28	1
N-Nitrosomethylethylamine	<10.4	*1	10.4	5.10	ug/L		03/31/25 09:00	04/10/25 16:03	1
N-Nitrosopiperidine	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:03	1
N-Nitrosopyrrolidine	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:03	1
o,o',o"-Triethylphosphorothioate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 16:03	1
o-Toluidine	<10.4		10.4	3.02	ug/L		03/31/25 09:00	04/10/25 16:03	1
p-Dimethylamino azobenzene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:03	1
Pentachlorobenzene	<10.4	*1	10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:03	1
Pentachloronitrobenzene	<10.4		10.4	6.04	ug/L		03/31/25 09:00	04/10/25 16:03	1
Pentachlorophenol	<10.4		10.4	10.0	ug/L		03/31/25 09:00	04/02/25 02:28	1
Phenacetin	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:03	1
Phenanthrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:28	1
Phenol	<10.4		10.4	1.15	ug/L		03/31/25 09:00	04/02/25 02:28	1
Phorate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 16:03	1
Pronamide	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:03	1
Pyrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:28	1
Safrole	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:03	1
Thionazin	<10.4		10.4	3.65	ug/L		03/31/25 09:00	04/10/25 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	56		25 - 110	03/31/25 09:00	04/02/25 02:28	1
2-Fluorophenol (Surr)	49		25 - 110	03/31/25 09:00	04/10/25 16:03	1
Phenol-d5 (Surr)	52		21 - 110	03/31/25 09:00	04/02/25 02:28	1
Phenol-d5 (Surr)	48		21 - 110	03/31/25 09:00	04/10/25 16:03	1
Nitrobenzene-d5 (Surr)	76		45 - 129	03/31/25 09:00	04/02/25 02:28	1
Nitrobenzene-d5 (Surr)	74		45 - 129	03/31/25 09:00	04/10/25 16:03	1
2-Fluorobiphenyl (Surr)	70		39 - 118	03/31/25 09:00	04/02/25 02:28	1
2-Fluorobiphenyl (Surr)	60		39 - 118	03/31/25 09:00	04/10/25 16:03	1
2,4,6-Tribromophenol (Surr)	69		27 - 136	03/31/25 09:00	04/02/25 02:28	1
2,4,6-Tribromophenol (Surr)	69		27 - 136	03/31/25 09:00	04/10/25 16:03	1
Terphenyl-d14 (Surr)	83		12 - 144	03/31/25 09:00	04/02/25 02:28	1
Terphenyl-d14 (Surr)	74		12 - 144	03/31/25 09:00	04/10/25 16:03	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 11:43	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 11:43	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0914		0.0914	0.0228	ug/L		03/31/25 09:52	04/04/25 17:20	1
4,4'-DDE	<0.0914		0.0914	0.0274	ug/L		03/31/25 09:52	04/04/25 17:20	1
4,4'-DDT	<0.0914		0.0914	0.0183	ug/L		03/31/25 09:52	04/04/25 17:20	1
Aldrin	<0.0914		0.0914	0.0201	ug/L		03/31/25 09:52	04/04/25 17:20	1
alpha-BHC	<0.0914		0.0914	0.00914	ug/L		03/31/25 09:52	04/04/25 17:20	1
beta-BHC	<0.0914		0.0914	0.0384	ug/L		03/31/25 09:52	04/04/25 17:20	1
Chlordane (technical)	<1.83		1.83	0.356	ug/L		03/31/25 09:52	04/04/25 17:20	1
delta-BHC	<0.0914		0.0914	0.0292	ug/L		03/31/25 09:52	04/04/25 17:20	1
Dieldrin	<0.0914	+	0.0914	0.0192	ug/L		03/31/25 09:52	04/04/25 17:20	1
Endosulfan I	<0.0914		0.0914	0.0256	ug/L		03/31/25 09:52	04/04/25 17:20	1
Endosulfan II	<0.0914		0.0914	0.0238	ug/L		03/31/25 09:52	04/04/25 17:20	1
Endosulfan sulfate	<0.0914	+	0.0914	0.0164	ug/L		03/31/25 09:52	04/04/25 17:20	1
Endrin	<0.0914	+	0.0914	0.0256	ug/L		03/31/25 09:52	04/04/25 17:20	1
Endrin aldehyde	<0.0914		0.0914	0.0247	ug/L		03/31/25 09:52	04/04/25 17:20	1
gamma-BHC (Lindane)	<0.0914		0.0914	0.00914	ug/L		03/31/25 09:52	04/04/25 17:20	1
Heptachlor	<0.0914		0.0914	0.0210	ug/L		03/31/25 09:52	04/04/25 17:20	1
Heptachlor epoxide	<0.0914	+	0.0914	0.0292	ug/L		03/31/25 09:52	04/04/25 17:20	1
Methoxychlor	<0.0914	+	0.0914	0.0292	ug/L		03/31/25 09:52	04/04/25 17:20	1
Toxaphene	<1.83		1.83	0.914	ug/L		03/31/25 09:52	04/04/25 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	152	S1+	10 - 136	03/31/25 09:52	04/04/25 17:20	1
Tetrachloro-m-xylene	87		10 - 130	03/31/25 09:52	04/04/25 17:20	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.83	+	1.83	0.749	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1221	<1.83		1.83	0.749	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1232	<1.83		1.83	0.749	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1242	<1.83		1.83	0.749	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1248	<1.83		1.83	0.631	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1254	<1.83		1.83	0.631	ug/L		03/31/25 09:52	04/04/25 17:20	1
PCB-1260	<1.83	F1 +	1.83	0.631	ug/L		03/31/25 09:52	04/04/25 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	152	S1+	10 - 136	03/31/25 09:52	04/04/25 17:20	1
Tetrachloro-m-xylene	87		10 - 130	03/31/25 09:52	04/04/25 17:20	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.162	H	0.162	0.0702	ug/L		04/04/25 14:48	04/08/25 01:17	1
Silvex (2,4,5-TP)	<0.0540	H	0.0540	0.0238	ug/L		04/04/25 14:48	04/08/25 01:17	1
2,4-D	<0.648	H	0.648	0.270	ug/L		04/04/25 14:48	04/08/25 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	75		34 - 142	04/04/25 14:48	04/08/25 01:17	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	69		34 - 142	04/04/25 14:48	04/08/25 01:17	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		04/02/25 09:00	04/07/25 16:05	1
Arsenic	0.000540	J	0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:05	1
Barium	0.286		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:05	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:05	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:05	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:05	1
Cobalt	0.00136		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:05	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:05	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:05	1
Nickel	0.00413	J	0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:05	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:05	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:05	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:05	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 16:05	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:05	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/01/25 10:42	04/03/25 23:09	1
Sulfide (SW846 9034)	<1.00	H	1.00	0.231	mg/L		04/01/25 13:10	04/01/25 14:18	1
Total Suspended Solids (USGS I-3765-85)	<6.12	H	6.12	4.29	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-302994-4

Date Collected: 03/26/25 16:31

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 16:21	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 16:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 16:21	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 16:21	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 16:21	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 16:21	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 16:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 16:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 16:21	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 16:21	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 16:21	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 16:21	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 16:21	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 16:21	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 16:21	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 16:21	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 16:21	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 16:21	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 16:21	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 16:21	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 16:21	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 16:21	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 16:21	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 16:21	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 16:21	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 16:21	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 16:21	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 16:21	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 16:21	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 16:21	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 16:21	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 16:21	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 16:21	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 16:21	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 16:21	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 16:21	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 16:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 16:21	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 16:21	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 16:21	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 16:21	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 16:21	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 16:21	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 16:21	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 16:21	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 16:21	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 16:21	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-302994-4

Date Collected: 03/26/25 16:31

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 16:21	1
Toluene-d8 (Surr)	95		80 - 120		03/31/25 16:21	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 16:21	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		04/02/25 09:00	04/04/25 14:33	1
Arsenic	0.00508		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 14:33	1
Barium	0.363		0.00200	0.000660	mg/L		04/02/25 09:00	04/04/25 14:33	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 12:42	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 14:33	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 14:33	1
Cobalt	0.000276	J	0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 14:33	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 14:33	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 14:33	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 14:33	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/04/25 14:33	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/04/25 14:33	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/04/25 14:33	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/04/25 14:33	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	27.5		5.88	4.12	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-9

Lab Sample ID: 310-302994-5

Date Collected: 03/26/25 08:36

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 16:44	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 16:44	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 16:44	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 16:44	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 16:44	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 16:44	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 16:44	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 16:44	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 16:44	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 16:44	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 16:44	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 16:44	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 16:44	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 16:44	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 16:44	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 16:44	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 16:44	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 16:44	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 16:44	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 16:44	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 16:44	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 16:44	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 16:44	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 16:44	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 16:44	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 16:44	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 16:44	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 16:44	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 16:44	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 16:44	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 16:44	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 16:44	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 16:44	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 16:44	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 16:44	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 16:44	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 16:44	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 16:44	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 16:44	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 16:44	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 16:44	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 16:44	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 16:44	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 16:44	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 16:44	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 16:44	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 16:44	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-9

Lab Sample ID: 310-302994-5

Date Collected: 03/26/25 08:36

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 16:44	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 16:44	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 16:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00117	J	0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:01	1
Barium	0.108		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:01	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:01	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:01	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:01	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:01	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:01	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:01	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.00		6.00	4.20	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 17:07	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 17:07	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 17:07	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 17:07	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 17:07	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 17:07	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 17:07	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 17:07	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 17:07	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 17:07	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 17:07	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 17:07	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 17:07	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 17:07	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 17:07	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 17:07	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 17:07	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 17:07	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 17:07	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 17:07	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 17:07	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 17:07	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 17:07	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 17:07	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 17:07	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 17:07	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 17:07	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 17:07	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 17:07	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 17:07	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 17:07	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 17:07	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 17:07	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 17:07	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 17:07	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 17:07	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 17:07	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 17:07	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 17:07	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 17:07	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 17:07	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 17:07	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 17:07	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 17:07	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 17:07	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 17:07	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 17:07	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 17:07	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 17:07	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 17:07	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 17:07	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 17:07	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 17:07	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 17:07	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 17:07	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 17:07	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 17:07	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 17:07	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 17:07	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 17:07	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 17:07	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 17:07	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 17:07	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:57	1
1,3,5-Trinitrobenzene	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:29	1
1,3-Dinitrobenzene	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/02/25 02:57	1
1,4-Naphthoquinone	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:29	1
1,4-phenylenediamine	<10.4	*- *1	10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:29	1
1-Naphthylamine	<10.4		10.4	2.60	ug/L		03/31/25 09:00	04/10/25 16:29	1
2,3,4,6-Tetrachlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4,5-Trichlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4,6-Trichlorophenol	<10.4		10.4	5.21	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4-Dichlorophenol	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4-Dimethylphenol	<10.4		10.4	0.604	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4-Dinitrophenol	<20.8		20.8	13.5	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,4-Dinitrotoluene	<10.4		10.4	6.67	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,6-Dichlorophenol	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:57	1
2,6-Dinitrotoluene	<10.4		10.4	0.542	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Acetylaminofluorene	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:29	1
2-Chloronaphthalene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Chlorophenol	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Methylnaphthalene	<10.4		10.4	0.615	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Methylphenol	<10.4		10.4	0.677	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Naphthylamine	<10.4		10.4	2.19	ug/L		03/31/25 09:00	04/10/25 16:29	1
2-Nitroaniline	<10.4		10.4	6.15	ug/L		03/31/25 09:00	04/02/25 02:57	1
2-Nitrophenol	<10.4		10.4	7.08	ug/L		03/31/25 09:00	04/02/25 02:57	1
3,3'-Dichlorobenzidine	<10.4		10.4	1.46	ug/L		03/31/25 09:00	04/02/25 02:57	1
3,3'-Dimethylbenzidine	<10.4	*1	10.4	1.56	ug/L		03/31/25 09:00	04/11/25 14:10	1
3-Methylcholanthrene	<10.4		10.4	0.333	ug/L		03/31/25 09:00	04/10/25 16:29	1
3-Nitroaniline	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/02/25 02:57	1
4,6-Dinitro-2-methylphenol	<10.4		10.4	7.19	ug/L		03/31/25 09:00	04/02/25 02:57	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:29	1
4-Bromophenyl phenyl ether	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:57	1
4-Chloro-3-methylphenol	<10.4		10.4	0.875	ug/L		03/31/25 09:00	04/02/25 02:57	1
4-Chloroaniline	<10.4		10.4	0.646	ug/L		03/31/25 09:00	04/02/25 02:57	1
4-Chlorophenyl phenyl ether	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:57	1
Methylphenol, 3 & 4	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:57	1
4-Nitroaniline	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/02/25 02:57	1
4-Nitrophenol	<10.4		10.4	7.92	ug/L		03/31/25 09:00	04/02/25 02:57	1
5-Nitro-o-toluidine	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:29	1
7,12-Dimethylbenz(a)anthracene	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:29	1
Acenaphthene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/02/25 02:57	1
Acenaphthylene	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/02/25 02:57	1
Acetophenone	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/02/25 02:57	1
Anthracene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzo[a]anthracene	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzo[a]pyrene	<10.4		10.4	8.44	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzo[b]fluoranthene	<10.4		10.4	5.10	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzo[g,h,i]perylene	<10.4		10.4	6.56	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzo[k]fluoranthene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/02/25 02:57	1
Benzyl alcohol	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/02/25 02:57	1
Bis(2-chloroethoxy)methane	<10.4		10.4	0.792	ug/L		03/31/25 09:00	04/02/25 02:57	1
Bis(2-chloroethyl)ether	<10.4		10.4	0.854	ug/L		03/31/25 09:00	04/02/25 02:57	1
bis (2-chloroisopropyl) ether	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/02/25 02:57	1
Bis(2-ethylhexyl) phthalate	<10.4		10.4	5.73	ug/L		03/31/25 09:00	04/02/25 02:57	1
Butyl benzyl phthalate	<10.4		10.4	5.63	ug/L		03/31/25 09:00	04/02/25 02:57	1
Chlorobenzilate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:29	1
Chrysene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/02/25 02:57	1
Diallate	<10.4		10.4	4.17	ug/L		03/31/25 09:00	04/10/25 16:29	1
Dibenzo(a,h)anthracene	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/02/25 02:57	1
Dibenzofuran	<10.4		10.4	0.771	ug/L		03/31/25 09:00	04/02/25 02:57	1
Diethyl phthalate	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/02/25 02:57	1
Dimethoate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:29	1
Dimethyl phthalate	<10.4		10.4	1.04	ug/L		03/31/25 09:00	04/02/25 02:57	1
Di-n-butyl phthalate	<10.4		10.4	5.83	ug/L		03/31/25 09:00	04/02/25 02:57	1
Di-n-octyl phthalate	<20.8		20.8	7.29	ug/L		03/31/25 09:00	04/02/25 02:57	1
Dinoseb	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 16:29	1
Diphenylamine	<10.4		10.4	6.25	ug/L		03/31/25 09:00	04/02/25 02:57	1
Disulfoton	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 16:29	1
Ethyl methanesulfonate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:29	1
Ethyl Parathion	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:29	1
Famphur	<10.4		10.4	3.96	ug/L		03/31/25 09:00	04/14/25 07:48	1
Fluoranthene	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/02/25 02:57	1
Fluorene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:57	1
Hexachlorobenzene	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/02/25 02:57	1
Hexachlorobutadiene	<10.4		10.4	0.896	ug/L		03/31/25 09:00	04/02/25 02:57	1
Hexachlorocyclopentadiene	<10.4		10.4	5.31	ug/L		03/31/25 09:00	04/02/25 02:57	1
Hexachloroethane	<10.4		10.4	1.01	ug/L		03/31/25 09:00	04/02/25 02:57	1
Hexachloropropene	<10.4	*1	10.4	2.71	ug/L		03/31/25 09:00	04/10/25 16:29	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.4		10.4	4.38	ug/L		03/31/25 09:00	04/02/25 02:57	1
Isodrin	<10.4		10.4	4.90	ug/L		03/31/25 09:00	04/10/25 16:29	1
Isophorone	<10.4		10.4	0.969	ug/L		03/31/25 09:00	04/02/25 02:57	1
Isosafrole	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:29	1
Kepone	<10.4	*+ *1	10.4	1.04	ug/L		03/31/25 09:00	04/10/25 16:29	1
Methapyrilene	<10.4	*1	10.4	0.792	ug/L		03/31/25 09:00	04/10/25 16:29	1
Methyl methanesulfonate	<10.4		10.4	3.44	ug/L		03/31/25 09:00	04/10/25 16:29	1
Methyl parathion	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 16:29	1
Nitrobenzene	<10.4		10.4	0.833	ug/L		03/31/25 09:00	04/02/25 02:57	1
N-Nitrosodiethylamine	<10.4		10.4	3.54	ug/L		03/31/25 09:00	04/10/25 16:29	1
N-Nitrosodimethylamine	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/02/25 02:57	1
N-Nitrosodi-n-butylamine	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/10/25 16:29	1
N-Nitrosodi-n-propylamine	<10.4		10.4	0.958	ug/L		03/31/25 09:00	04/02/25 02:57	1
N-Nitrosodiphenylamine	<10.4		10.4	0.781	ug/L		03/31/25 09:00	04/02/25 02:57	1
N-Nitrosomethylethylamine	<10.4	*1	10.4	5.10	ug/L		03/31/25 09:00	04/10/25 16:29	1
N-Nitrosopiperidine	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:29	1
N-Nitrosopyrrolidine	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 16:29	1
o,o',o"-Triethylphosphorothioate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 16:29	1
o-Toluidine	<10.4		10.4	3.02	ug/L		03/31/25 09:00	04/10/25 16:29	1
p-Dimethylamino azobenzene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 16:29	1
Pentachlorobenzene	<10.4	*1	10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:29	1
Pentachloronitrobenzene	<10.4		10.4	6.04	ug/L		03/31/25 09:00	04/10/25 16:29	1
Pentachlorophenol	<10.4		10.4	10.0	ug/L		03/31/25 09:00	04/02/25 02:57	1
Phenacetin	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 16:29	1
Phenanthrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:57	1
Phenol	<10.4		10.4	1.15	ug/L		03/31/25 09:00	04/02/25 02:57	1
Phorate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 16:29	1
Pronamide	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 16:29	1
Pyrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/02/25 02:57	1
Safrole	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 16:29	1
Thionazin	<10.4		10.4	3.65	ug/L		03/31/25 09:00	04/10/25 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	73		25 - 110	03/31/25 09:00	04/02/25 02:57	1
2-Fluorophenol (Surr)	65		25 - 110	03/31/25 09:00	04/10/25 16:29	1
Phenol-d5 (Surr)	69		21 - 110	03/31/25 09:00	04/02/25 02:57	1
Phenol-d5 (Surr)	64		21 - 110	03/31/25 09:00	04/10/25 16:29	1
Nitrobenzene-d5 (Surr)	98		45 - 129	03/31/25 09:00	04/02/25 02:57	1
Nitrobenzene-d5 (Surr)	96		45 - 129	03/31/25 09:00	04/10/25 16:29	1
2-Fluorobiphenyl (Surr)	87		39 - 118	03/31/25 09:00	04/02/25 02:57	1
2-Fluorobiphenyl (Surr)	77		39 - 118	03/31/25 09:00	04/10/25 16:29	1
2,4,6-Tribromophenol (Surr)	94		27 - 136	03/31/25 09:00	04/02/25 02:57	1
2,4,6-Tribromophenol (Surr)	94		27 - 136	03/31/25 09:00	04/10/25 16:29	1
Terphenyl-d14 (Surr)	109		12 - 144	03/31/25 09:00	04/02/25 02:57	1
Terphenyl-d14 (Surr)	104		12 - 144	03/31/25 09:00	04/10/25 16:29	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 12:03	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 12:03	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0909		0.0909	0.0227	ug/L		03/31/25 09:52	04/04/25 17:33	1
4,4'-DDE	<0.0909		0.0909	0.0273	ug/L		03/31/25 09:52	04/04/25 17:33	1
4,4'-DDT	<0.0909		0.0909	0.0182	ug/L		03/31/25 09:52	04/04/25 17:33	1
Aldrin	<0.0909		0.0909	0.0200	ug/L		03/31/25 09:52	04/04/25 17:33	1
alpha-BHC	<0.0909		0.0909	0.00909	ug/L		03/31/25 09:52	04/04/25 17:33	1
beta-BHC	<0.0909		0.0909	0.0382	ug/L		03/31/25 09:52	04/04/25 17:33	1
Chlordane (technical)	<1.82		1.82	0.355	ug/L		03/31/25 09:52	04/04/25 17:33	1
delta-BHC	<0.0909		0.0909	0.0291	ug/L		03/31/25 09:52	04/04/25 17:33	1
Dieldrin	<0.0909	+	0.0909	0.0191	ug/L		03/31/25 09:52	04/04/25 17:33	1
Endosulfan I	<0.0909		0.0909	0.0255	ug/L		03/31/25 09:52	04/04/25 17:33	1
Endosulfan II	<0.0909		0.0909	0.0236	ug/L		03/31/25 09:52	04/04/25 17:33	1
Endosulfan sulfate	<0.0909	+	0.0909	0.0164	ug/L		03/31/25 09:52	04/04/25 17:33	1
Endrin	<0.0909	+	0.0909	0.0255	ug/L		03/31/25 09:52	04/04/25 17:33	1
Endrin aldehyde	<0.0909		0.0909	0.0245	ug/L		03/31/25 09:52	04/04/25 17:33	1
gamma-BHC (Lindane)	<0.0909		0.0909	0.00909	ug/L		03/31/25 09:52	04/04/25 17:33	1
Heptachlor	<0.0909		0.0909	0.0209	ug/L		03/31/25 09:52	04/04/25 17:33	1
Heptachlor epoxide	<0.0909	+	0.0909	0.0291	ug/L		03/31/25 09:52	04/04/25 17:33	1
Methoxychlor	<0.0909	+	0.0909	0.0291	ug/L		03/31/25 09:52	04/04/25 17:33	1
Toxaphene	<1.82		1.82	0.909	ug/L		03/31/25 09:52	04/04/25 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	145	S1+	10 - 136	03/31/25 09:52	04/04/25 17:33	1
Tetrachloro-m-xylene	92		10 - 130	03/31/25 09:52	04/04/25 17:33	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.82	+	1.82	0.745	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1221	<1.82		1.82	0.745	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1232	<1.82		1.82	0.745	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1242	<1.82		1.82	0.745	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1248	<1.82		1.82	0.627	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1254	<1.82		1.82	0.627	ug/L		03/31/25 09:52	04/04/25 17:33	1
PCB-1260	<1.82	+	1.82	0.627	ug/L		03/31/25 09:52	04/04/25 17:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	145	S1+	10 - 136	03/31/25 09:52	04/04/25 17:33	1
Tetrachloro-m-xylene	92		10 - 130	03/31/25 09:52	04/04/25 17:33	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.149		0.149	0.0647	ug/L		04/02/25 15:15	04/03/25 21:54	1
Silvex (2,4,5-TP)	<0.0498		0.0498	0.0219	ug/L		04/02/25 15:15	04/03/25 21:54	1
2,4-D	<0.597		0.597	0.249	ug/L		04/02/25 15:15	04/03/25 21:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	72		34 - 142	04/02/25 15:15	04/03/25 21:54	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	68		34 - 142	04/02/25 15:15	04/03/25 21:54	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		04/02/25 09:00	04/07/25 16:10	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:10	1
Barium	0.140		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:10	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:10	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:10	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:10	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:10	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:10	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:10	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:10	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:10	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:10	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:10	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 16:10	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:10	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/01/25 10:42	04/03/25 23:09	1
Sulfide (SW846 9034)	<2.50		2.50	0.578	mg/L		04/01/25 13:13	04/01/25 14:22	1
Total Suspended Solids (USGS I-3765-85)	<6.12		6.12	4.29	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 15:36	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 15:36	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 15:36	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 15:36	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 15:36	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 15:36	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 15:36	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 15:36	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 15:36	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 15:36	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 15:36	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 15:36	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 15:36	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 15:36	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 15:36	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 15:36	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 15:36	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 15:36	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 15:36	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 15:36	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 15:36	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 15:36	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 15:36	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 15:36	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 15:36	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 15:36	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 15:36	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 15:36	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 15:36	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 15:36	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 15:36	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 15:36	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 15:36	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 15:36	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 15:36	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 15:36	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 15:36	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 15:36	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 15:36	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 15:36	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 15:36	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 15:36	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 15:36	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 15:36	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 15:36	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 15:36	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 15:36	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 15:36	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 15:36	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 15:36	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 15:36	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 15:36	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 15:36	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 15:36	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 15:36	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 15:36	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 15:36	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 15:36	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 15:36	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 15:36	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 15:36	1
Toluene-d8 (Surr)	95		80 - 120		03/31/25 15:36	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 15:36	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:26	1
1,3,5-Trinitrobenzene	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 16:56	1
1,3-Dinitrobenzene	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/02/25 03:26	1
1,4-Naphthoquinone	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 16:56	1
1,4-phenylenediamine	<10.2	*- *1	10.2	1.94	ug/L		03/31/25 09:00	04/10/25 16:56	1
1-Naphthylamine	<10.2		10.2	2.55	ug/L		03/31/25 09:00	04/10/25 16:56	1
2,3,4,6-Tetrachlorophenol	<10.2		10.2	5.41	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4,5-Trichlorophenol	<10.2		10.2	5.41	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4,6-Trichlorophenol	<10.2		10.2	5.10	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4-Dichlorophenol	<10.2		10.2	0.867	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4-Dimethylphenol	<10.2		10.2	0.592	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4-Dinitrophenol	<20.4		20.4	13.3	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,4-Dinitrotoluene	<10.2		10.2	6.53	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,6-Dichlorophenol	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:26	1
2,6-Dinitrotoluene	<10.2		10.2	0.531	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Acetylaminofluorene	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 16:56	1
2-Chloronaphthalene	<10.2		10.2	0.653	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Chlorophenol	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Methylnaphthalene	<10.2		10.2	0.602	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Methylphenol	<10.2		10.2	0.663	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Naphthylamine	<10.2		10.2	2.14	ug/L		03/31/25 09:00	04/10/25 16:56	1
2-Nitroaniline	<10.2		10.2	6.02	ug/L		03/31/25 09:00	04/02/25 03:26	1
2-Nitrophenol	<10.2		10.2	6.94	ug/L		03/31/25 09:00	04/02/25 03:26	1
3,3'-Dichlorobenzidine	<10.2		10.2	1.43	ug/L		03/31/25 09:00	04/02/25 03:26	1
3,3'-Dimethylbenzidine	<10.2	*1	10.2	1.53	ug/L		03/31/25 09:00	04/11/25 14:37	1
3-Methylcholanthrene	<10.2		10.2	0.327	ug/L		03/31/25 09:00	04/10/25 16:56	1
3-Nitroaniline	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/02/25 03:26	1
4,6-Dinitro-2-methylphenol	<10.2		10.2	7.04	ug/L		03/31/25 09:00	04/02/25 03:26	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 16:56	1
4-Bromophenyl phenyl ether	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:26	1
4-Chloro-3-methylphenol	<10.2		10.2	0.857	ug/L		03/31/25 09:00	04/02/25 03:26	1
4-Chloroaniline	<10.2		10.2	0.633	ug/L		03/31/25 09:00	04/02/25 03:26	1
4-Chlorophenyl phenyl ether	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:26	1
Methylphenol, 3 & 4	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:26	1
4-Nitroaniline	<10.2		10.2	1.33	ug/L		03/31/25 09:00	04/02/25 03:26	1
4-Nitrophenol	<10.2		10.2	7.76	ug/L		03/31/25 09:00	04/02/25 03:26	1
5-Nitro-o-toluidine	<10.2		10.2	2.86	ug/L		03/31/25 09:00	04/10/25 16:56	1
7,12-Dimethylbenz(a)anthracene	<10.2		10.2	1.94	ug/L		03/31/25 09:00	04/10/25 16:56	1
Acenaphthene	<10.2		10.2	0.653	ug/L		03/31/25 09:00	04/02/25 03:26	1
Acenaphthylene	<10.2		10.2	0.735	ug/L		03/31/25 09:00	04/02/25 03:26	1
Acetophenone	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:26	1
Anthracene	<10.2		10.2	0.888	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzo[a]anthracene	<10.2		10.2	0.867	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzo[a]pyrene	<10.2		10.2	8.27	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzo[b]fluoranthene	<10.2		10.2	5.00	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzo[g,h,i]perylene	<10.2		10.2	6.43	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzo[k]fluoranthene	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/02/25 03:26	1
Benzyl alcohol	<10.2		10.2	1.33	ug/L		03/31/25 09:00	04/02/25 03:26	1
Bis(2-chloroethoxy)methane	<10.2		10.2	0.776	ug/L		03/31/25 09:00	04/02/25 03:26	1
Bis(2-chloroethyl)ether	<10.2		10.2	0.837	ug/L		03/31/25 09:00	04/02/25 03:26	1
bis (2-chloroisopropyl) ether	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:26	1
Bis(2-ethylhexyl) phthalate	<10.2		10.2	5.61	ug/L		03/31/25 09:00	04/02/25 03:26	1
Butyl benzyl phthalate	<10.2		10.2	5.51	ug/L		03/31/25 09:00	04/02/25 03:26	1
Chlorobenzilate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 16:56	1
Chrysene	<10.2		10.2	0.888	ug/L		03/31/25 09:00	04/02/25 03:26	1
Diallyate	<10.2		10.2	4.08	ug/L		03/31/25 09:00	04/10/25 16:56	1
Dibenzo(a,h)anthracene	<10.2		10.2	3.98	ug/L		03/31/25 09:00	04/02/25 03:26	1
Dibenzofuran	<10.2		10.2	0.755	ug/L		03/31/25 09:00	04/02/25 03:26	1
Diethyl phthalate	<10.2		10.2	1.73	ug/L		03/31/25 09:00	04/02/25 03:26	1
Dimethoate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 16:56	1
Dimethyl phthalate	<10.2		10.2	1.02	ug/L		03/31/25 09:00	04/02/25 03:26	1
Di-n-butyl phthalate	<10.2		10.2	5.71	ug/L		03/31/25 09:00	04/02/25 03:26	1
Di-n-octyl phthalate	<20.4		20.4	7.14	ug/L		03/31/25 09:00	04/02/25 03:26	1
Dinoseb	<10.2		10.2	2.45	ug/L		03/31/25 09:00	04/10/25 16:56	1
Diphenylamine	<10.2		10.2	6.12	ug/L		03/31/25 09:00	04/02/25 03:26	1
Disulfoton	<10.2		10.2	2.45	ug/L		03/31/25 09:00	04/10/25 16:56	1
Ethyl methanesulfonate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 16:56	1
Ethyl Parathion	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 16:56	1
Famphur	<10.2		10.2	3.88	ug/L		03/31/25 09:00	04/14/25 08:08	1
Fluoranthene	<10.2		10.2	1.73	ug/L		03/31/25 09:00	04/02/25 03:26	1
Fluorene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:26	1
Hexachlorobenzene	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:26	1
Hexachlorobutadiene	<10.2		10.2	0.878	ug/L		03/31/25 09:00	04/02/25 03:26	1
Hexachlorocyclopentadiene	<10.2		10.2	5.20	ug/L		03/31/25 09:00	04/02/25 03:26	1
Hexachloroethane	<10.2		10.2	0.990	ug/L		03/31/25 09:00	04/02/25 03:26	1
Hexachloropropene	<10.2 *1		10.2	2.65	ug/L		03/31/25 09:00	04/10/25 16:56	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.2		10.2	4.29	ug/L		03/31/25 09:00	04/02/25 03:26	1
Isodrin	<10.2		10.2	4.80	ug/L		03/31/25 09:00	04/10/25 16:56	1
Isophorone	<10.2		10.2	0.949	ug/L		03/31/25 09:00	04/02/25 03:26	1
Isosafrole	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 16:56	1
Kepone	<10.2	*+ *1	10.2	1.02	ug/L		03/31/25 09:00	04/10/25 16:56	1
Methapyriline	<10.2	*1	10.2	0.776	ug/L		03/31/25 09:00	04/10/25 16:56	1
Methyl methanesulfonate	<10.2		10.2	3.37	ug/L		03/31/25 09:00	04/10/25 16:56	1
Methyl parathion	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 16:56	1
Nitrobenzene	<10.2		10.2	0.816	ug/L		03/31/25 09:00	04/02/25 03:26	1
N-Nitrosodiethylamine	<10.2		10.2	3.47	ug/L		03/31/25 09:00	04/10/25 16:56	1
N-Nitrosodimethylamine	<10.2		10.2	0.735	ug/L		03/31/25 09:00	04/02/25 03:26	1
N-Nitrosodi-n-butylamine	<10.2		10.2	3.98	ug/L		03/31/25 09:00	04/10/25 16:56	1
N-Nitrosodi-n-propylamine	<10.2		10.2	0.939	ug/L		03/31/25 09:00	04/02/25 03:26	1
N-Nitrosodiphenylamine	<10.2		10.2	0.765	ug/L		03/31/25 09:00	04/02/25 03:26	1
N-Nitrosomethylethylamine	<10.2	*1	10.2	5.00	ug/L		03/31/25 09:00	04/10/25 16:56	1
N-Nitrosopiperidine	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 16:56	1
N-Nitrosopyrrolidine	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 16:56	1
o,o',o"-Triethylphosphorothioate	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/10/25 16:56	1
o-Toluidine	<10.2		10.2	2.96	ug/L		03/31/25 09:00	04/10/25 16:56	1
p-Dimethylamino azobenzene	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 16:56	1
Pentachlorobenzene	<10.2	*1	10.2	2.86	ug/L		03/31/25 09:00	04/10/25 16:56	1
Pentachloronitrobenzene	<10.2		10.2	5.92	ug/L		03/31/25 09:00	04/10/25 16:56	1
Pentachlorophenol	<10.2		10.2	9.80	ug/L		03/31/25 09:00	04/02/25 03:26	1
Phenacetin	<10.2		10.2	1.94	ug/L		03/31/25 09:00	04/10/25 16:56	1
Phenanthrene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:26	1
Phenol	<10.2		10.2	1.12	ug/L		03/31/25 09:00	04/02/25 03:26	1
Phorate	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/10/25 16:56	1
Pronamide	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 16:56	1
Pyrene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:26	1
Safrole	<10.2		10.2	2.86	ug/L		03/31/25 09:00	04/10/25 16:56	1
Thionazin	<10.2		10.2	3.57	ug/L		03/31/25 09:00	04/10/25 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	62		25 - 110	03/31/25 09:00	04/02/25 03:26	1
2-Fluorophenol (Surr)	54		25 - 110	03/31/25 09:00	04/10/25 16:56	1
Phenol-d5 (Surr)	56		21 - 110	03/31/25 09:00	04/02/25 03:26	1
Phenol-d5 (Surr)	51		21 - 110	03/31/25 09:00	04/10/25 16:56	1
Nitrobenzene-d5 (Surr)	80		45 - 129	03/31/25 09:00	04/02/25 03:26	1
Nitrobenzene-d5 (Surr)	77		45 - 129	03/31/25 09:00	04/10/25 16:56	1
2-Fluorobiphenyl (Surr)	78		39 - 118	03/31/25 09:00	04/02/25 03:26	1
2-Fluorobiphenyl (Surr)	61		39 - 118	03/31/25 09:00	04/10/25 16:56	1
2,4,6-Tribromophenol (Surr)	76		27 - 136	03/31/25 09:00	04/02/25 03:26	1
2,4,6-Tribromophenol (Surr)	68		27 - 136	03/31/25 09:00	04/10/25 16:56	1
Terphenyl-d14 (Surr)	88		12 - 144	03/31/25 09:00	04/02/25 03:26	1
Terphenyl-d14 (Surr)	72		12 - 144	03/31/25 09:00	04/10/25 16:56	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 12:22	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 12:22	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0900		0.0900	0.0225	ug/L		03/31/25 09:52	04/04/25 17:46	1
4,4'-DDE	<0.0900		0.0900	0.0270	ug/L		03/31/25 09:52	04/04/25 17:46	1
4,4'-DDT	<0.0900		0.0900	0.0180	ug/L		03/31/25 09:52	04/04/25 17:46	1
Aldrin	<0.0900		0.0900	0.0198	ug/L		03/31/25 09:52	04/04/25 17:46	1
alpha-BHC	<0.0900		0.0900	0.00900	ug/L		03/31/25 09:52	04/04/25 17:46	1
beta-BHC	<0.0900		0.0900	0.0378	ug/L		03/31/25 09:52	04/04/25 17:46	1
Chlordane (technical)	<1.80		1.80	0.351	ug/L		03/31/25 09:52	04/04/25 17:46	1
delta-BHC	<0.0900		0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 17:46	1
Dieldrin	<0.0900	+	0.0900	0.0189	ug/L		03/31/25 09:52	04/04/25 17:46	1
Endosulfan I	<0.0900		0.0900	0.0252	ug/L		03/31/25 09:52	04/04/25 17:46	1
Endosulfan II	<0.0900		0.0900	0.0234	ug/L		03/31/25 09:52	04/04/25 17:46	1
Endosulfan sulfate	<0.0900	+	0.0900	0.0162	ug/L		03/31/25 09:52	04/04/25 17:46	1
Endrin	<0.0900	+	0.0900	0.0252	ug/L		03/31/25 09:52	04/04/25 17:46	1
Endrin aldehyde	<0.0900		0.0900	0.0243	ug/L		03/31/25 09:52	04/04/25 17:46	1
gamma-BHC (Lindane)	<0.0900		0.0900	0.00900	ug/L		03/31/25 09:52	04/04/25 17:46	1
Heptachlor	<0.0900		0.0900	0.0207	ug/L		03/31/25 09:52	04/04/25 17:46	1
Heptachlor epoxide	<0.0900	+	0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 17:46	1
Methoxychlor	<0.0900	+	0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 17:46	1
Toxaphene	<1.80		1.80	0.900	ug/L		03/31/25 09:52	04/04/25 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	137	S1+	10 - 136	03/31/25 09:52	04/04/25 17:46	1
Tetrachloro-m-xylene	90		10 - 130	03/31/25 09:52	04/04/25 17:46	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.80	+	1.80	0.738	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1221	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1232	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1242	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1248	<1.80		1.80	0.621	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1254	<1.80		1.80	0.621	ug/L		03/31/25 09:52	04/04/25 17:46	1
PCB-1260	<1.80	+	1.80	0.621	ug/L		03/31/25 09:52	04/04/25 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	137	S1+	10 - 136	03/31/25 09:52	04/04/25 17:46	1
Tetrachloro-m-xylene	90		10 - 130	03/31/25 09:52	04/04/25 17:46	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.161	H	0.161	0.0699	ug/L		04/04/25 14:48	04/08/25 01:45	1
Silvex (2,4,5-TP)	<0.0538	H	0.0538	0.0237	ug/L		04/04/25 14:48	04/08/25 01:45	1
2,4-D	<0.646	H	0.646	0.269	ug/L		04/04/25 14:48	04/08/25 01:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	48		34 - 142	04/04/25 14:48	04/08/25 01:45	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	45		34 - 142	04/04/25 14:48	04/08/25 01:45	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		04/02/25 09:00	04/07/25 16:27	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:27	1
Barium	0.0723		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:27	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:27	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:27	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:27	1
Cobalt	0.000184	J	0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:27	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:27	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:27	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:27	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:27	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:27	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:27	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 16:27	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:27	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/01/25 10:42	04/03/25 23:06	1
Sulfide (SW846 9034)	<2.50	H	2.50	0.578	mg/L		04/01/25 13:08	04/01/25 14:13	1
Total Suspended Solids (USGS I-3765-85)	<6.82	H	6.82	4.77	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-302994-8

Date Collected: 03/24/25 14:26

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 15:59	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 15:59	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 15:59	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 15:59	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 15:59	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 15:59	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 15:59	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 15:59	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 15:59	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 15:59	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 15:59	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 15:59	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 15:59	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 15:59	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 15:59	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 15:59	1
Acetone	9.97	J	10.0	3.10	ug/L			03/31/25 15:59	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 15:59	1
Benzene	1.19		0.500	0.220	ug/L			03/31/25 15:59	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 15:59	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 15:59	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 15:59	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 15:59	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 15:59	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 15:59	1
Chlorobenzene	3.29		1.00	0.400	ug/L			03/31/25 15:59	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 15:59	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 15:59	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 15:59	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 15:59	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 15:59	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 15:59	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 15:59	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 15:59	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 15:59	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 15:59	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 15:59	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 15:59	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 15:59	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 15:59	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 15:59	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 15:59	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 15:59	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 15:59	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 15:59	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 15:59	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 15:59	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-302994-8

Date Collected: 03/24/25 14:26

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		73 - 130		03/31/25 15:59	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 15:59	1
4-Bromofluorobenzene (Surr)	96		80 - 120		03/31/25 15:59	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	0.232	H	0.0541	0.0238	ug/L		04/04/25 14:48	04/08/25 02:13	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		04/02/25 09:00	04/04/25 14:38	1
Arsenic	0.0190		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 14:38	1
Barium	3.23		0.00800	0.00264	mg/L		04/02/25 09:00	04/07/25 12:45	4
Beryllium	<0.00400		0.00400	0.00132	mg/L		04/02/25 09:00	04/07/25 12:45	4
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 14:38	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 14:38	1
Cobalt	0.0110		0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 14:38	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 14:38	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 14:38	1
Nickel	0.0576		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 14:38	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/04/25 14:38	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/04/25 14:38	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/04/25 14:38	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/04/25 14:38	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	105	H	15.0	10.5	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-13

Lab Sample ID: 310-302994-9

Date Collected: 03/25/25 16:58

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 17:30	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 17:30	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 17:30	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 17:30	1
1,1-Dichloroethane	0.863	J	1.00	0.220	ug/L			03/31/25 17:30	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 17:30	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 17:30	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 17:30	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 17:30	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 17:30	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 17:30	1
1,2-Dichloropropane	0.362	J	1.00	0.270	ug/L			03/31/25 17:30	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 17:30	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 17:30	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 17:30	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 17:30	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 17:30	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 17:30	1
Benzene	0.288	J	0.500	0.220	ug/L			03/31/25 17:30	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 17:30	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 17:30	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 17:30	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 17:30	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 17:30	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 17:30	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 17:30	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 17:30	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 17:30	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 17:30	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 17:30	1
cis-1,2-Dichloroethene	10.1		1.00	0.210	ug/L			03/31/25 17:30	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 17:30	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 17:30	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 17:30	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 17:30	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 17:30	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 17:30	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 17:30	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 17:30	1
trans-1,2-Dichloroethene	0.729	J	1.00	0.270	ug/L			03/31/25 17:30	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 17:30	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 17:30	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 17:30	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 17:30	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 17:30	1
Vinyl chloride	1.95		1.00	0.180	ug/L			03/31/25 17:30	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 17:30	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-13

Lab Sample ID: 310-302994-9

Date Collected: 03/25/25 16:58

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 17:30	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 17:30	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 17:30	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		04/02/25 09:00	04/04/25 14:40	1
Arsenic	0.00422		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 14:40	1
Barium	0.634		0.00200	0.000660	mg/L		04/02/25 09:00	04/04/25 14:40	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 12:47	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 14:40	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 14:40	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 14:40	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 14:40	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 14:40	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 14:40	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/04/25 14:40	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/04/25 14:40	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/04/25 14:40	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/04/25 14:40	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	18.4	H	5.88	4.12	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-20

Lab Sample ID: 310-302994-10

Date Collected: 03/25/25 11:21

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 14:36	1
Barium	0.0619		0.00200	0.000660	mg/L		04/02/25 09:00	04/04/25 14:36	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 14:36	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 14:36	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 14:36	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 14:36	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 14:36	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 14:36	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<5.88	H	5.88	4.12	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-21

Lab Sample ID: 310-302994-11

Date Collected: 03/25/25 12:39

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:41	1
Barium	0.0577		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:41	1
Cadmium	0.000104	J	0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:41	1
Chromium	0.00189	J	0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:41	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:41	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:41	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:41	1
Nickel	0.00390	J	0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:41	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.12	H	6.12	4.29	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 17:52	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 17:52	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 17:52	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 17:52	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 17:52	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 17:52	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 17:52	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 17:52	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 17:52	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 17:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 17:52	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 17:52	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 17:52	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 17:52	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 17:52	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 17:52	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 17:52	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 17:52	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 17:52	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 17:52	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 17:52	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 17:52	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 17:52	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 17:52	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 17:52	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 17:52	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 17:52	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 17:52	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 17:52	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 17:52	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 17:52	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 17:52	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 17:52	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 17:52	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 17:52	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 17:52	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 17:52	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 17:52	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 17:52	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 17:52	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 17:52	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 17:52	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 17:52	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 17:52	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 17:52	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 17:52	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 17:52	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 17:52	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 17:52	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 17:52	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 17:52	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 17:52	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 17:52	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 17:52	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 17:52	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 17:52	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 17:52	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 17:52	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 17:52	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 17:52	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		73 - 130		03/31/25 17:52	1
Toluene-d8 (Surr)	95		80 - 120		03/31/25 17:52	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 17:52	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:55	1
1,3,5-Trinitrobenzene	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 17:22	1
1,3-Dinitrobenzene	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/02/25 03:55	1
1,4-Naphthoquinone	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 17:22	1
1,4-phenylenediamine	<10.2	*- *1	10.2	1.94	ug/L		03/31/25 09:00	04/10/25 17:22	1
1-Naphthylamine	<10.2		10.2	2.55	ug/L		03/31/25 09:00	04/10/25 17:22	1
2,3,4,6-Tetrachlorophenol	<10.2		10.2	5.41	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4,5-Trichlorophenol	<10.2		10.2	5.41	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4,6-Trichlorophenol	<10.2		10.2	5.10	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4-Dichlorophenol	<10.2		10.2	0.867	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4-Dimethylphenol	<10.2		10.2	0.592	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4-Dinitrophenol	<20.4		20.4	13.3	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,4-Dinitrotoluene	<10.2		10.2	6.53	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,6-Dichlorophenol	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:55	1
2,6-Dinitrotoluene	<10.2		10.2	0.531	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Acetylaminofluorene	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 17:22	1
2-Chloronaphthalene	<10.2		10.2	0.653	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Chlorophenol	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Methylnaphthalene	<10.2		10.2	0.602	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Methylphenol	<10.2		10.2	0.663	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Naphthylamine	<10.2		10.2	2.14	ug/L		03/31/25 09:00	04/10/25 17:22	1
2-Nitroaniline	<10.2		10.2	6.02	ug/L		03/31/25 09:00	04/02/25 03:55	1
2-Nitrophenol	<10.2		10.2	6.94	ug/L		03/31/25 09:00	04/02/25 03:55	1
3,3'-Dichlorobenzidine	<10.2		10.2	1.43	ug/L		03/31/25 09:00	04/02/25 03:55	1
3,3'-Dimethylbenzidine	<10.2	*1	10.2	1.53	ug/L		03/31/25 09:00	04/11/25 15:03	1
3-Methylcholanthrene	<10.2		10.2	0.327	ug/L		03/31/25 09:00	04/10/25 17:22	1
3-Nitroaniline	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/02/25 03:55	1
4,6-Dinitro-2-methylphenol	<10.2		10.2	7.04	ug/L		03/31/25 09:00	04/02/25 03:55	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 17:22	1
4-Bromophenyl phenyl ether	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:55	1
4-Chloro-3-methylphenol	<10.2		10.2	0.857	ug/L		03/31/25 09:00	04/02/25 03:55	1
4-Chloroaniline	<10.2		10.2	0.633	ug/L		03/31/25 09:00	04/02/25 03:55	1
4-Chlorophenyl phenyl ether	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:55	1
Methylphenol, 3 & 4	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:55	1
4-Nitroaniline	<10.2		10.2	1.33	ug/L		03/31/25 09:00	04/02/25 03:55	1
4-Nitrophenol	<10.2		10.2	7.76	ug/L		03/31/25 09:00	04/02/25 03:55	1
5-Nitro-o-toluidine	<10.2		10.2	2.86	ug/L		03/31/25 09:00	04/10/25 17:22	1
7,12-Dimethylbenz(a)anthracene	<10.2		10.2	1.94	ug/L		03/31/25 09:00	04/10/25 17:22	1
Acenaphthene	<10.2		10.2	0.653	ug/L		03/31/25 09:00	04/02/25 03:55	1
Acenaphthylene	<10.2		10.2	0.735	ug/L		03/31/25 09:00	04/02/25 03:55	1
Acetophenone	<10.2		10.2	0.704	ug/L		03/31/25 09:00	04/02/25 03:55	1
Anthracene	<10.2		10.2	0.888	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzo[a]anthracene	<10.2		10.2	0.867	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzo[a]pyrene	<10.2		10.2	8.27	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzo[b]fluoranthene	<10.2		10.2	5.00	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzo[g,h,i]perylene	<10.2		10.2	6.43	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzo[k]fluoranthene	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/02/25 03:55	1
Benzyl alcohol	<10.2		10.2	1.33	ug/L		03/31/25 09:00	04/02/25 03:55	1
Bis(2-chloroethoxy)methane	<10.2		10.2	0.776	ug/L		03/31/25 09:00	04/02/25 03:55	1
Bis(2-chloroethyl)ether	<10.2		10.2	0.837	ug/L		03/31/25 09:00	04/02/25 03:55	1
bis (2-chloroisopropyl) ether	<10.2		10.2	0.551	ug/L		03/31/25 09:00	04/02/25 03:55	1
Bis(2-ethylhexyl) phthalate	<10.2		10.2	5.61	ug/L		03/31/25 09:00	04/02/25 03:55	1
Butyl benzyl phthalate	<10.2		10.2	5.51	ug/L		03/31/25 09:00	04/02/25 03:55	1
Chlorobenzilate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 17:22	1
Chrysene	<10.2		10.2	0.888	ug/L		03/31/25 09:00	04/02/25 03:55	1
Diallylate	<10.2		10.2	4.08	ug/L		03/31/25 09:00	04/10/25 17:22	1
Dibenzo(a,h)anthracene	<10.2		10.2	3.98	ug/L		03/31/25 09:00	04/02/25 03:55	1
Dibenzofuran	<10.2		10.2	0.755	ug/L		03/31/25 09:00	04/02/25 03:55	1
Diethyl phthalate	<10.2		10.2	1.73	ug/L		03/31/25 09:00	04/02/25 03:55	1
Dimethoate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 17:22	1
Dimethyl phthalate	<10.2		10.2	1.02	ug/L		03/31/25 09:00	04/02/25 03:55	1
Di-n-butyl phthalate	8.44	J	10.2	5.71	ug/L		03/31/25 09:00	04/02/25 03:55	1
Di-n-octyl phthalate	<20.4		20.4	7.14	ug/L		03/31/25 09:00	04/02/25 03:55	1
Dinoseb	<10.2		10.2	2.45	ug/L		03/31/25 09:00	04/10/25 17:22	1
Diphenylamine	<10.2		10.2	6.12	ug/L		03/31/25 09:00	04/02/25 03:55	1
Disulfoton	<10.2		10.2	2.45	ug/L		03/31/25 09:00	04/10/25 17:22	1
Ethyl methanesulfonate	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 17:22	1
Ethyl Parathion	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 17:22	1
Famphur	<10.2		10.2	3.88	ug/L		03/31/25 09:00	04/14/25 08:27	1
Fluoranthene	<10.2		10.2	1.73	ug/L		03/31/25 09:00	04/02/25 03:55	1
Fluorene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:55	1
Hexachlorobenzene	<10.2		10.2	0.714	ug/L		03/31/25 09:00	04/02/25 03:55	1
Hexachlorobutadiene	<10.2		10.2	0.878	ug/L		03/31/25 09:00	04/02/25 03:55	1
Hexachlorocyclopentadiene	<10.2		10.2	5.20	ug/L		03/31/25 09:00	04/02/25 03:55	1
Hexachloroethane	<10.2		10.2	0.990	ug/L		03/31/25 09:00	04/02/25 03:55	1
Hexachloropropene	<10.2	*1	10.2	2.65	ug/L		03/31/25 09:00	04/10/25 17:22	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.2		10.2	4.29	ug/L		03/31/25 09:00	04/02/25 03:55	1
Isodrin	<10.2		10.2	4.80	ug/L		03/31/25 09:00	04/10/25 17:22	1
Isophorone	<10.2		10.2	0.949	ug/L		03/31/25 09:00	04/02/25 03:55	1
Isosafrole	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 17:22	1
Kepone	<10.2	*+ *1	10.2	1.02	ug/L		03/31/25 09:00	04/10/25 17:22	1
Methapyrilene	<10.2	*1	10.2	0.776	ug/L		03/31/25 09:00	04/10/25 17:22	1
Methyl methanesulfonate	<10.2		10.2	3.37	ug/L		03/31/25 09:00	04/10/25 17:22	1
Methyl parathion	<10.2		10.2	2.35	ug/L		03/31/25 09:00	04/10/25 17:22	1
Nitrobenzene	<10.2		10.2	0.816	ug/L		03/31/25 09:00	04/02/25 03:55	1
N-Nitrosodiethylamine	<10.2		10.2	3.47	ug/L		03/31/25 09:00	04/10/25 17:22	1
N-Nitrosodimethylamine	<10.2		10.2	0.735	ug/L		03/31/25 09:00	04/02/25 03:55	1
N-Nitrosodi-n-butylamine	<10.2		10.2	3.98	ug/L		03/31/25 09:00	04/10/25 17:22	1
N-Nitrosodi-n-propylamine	<10.2		10.2	0.939	ug/L		03/31/25 09:00	04/02/25 03:55	1
N-Nitrosodiphenylamine	<10.2		10.2	0.765	ug/L		03/31/25 09:00	04/02/25 03:55	1
N-Nitrosomethylethylamine	<10.2	*1	10.2	5.00	ug/L		03/31/25 09:00	04/10/25 17:22	1
N-Nitrosopiperidine	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 17:22	1
N-Nitrosopyrrolidine	<10.2		10.2	3.67	ug/L		03/31/25 09:00	04/10/25 17:22	1
o,o',o"-Triethylphosphorothioate	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/10/25 17:22	1
o-Toluidine	<10.2		10.2	2.96	ug/L		03/31/25 09:00	04/10/25 17:22	1
p-Dimethylamino azobenzene	<10.2		10.2	2.24	ug/L		03/31/25 09:00	04/10/25 17:22	1
Pentachlorobenzene	<10.2	*1	10.2	2.86	ug/L		03/31/25 09:00	04/10/25 17:22	1
Pentachloronitrobenzene	<10.2		10.2	5.92	ug/L		03/31/25 09:00	04/10/25 17:22	1
Pentachlorophenol	<10.2		10.2	9.80	ug/L		03/31/25 09:00	04/02/25 03:55	1
Phenacetin	<10.2		10.2	1.94	ug/L		03/31/25 09:00	04/10/25 17:22	1
Phenanthrene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:55	1
Phenol	<10.2		10.2	1.12	ug/L		03/31/25 09:00	04/02/25 03:55	1
Phorate	<10.2		10.2	3.27	ug/L		03/31/25 09:00	04/10/25 17:22	1
Pronamide	<10.2		10.2	2.76	ug/L		03/31/25 09:00	04/10/25 17:22	1
Pyrene	<10.2		10.2	0.806	ug/L		03/31/25 09:00	04/02/25 03:55	1
Safrole	<10.2		10.2	2.86	ug/L		03/31/25 09:00	04/10/25 17:22	1
Thionazin	<10.2		10.2	3.57	ug/L		03/31/25 09:00	04/10/25 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	51		25 - 110	03/31/25 09:00	04/02/25 03:55	1
2-Fluorophenol (Surr)	42		25 - 110	03/31/25 09:00	04/10/25 17:22	1
Phenol-d5 (Surr)	50		21 - 110	03/31/25 09:00	04/02/25 03:55	1
Phenol-d5 (Surr)	42		21 - 110	03/31/25 09:00	04/10/25 17:22	1
Nitrobenzene-d5 (Surr)	73		45 - 129	03/31/25 09:00	04/02/25 03:55	1
Nitrobenzene-d5 (Surr)	66		45 - 129	03/31/25 09:00	04/10/25 17:22	1
2-Fluorobiphenyl (Surr)	68		39 - 118	03/31/25 09:00	04/02/25 03:55	1
2-Fluorobiphenyl (Surr)	56		39 - 118	03/31/25 09:00	04/10/25 17:22	1
2,4,6-Tribromophenol (Surr)	58		27 - 136	03/31/25 09:00	04/02/25 03:55	1
2,4,6-Tribromophenol (Surr)	48		27 - 136	03/31/25 09:00	04/10/25 17:22	1
Terphenyl-d14 (Surr)	76		12 - 144	03/31/25 09:00	04/02/25 03:55	1
Terphenyl-d14 (Surr)	59		12 - 144	03/31/25 09:00	04/10/25 17:22	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 12:42	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 12:42	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0907		0.0907	0.0227	ug/L		03/31/25 09:52	04/04/25 17:59	1
4,4'-DDE	<0.0907		0.0907	0.0272	ug/L		03/31/25 09:52	04/04/25 17:59	1
4,4'-DDT	<0.0907		0.0907	0.0181	ug/L		03/31/25 09:52	04/04/25 17:59	1
Aldrin	<0.0907		0.0907	0.0199	ug/L		03/31/25 09:52	04/04/25 17:59	1
alpha-BHC	<0.0907		0.0907	0.00907	ug/L		03/31/25 09:52	04/04/25 17:59	1
beta-BHC	<0.0907		0.0907	0.0381	ug/L		03/31/25 09:52	04/04/25 17:59	1
Chlordane (technical)	<1.81		1.81	0.354	ug/L		03/31/25 09:52	04/04/25 17:59	1
delta-BHC	<0.0907		0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 17:59	1
Dieldrin	<0.0907	+	0.0907	0.0190	ug/L		03/31/25 09:52	04/04/25 17:59	1
Endosulfan I	<0.0907		0.0907	0.0254	ug/L		03/31/25 09:52	04/04/25 17:59	1
Endosulfan II	<0.0907		0.0907	0.0236	ug/L		03/31/25 09:52	04/04/25 17:59	1
Endosulfan sulfate	<0.0907	+	0.0907	0.0163	ug/L		03/31/25 09:52	04/04/25 17:59	1
Endrin	<0.0907	+	0.0907	0.0254	ug/L		03/31/25 09:52	04/04/25 17:59	1
Endrin aldehyde	<0.0907		0.0907	0.0245	ug/L		03/31/25 09:52	04/04/25 17:59	1
gamma-BHC (Lindane)	<0.0907		0.0907	0.00907	ug/L		03/31/25 09:52	04/04/25 17:59	1
Heptachlor	<0.0907		0.0907	0.0209	ug/L		03/31/25 09:52	04/04/25 17:59	1
Heptachlor epoxide	<0.0907	+	0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 17:59	1
Methoxychlor	<0.0907	+	0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 17:59	1
Toxaphene	<1.81		1.81	0.907	ug/L		03/31/25 09:52	04/04/25 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	137	S1+	10 - 136	03/31/25 09:52	04/04/25 17:59	1
Tetrachloro-m-xylene	97		10 - 130	03/31/25 09:52	04/04/25 17:59	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.81	+	1.81	0.744	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1221	<1.81		1.81	0.744	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1232	<1.81		1.81	0.744	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1242	<1.81		1.81	0.744	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1248	<1.81		1.81	0.626	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1254	<1.81		1.81	0.626	ug/L		03/31/25 09:52	04/04/25 17:59	1
PCB-1260	<1.81	+	1.81	0.626	ug/L		03/31/25 09:52	04/04/25 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	137	S1+	10 - 136	03/31/25 09:52	04/04/25 17:59	1
Tetrachloro-m-xylene	97		10 - 130	03/31/25 09:52	04/04/25 17:59	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.161		0.161	0.0696	ug/L		04/01/25 15:00	04/02/25 20:23	1
Silvex (2,4,5-TP)	<0.0535		0.0535	0.0236	ug/L		04/01/25 15:00	04/02/25 20:23	1
2,4-D	<0.642		0.642	0.268	ug/L		04/01/25 15:00	04/02/25 20:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	60		34 - 142	04/01/25 15:00	04/02/25 20:23	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	57		34 - 142	04/01/25 15:00	04/02/25 20:23	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		04/02/25 09:00	04/07/25 16:13	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:13	1
Barium	0.275		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:13	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:13	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:13	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:13	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:13	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:13	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:13	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:13	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:13	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:13	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:13	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 16:13	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:13	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/03/25 10:02	04/03/25 23:21	1
Sulfide (SW846 9034)	<2.50		2.50	0.578	mg/L		04/01/25 13:05	04/01/25 14:09	1
Total Suspended Solids (USGS I-3765-85)	<5.88	H	5.88	4.12	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23

Lab Sample ID: 310-302994-13

Date Collected: 03/27/25 12:03

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 18:15	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 18:15	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 18:15	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 18:15	1
1,1-Dichloroethane	0.508	J	1.00	0.220	ug/L			03/31/25 18:15	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 18:15	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 18:15	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 18:15	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 18:15	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 18:15	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 18:15	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 18:15	1
1,4-Dichlorobenzene	0.492	J	1.00	0.230	ug/L			03/31/25 18:15	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 18:15	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 18:15	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 18:15	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 18:15	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 18:15	1
Benzene	3.01		0.500	0.220	ug/L			03/31/25 18:15	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 18:15	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 18:15	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 18:15	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 18:15	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 18:15	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 18:15	1
Chlorobenzene	11.1		1.00	0.400	ug/L			03/31/25 18:15	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 18:15	1
Chloroethane	2.22	J	4.00	0.790	ug/L			03/31/25 18:15	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 18:15	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 18:15	1
cis-1,2-Dichloroethene	1.39		1.00	0.210	ug/L			03/31/25 18:15	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 18:15	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 18:15	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 18:15	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 18:15	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 18:15	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 18:15	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 18:15	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 18:15	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 18:15	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 18:15	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 18:15	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 18:15	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 18:15	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 18:15	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 18:15	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 18:15	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23

Lab Sample ID: 310-302994-13

Date Collected: 03/27/25 12:03

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 18:15	1
Toluene-d8 (Surr)	95		80 - 120		03/31/25 18:15	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 18:15	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		04/02/25 09:00	04/07/25 16:34	1
Arsenic	0.0346		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:34	1
Barium	0.482		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:34	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:34	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:34	1
Chromium	0.00875		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:34	1
Cobalt	0.00500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:34	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:34	1
Lead	0.000625		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:34	1
Nickel	0.0104		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:34	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:34	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:34	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:34	1
Vanadium	0.00231 J		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:34	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	66.0		15.0	10.5	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 18:38	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 18:38	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 18:38	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 18:38	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 18:38	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 18:38	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 18:38	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 18:38	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 18:38	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 18:38	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 18:38	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 18:38	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 18:38	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 18:38	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 18:38	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 18:38	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 18:38	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 18:38	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 18:38	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 18:38	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 18:38	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 18:38	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 18:38	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 18:38	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 18:38	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 18:38	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 18:38	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 18:38	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 18:38	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 18:38	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 18:38	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 18:38	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 18:38	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 18:38	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 18:38	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 18:38	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 18:38	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 18:38	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 18:38	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 18:38	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 18:38	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 18:38	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 18:38	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 18:38	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 18:38	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 18:38	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 18:38	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 18:38	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 18:38	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 18:38	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 18:38	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 18:38	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 18:38	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 18:38	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 18:38	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 18:38	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 18:38	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 18:38	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 18:38	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 18:38	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 18:38	1
Toluene-d8 (Surr)	93		80 - 120		03/31/25 18:38	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 18:38	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/11/25 12:01	1
1,3,5-Trinitrobenzene	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 17:49	1
1,3-Dinitrobenzene	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/11/25 12:01	1
1,4-Naphthoquinone	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 17:49	1
1,4-phenylenediamine	<10.4	*- *1	10.4	1.98	ug/L		03/31/25 09:00	04/10/25 17:49	1
1-Naphthylamine	<10.4		10.4	2.60	ug/L		03/31/25 09:00	04/10/25 17:49	1
2,3,4,6-Tetrachlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4,5-Trichlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4,6-Trichlorophenol	<10.4		10.4	5.21	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4-Dichlorophenol	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4-Dimethylphenol	<10.4		10.4	0.604	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4-Dinitrophenol	<20.8		20.8	13.5	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,4-Dinitrotoluene	<10.4		10.4	6.67	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,6-Dichlorophenol	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:01	1
2,6-Dinitrotoluene	<10.4		10.4	0.542	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Acetylaminofluorene	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 17:49	1
2-Chloronaphthalene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Chlorophenol	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Methylnaphthalene	<10.4		10.4	0.615	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Methylphenol	<10.4		10.4	0.677	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Naphthylamine	<10.4		10.4	2.19	ug/L		03/31/25 09:00	04/10/25 17:49	1
2-Nitroaniline	<10.4		10.4	6.15	ug/L		03/31/25 09:00	04/11/25 12:01	1
2-Nitrophenol	<10.4		10.4	7.08	ug/L		03/31/25 09:00	04/11/25 12:01	1
3,3'-Dichlorobenzidine	<10.4		10.4	1.46	ug/L		03/31/25 09:00	04/11/25 12:01	1
3,3'-Dimethylbenzidine	<10.4	*1	10.4	1.56	ug/L		03/31/25 09:00	04/11/25 15:29	1
3-Methylcholanthrene	<10.4		10.4	0.333	ug/L		03/31/25 09:00	04/10/25 17:49	1
3-Nitroaniline	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/11/25 12:01	1
4,6-Dinitro-2-methylphenol	<10.4		10.4	7.19	ug/L		03/31/25 09:00	04/11/25 12:01	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 17:49	1
4-Bromophenyl phenyl ether	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:01	1
4-Chloro-3-methylphenol	<10.4		10.4	0.875	ug/L		03/31/25 09:00	04/11/25 12:01	1
4-Chloroaniline	<10.4		10.4	0.646	ug/L		03/31/25 09:00	04/11/25 12:01	1
4-Chlorophenyl phenyl ether	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:01	1
Methylphenol, 3 & 4	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:01	1
4-Nitroaniline	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/11/25 12:01	1
4-Nitrophenol	<10.4		10.4	7.92	ug/L		03/31/25 09:00	04/11/25 12:01	1
5-Nitro-o-toluidine	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 17:49	1
7,12-Dimethylbenz(a)anthracene	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 17:49	1
Acenaphthene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/11/25 12:01	1
Acenaphthylene	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/11/25 12:01	1
Acetophenone	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:01	1
Anthracene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzo[a]anthracene	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzo[a]pyrene	<10.4		10.4	8.44	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzo[b]fluoranthene	<10.4		10.4	5.10	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzo[g,h,i]perylene	<10.4		10.4	6.56	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzo[k]fluoranthene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/11/25 12:01	1
Benzyl alcohol	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/11/25 12:01	1
Bis(2-chloroethoxy)methane	<10.4		10.4	0.792	ug/L		03/31/25 09:00	04/11/25 12:01	1
Bis(2-chloroethyl)ether	<10.4		10.4	0.854	ug/L		03/31/25 09:00	04/11/25 12:01	1
bis (2-chloroisopropyl) ether	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/10/25 17:49	1
Bis(2-ethylhexyl) phthalate	<10.4		10.4	5.73	ug/L		03/31/25 09:00	04/11/25 12:01	1
Butyl benzyl phthalate	<10.4		10.4	5.63	ug/L		03/31/25 09:00	04/11/25 12:01	1
Chlorobenzilate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 17:49	1
Chrysene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/11/25 12:01	1
Diallate	<10.4		10.4	4.17	ug/L		03/31/25 09:00	04/10/25 17:49	1
Dibenzo(a,h)anthracene	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/11/25 12:01	1
Dibenzofuran	<10.4		10.4	0.771	ug/L		03/31/25 09:00	04/11/25 12:01	1
Diethyl phthalate	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/11/25 12:01	1
Dimethoate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 17:49	1
Dimethyl phthalate	<10.4		10.4	1.04	ug/L		03/31/25 09:00	04/11/25 12:01	1
Di-n-butyl phthalate	<10.4		10.4	5.83	ug/L		03/31/25 09:00	04/11/25 12:01	1
Di-n-octyl phthalate	<20.8		20.8	7.29	ug/L		03/31/25 09:00	04/11/25 12:01	1
Dinoseb	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 17:49	1
Diphenylamine	<10.4		10.4	6.25	ug/L		03/31/25 09:00	04/11/25 12:01	1
Disulfoton	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 17:49	1
Ethyl methanesulfonate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 17:49	1
Ethyl Parathion	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 17:49	1
Famphur	<10.4		10.4	3.96	ug/L		03/31/25 09:00	04/14/25 08:46	1
Fluoranthene	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/11/25 12:01	1
Fluorene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:01	1
Hexachlorobenzene	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:01	1
Hexachlorobutadiene	<10.4		10.4	0.896	ug/L		03/31/25 09:00	04/11/25 12:01	1
Hexachlorocyclopentadiene	<10.4		10.4	5.31	ug/L		03/31/25 09:00	04/11/25 12:01	1
Hexachloroethane	<10.4		10.4	1.01	ug/L		03/31/25 09:00	04/11/25 12:01	1
Hexachloropropene	<10.4	*1	10.4	2.71	ug/L		03/31/25 09:00	04/10/25 17:49	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.4		10.4	4.38	ug/L		03/31/25 09:00	04/11/25 12:01	1
Isodrin	<10.4		10.4	4.90	ug/L		03/31/25 09:00	04/10/25 17:49	1
Isophorone	<10.4		10.4	0.969	ug/L		03/31/25 09:00	04/11/25 12:01	1
Isosafrole	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 17:49	1
Kepone	<10.4	*+ *1	10.4	1.04	ug/L		03/31/25 09:00	04/10/25 17:49	1
Methapyriline	<10.4	*1	10.4	0.792	ug/L		03/31/25 09:00	04/10/25 17:49	1
Methyl methanesulfonate	<10.4		10.4	3.44	ug/L		03/31/25 09:00	04/10/25 17:49	1
Methyl parathion	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 17:49	1
Nitrobenzene	<10.4		10.4	0.833	ug/L		03/31/25 09:00	04/11/25 12:01	1
N-Nitrosodiethylamine	<10.4		10.4	3.54	ug/L		03/31/25 09:00	04/10/25 17:49	1
N-Nitrosodimethylamine	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/11/25 12:01	1
N-Nitrosodi-n-butylamine	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/10/25 17:49	1
N-Nitrosodi-n-propylamine	<10.4		10.4	0.958	ug/L		03/31/25 09:00	04/11/25 12:01	1
N-Nitrosodiphenylamine	<10.4		10.4	0.781	ug/L		03/31/25 09:00	04/11/25 12:01	1
N-Nitrosomethylethylamine	<10.4	*1	10.4	5.10	ug/L		03/31/25 09:00	04/10/25 17:49	1
N-Nitrosopiperidine	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 17:49	1
N-Nitrosopyrrolidine	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 17:49	1
o,o',o"-Triethylphosphorothioate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 17:49	1
o-Toluidine	<10.4		10.4	3.02	ug/L		03/31/25 09:00	04/10/25 17:49	1
p-Dimethylamino azobenzene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 17:49	1
Pentachlorobenzene	<10.4	*1	10.4	2.92	ug/L		03/31/25 09:00	04/10/25 17:49	1
Pentachloronitrobenzene	<10.4		10.4	6.04	ug/L		03/31/25 09:00	04/10/25 17:49	1
Pentachlorophenol	<10.4		10.4	10.0	ug/L		03/31/25 09:00	04/11/25 12:01	1
Phenacetin	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 17:49	1
Phenanthrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:01	1
Phenol	<10.4		10.4	1.15	ug/L		03/31/25 09:00	04/11/25 12:01	1
Phorate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 17:49	1
Pronamide	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 17:49	1
Pyrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:01	1
Safrole	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 17:49	1
Thionazin	<10.4		10.4	3.65	ug/L		03/31/25 09:00	04/10/25 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	63		25 - 110	03/31/25 09:00	04/10/25 17:49	1
2-Fluorophenol (Surr)	65		25 - 110	03/31/25 09:00	04/11/25 12:01	1
Phenol-d5 (Surr)	58		21 - 110	03/31/25 09:00	04/10/25 17:49	1
Phenol-d5 (Surr)	60		21 - 110	03/31/25 09:00	04/11/25 12:01	1
Nitrobenzene-d5 (Surr)	86		45 - 129	03/31/25 09:00	04/10/25 17:49	1
Nitrobenzene-d5 (Surr)	88		45 - 129	03/31/25 09:00	04/11/25 12:01	1
2-Fluorobiphenyl (Surr)	73		39 - 118	03/31/25 09:00	04/10/25 17:49	1
2-Fluorobiphenyl (Surr)	76		39 - 118	03/31/25 09:00	04/11/25 12:01	1
2,4,6-Tribromophenol (Surr)	88		27 - 136	03/31/25 09:00	04/10/25 17:49	1
2,4,6-Tribromophenol (Surr)	108		27 - 136	03/31/25 09:00	04/11/25 12:01	1
Terphenyl-d14 (Surr)	90		12 - 144	03/31/25 09:00	04/10/25 17:49	1
Terphenyl-d14 (Surr)	87		12 - 144	03/31/25 09:00	04/11/25 12:01	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 13:01	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 13:01	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0902		0.0902	0.0226	ug/L		03/31/25 09:52	04/04/25 18:12	1
4,4'-DDE	<0.0902		0.0902	0.0271	ug/L		03/31/25 09:52	04/04/25 18:12	1
4,4'-DDT	<0.0902		0.0902	0.0180	ug/L		03/31/25 09:52	04/04/25 18:12	1
Aldrin	<0.0902		0.0902	0.0198	ug/L		03/31/25 09:52	04/04/25 18:12	1
alpha-BHC	<0.0902		0.0902	0.00902	ug/L		03/31/25 09:52	04/04/25 18:12	1
beta-BHC	<0.0902		0.0902	0.0379	ug/L		03/31/25 09:52	04/04/25 18:12	1
Chlordane (technical)	<1.80		1.80	0.352	ug/L		03/31/25 09:52	04/04/25 18:12	1
delta-BHC	<0.0902		0.0902	0.0289	ug/L		03/31/25 09:52	04/04/25 18:12	1
Dieldrin	<0.0902	+	0.0902	0.0189	ug/L		03/31/25 09:52	04/04/25 18:12	1
Endosulfan I	<0.0902		0.0902	0.0253	ug/L		03/31/25 09:52	04/04/25 18:12	1
Endosulfan II	<0.0902		0.0902	0.0235	ug/L		03/31/25 09:52	04/04/25 18:12	1
Endosulfan sulfate	<0.0902	+	0.0902	0.0162	ug/L		03/31/25 09:52	04/04/25 18:12	1
Endrin	<0.0902	+	0.0902	0.0253	ug/L		03/31/25 09:52	04/04/25 18:12	1
Endrin aldehyde	<0.0902		0.0902	0.0244	ug/L		03/31/25 09:52	04/04/25 18:12	1
gamma-BHC (Lindane)	<0.0902		0.0902	0.00902	ug/L		03/31/25 09:52	04/04/25 18:12	1
Heptachlor	<0.0902		0.0902	0.0207	ug/L		03/31/25 09:52	04/04/25 18:12	1
Heptachlor epoxide	<0.0902	+	0.0902	0.0289	ug/L		03/31/25 09:52	04/04/25 18:12	1
Methoxychlor	<0.0902	+	0.0902	0.0289	ug/L		03/31/25 09:52	04/04/25 18:12	1
Toxaphene	<1.80		1.80	0.902	ug/L		03/31/25 09:52	04/04/25 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	196	S1+	10 - 136				03/31/25 09:52	04/04/25 18:12	1
Tetrachloro-m-xylene	130		10 - 130				03/31/25 09:52	04/04/25 18:12	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.80	+	1.80	0.740	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1221	<1.80		1.80	0.740	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1232	<1.80		1.80	0.740	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1242	<1.80		1.80	0.740	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1248	<1.80		1.80	0.622	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1254	<1.80		1.80	0.622	ug/L		03/31/25 09:52	04/04/25 18:12	1
PCB-1260	<1.80	+	1.80	0.622	ug/L		03/31/25 09:52	04/04/25 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	196	S1+	10 - 136				03/31/25 09:52	04/04/25 18:12	1
Tetrachloro-m-xylene	130		10 - 130				03/31/25 09:52	04/04/25 18:12	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.169		0.169	0.0733	ug/L		04/01/25 15:00	04/02/25 20:51	1
Silvex (2,4,5-TP)	<0.0564		0.0564	0.0248	ug/L		04/01/25 15:00	04/02/25 20:51	1
2,4-D	<0.676		0.676	0.282	ug/L		04/01/25 15:00	04/02/25 20:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	61		34 - 142				04/01/25 15:00	04/02/25 20:51	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	60		34 - 142	04/01/25 15:00	04/02/25 20:51	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		04/02/25 09:00	04/07/25 16:22	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:22	1
Barium	0.236		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:22	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:22	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:22	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:22	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:22	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:22	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:22	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:22	1
Selenium	0.00264	J	0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:22	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:22	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:22	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 16:22	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:22	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/03/25 10:02	04/03/25 23:22	1
Sulfide (SW846 9034)	<1.00		1.00	0.231	mg/L		04/01/25 13:19	04/01/25 14:31	1
Total Suspended Solids (USGS I-3765-85)	<7.32	H	7.32	5.12	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 19:01	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 19:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 19:01	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 19:01	1
1,1-Dichloroethane	0.238	J	1.00	0.220	ug/L			03/31/25 19:01	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 19:01	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 19:01	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 19:01	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 19:01	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 19:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 19:01	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 19:01	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 19:01	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 19:01	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 19:01	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 19:01	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 19:01	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 19:01	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 19:01	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 19:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 19:01	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 19:01	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 19:01	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 19:01	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 19:01	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 19:01	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 19:01	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 19:01	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 19:01	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 19:01	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 19:01	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 19:01	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 19:01	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 19:01	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 19:01	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 19:01	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 19:01	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 19:01	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 19:01	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 19:01	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 19:01	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 19:01	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 19:01	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 19:01	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 19:01	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 19:01	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 19:01	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 19:01	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 19:01	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 19:01	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 19:01	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 19:01	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 19:01	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 19:01	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 19:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 19:01	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 19:01	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 19:01	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 19:01	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 19:01	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 19:01	1
Toluene-d8 (Surr)	93		80 - 120		03/31/25 19:01	1
4-Bromofluorobenzene (Surr)	99		80 - 120		03/31/25 19:01	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/11/25 12:31	1
1,3,5-Trinitrobenzene	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 18:15	1
1,3-Dinitrobenzene	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/11/25 12:31	1
1,4-Naphthoquinone	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 18:15	1
1,4-phenylenediamine	<10.4	*- *1	10.4	1.98	ug/L		03/31/25 09:00	04/10/25 18:15	1
1-Naphthylamine	<10.4		10.4	2.60	ug/L		03/31/25 09:00	04/10/25 18:15	1
2,3,4,6-Tetrachlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4,5-Trichlorophenol	<10.4		10.4	5.52	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4,6-Trichlorophenol	<10.4		10.4	5.21	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4-Dichlorophenol	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4-Dimethylphenol	<10.4		10.4	0.604	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4-Dinitrophenol	<20.8		20.8	13.5	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,4-Dinitrotoluene	<10.4		10.4	6.67	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,6-Dichlorophenol	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:31	1
2,6-Dinitrotoluene	<10.4		10.4	0.542	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Acetylaminofluorene	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 18:15	1
2-Chloronaphthalene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Chlorophenol	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Methylnaphthalene	<10.4		10.4	0.615	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Methylphenol	<10.4		10.4	0.677	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Naphthylamine	<10.4		10.4	2.19	ug/L		03/31/25 09:00	04/10/25 18:15	1
2-Nitroaniline	<10.4		10.4	6.15	ug/L		03/31/25 09:00	04/11/25 12:31	1
2-Nitrophenol	<10.4		10.4	7.08	ug/L		03/31/25 09:00	04/11/25 12:31	1
3,3'-Dichlorobenzidine	<10.4		10.4	1.46	ug/L		03/31/25 09:00	04/11/25 12:31	1
3,3'-Dimethylbenzidine	<10.4	*1	10.4	1.56	ug/L		03/31/25 09:00	04/11/25 15:56	1
3-Methylcholanthrene	<10.4		10.4	0.333	ug/L		03/31/25 09:00	04/10/25 18:15	1
3-Nitroaniline	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/11/25 12:31	1
4,6-Dinitro-2-methylphenol	<10.4		10.4	7.19	ug/L		03/31/25 09:00	04/11/25 12:31	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Aminobiphenyl	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 18:15	1
4-Bromophenyl phenyl ether	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:31	1
4-Chloro-3-methylphenol	<10.4		10.4	0.875	ug/L		03/31/25 09:00	04/11/25 12:31	1
4-Chloroaniline	<10.4		10.4	0.646	ug/L		03/31/25 09:00	04/11/25 12:31	1
4-Chlorophenyl phenyl ether	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:31	1
Methylphenol, 3 & 4	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:31	1
4-Nitroaniline	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/11/25 12:31	1
4-Nitrophenol	<10.4		10.4	7.92	ug/L		03/31/25 09:00	04/11/25 12:31	1
5-Nitro-o-toluidine	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 18:15	1
7,12-Dimethylbenz(a)anthracene	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 18:15	1
Acenaphthene	<10.4		10.4	0.667	ug/L		03/31/25 09:00	04/11/25 12:31	1
Acenaphthylene	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/11/25 12:31	1
Acetophenone	<10.4		10.4	0.719	ug/L		03/31/25 09:00	04/11/25 12:31	1
Anthracene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzo[a]anthracene	<10.4		10.4	0.885	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzo[a]pyrene	<10.4		10.4	8.44	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzo[b]fluoranthene	<10.4		10.4	5.10	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzo[g,h,i]perylene	<10.4		10.4	6.56	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzo[k]fluoranthene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/11/25 12:31	1
Benzyl alcohol	<10.4		10.4	1.35	ug/L		03/31/25 09:00	04/11/25 12:31	1
Bis(2-chloroethoxy)methane	<10.4		10.4	0.792	ug/L		03/31/25 09:00	04/11/25 12:31	1
Bis(2-chloroethyl)ether	<10.4		10.4	0.854	ug/L		03/31/25 09:00	04/11/25 12:31	1
bis (2-chloroisopropyl) ether	<10.4		10.4	0.563	ug/L		03/31/25 09:00	04/10/25 18:15	1
Bis(2-ethylhexyl) phthalate	<10.4		10.4	5.73	ug/L		03/31/25 09:00	04/11/25 12:31	1
Butyl benzyl phthalate	<10.4		10.4	5.63	ug/L		03/31/25 09:00	04/11/25 12:31	1
Chlorobenzilate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 18:15	1
Chrysene	<10.4		10.4	0.906	ug/L		03/31/25 09:00	04/11/25 12:31	1
Diallate	<10.4		10.4	4.17	ug/L		03/31/25 09:00	04/10/25 18:15	1
Dibenzo(a,h)anthracene	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/11/25 12:31	1
Dibenzofuran	<10.4		10.4	0.771	ug/L		03/31/25 09:00	04/11/25 12:31	1
Diethyl phthalate	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/11/25 12:31	1
Dimethoate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 18:15	1
Dimethyl phthalate	<10.4		10.4	1.04	ug/L		03/31/25 09:00	04/11/25 12:31	1
Di-n-butyl phthalate	<10.4		10.4	5.83	ug/L		03/31/25 09:00	04/11/25 12:31	1
Di-n-octyl phthalate	<20.8		20.8	7.29	ug/L		03/31/25 09:00	04/11/25 12:31	1
Dinoseb	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 18:15	1
Diphenylamine	<10.4		10.4	6.25	ug/L		03/31/25 09:00	04/11/25 12:31	1
Disulfoton	<10.4		10.4	2.50	ug/L		03/31/25 09:00	04/10/25 18:15	1
Ethyl methanesulfonate	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 18:15	1
Ethyl Parathion	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 18:15	1
Famphur	<10.4		10.4	3.96	ug/L		03/31/25 09:00	04/14/25 09:06	1
Fluoranthene	<10.4		10.4	1.77	ug/L		03/31/25 09:00	04/11/25 12:31	1
Fluorene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:31	1
Hexachlorobenzene	<10.4		10.4	0.729	ug/L		03/31/25 09:00	04/11/25 12:31	1
Hexachlorobutadiene	<10.4		10.4	0.896	ug/L		03/31/25 09:00	04/11/25 12:31	1
Hexachlorocyclopentadiene	<10.4		10.4	5.31	ug/L		03/31/25 09:00	04/11/25 12:31	1
Hexachloroethane	<10.4		10.4	1.01	ug/L		03/31/25 09:00	04/11/25 12:31	1
Hexachloropropene	<10.4	*1	10.4	2.71	ug/L		03/31/25 09:00	04/10/25 18:15	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<10.4		10.4	4.38	ug/L		03/31/25 09:00	04/11/25 12:31	1
Isodrin	<10.4		10.4	4.90	ug/L		03/31/25 09:00	04/10/25 18:15	1
Isophorone	<10.4		10.4	0.969	ug/L		03/31/25 09:00	04/11/25 12:31	1
Isosafrole	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 18:15	1
Kepone	<10.4	*+ *1	10.4	1.04	ug/L		03/31/25 09:00	04/10/25 18:15	1
Methapyrilene	<10.4	*1	10.4	0.792	ug/L		03/31/25 09:00	04/10/25 18:15	1
Methyl methanesulfonate	<10.4		10.4	3.44	ug/L		03/31/25 09:00	04/10/25 18:15	1
Methyl parathion	<10.4		10.4	2.40	ug/L		03/31/25 09:00	04/10/25 18:15	1
Nitrobenzene	<10.4		10.4	0.833	ug/L		03/31/25 09:00	04/11/25 12:31	1
N-Nitrosodiethylamine	<10.4		10.4	3.54	ug/L		03/31/25 09:00	04/10/25 18:15	1
N-Nitrosodimethylamine	<10.4		10.4	0.750	ug/L		03/31/25 09:00	04/11/25 12:31	1
N-Nitrosodi-n-butylamine	<10.4		10.4	4.06	ug/L		03/31/25 09:00	04/10/25 18:15	1
N-Nitrosodi-n-propylamine	<10.4		10.4	0.958	ug/L		03/31/25 09:00	04/11/25 12:31	1
N-Nitrosodiphenylamine	<10.4		10.4	0.781	ug/L		03/31/25 09:00	04/11/25 12:31	1
N-Nitrosomethylethylamine	<10.4	*1	10.4	5.10	ug/L		03/31/25 09:00	04/10/25 18:15	1
N-Nitrosopiperidine	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 18:15	1
N-Nitrosopyrrolidine	<10.4		10.4	3.75	ug/L		03/31/25 09:00	04/10/25 18:15	1
o,o',o"-Triethylphosphorothioate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 18:15	1
o-Toluidine	<10.4		10.4	3.02	ug/L		03/31/25 09:00	04/10/25 18:15	1
p-Dimethylamino azobenzene	<10.4		10.4	2.29	ug/L		03/31/25 09:00	04/10/25 18:15	1
Pentachlorobenzene	<10.4	*1	10.4	2.92	ug/L		03/31/25 09:00	04/10/25 18:15	1
Pentachloronitrobenzene	<10.4		10.4	6.04	ug/L		03/31/25 09:00	04/10/25 18:15	1
Pentachlorophenol	<10.4		10.4	10.0	ug/L		03/31/25 09:00	04/11/25 12:31	1
Phenacetin	<10.4		10.4	1.98	ug/L		03/31/25 09:00	04/10/25 18:15	1
Phenanthrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:31	1
Phenol	<10.4		10.4	1.15	ug/L		03/31/25 09:00	04/11/25 12:31	1
Phorate	<10.4		10.4	3.33	ug/L		03/31/25 09:00	04/10/25 18:15	1
Pronamide	<10.4		10.4	2.81	ug/L		03/31/25 09:00	04/10/25 18:15	1
Pyrene	<10.4		10.4	0.823	ug/L		03/31/25 09:00	04/11/25 12:31	1
Safrole	<10.4		10.4	2.92	ug/L		03/31/25 09:00	04/10/25 18:15	1
Thionazin	<10.4		10.4	3.65	ug/L		03/31/25 09:00	04/10/25 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	48		25 - 110	03/31/25 09:00	04/10/25 18:15	1
2-Fluorophenol (Surr)	51		25 - 110	03/31/25 09:00	04/11/25 12:31	1
Phenol-d5 (Surr)	44		21 - 110	03/31/25 09:00	04/10/25 18:15	1
Phenol-d5 (Surr)	45		21 - 110	03/31/25 09:00	04/11/25 12:31	1
Nitrobenzene-d5 (Surr)	65		45 - 129	03/31/25 09:00	04/10/25 18:15	1
Nitrobenzene-d5 (Surr)	65		45 - 129	03/31/25 09:00	04/11/25 12:31	1
2-Fluorobiphenyl (Surr)	58		39 - 118	03/31/25 09:00	04/10/25 18:15	1
2-Fluorobiphenyl (Surr)	57		39 - 118	03/31/25 09:00	04/11/25 12:31	1
2,4,6-Tribromophenol (Surr)	65		27 - 136	03/31/25 09:00	04/10/25 18:15	1
2,4,6-Tribromophenol (Surr)	77		27 - 136	03/31/25 09:00	04/11/25 12:31	1
Terphenyl-d14 (Surr)	71		12 - 144	03/31/25 09:00	04/10/25 18:15	1
Terphenyl-d14 (Surr)	69		12 - 144	03/31/25 09:00	04/11/25 12:31	1

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 13:20	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 13:20	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0900		0.0900	0.0225	ug/L		03/31/25 09:52	04/04/25 18:25	1
4,4'-DDE	<0.0900		0.0900	0.0270	ug/L		03/31/25 09:52	04/04/25 18:25	1
4,4'-DDT	<0.0900		0.0900	0.0180	ug/L		03/31/25 09:52	04/04/25 18:25	1
Aldrin	<0.0900		0.0900	0.0198	ug/L		03/31/25 09:52	04/04/25 18:25	1
alpha-BHC	<0.0900		0.0900	0.00900	ug/L		03/31/25 09:52	04/04/25 18:25	1
beta-BHC	<0.0900		0.0900	0.0378	ug/L		03/31/25 09:52	04/04/25 18:25	1
Chlordane (technical)	<1.80		1.80	0.351	ug/L		03/31/25 09:52	04/04/25 18:25	1
delta-BHC	<0.0900		0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 18:25	1
Dieldrin	<0.0900	+	0.0900	0.0189	ug/L		03/31/25 09:52	04/04/25 18:25	1
Endosulfan I	<0.0900		0.0900	0.0252	ug/L		03/31/25 09:52	04/04/25 18:25	1
Endosulfan II	<0.0900		0.0900	0.0234	ug/L		03/31/25 09:52	04/04/25 18:25	1
Endosulfan sulfate	<0.0900	+	0.0900	0.0162	ug/L		03/31/25 09:52	04/04/25 18:25	1
Endrin	<0.0900	+	0.0900	0.0252	ug/L		03/31/25 09:52	04/04/25 18:25	1
Endrin aldehyde	<0.0900		0.0900	0.0243	ug/L		03/31/25 09:52	04/04/25 18:25	1
gamma-BHC (Lindane)	<0.0900		0.0900	0.00900	ug/L		03/31/25 09:52	04/04/25 18:25	1
Heptachlor	<0.0900		0.0900	0.0207	ug/L		03/31/25 09:52	04/04/25 18:25	1
Heptachlor epoxide	<0.0900	+	0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 18:25	1
Methoxychlor	<0.0900	+	0.0900	0.0288	ug/L		03/31/25 09:52	04/04/25 18:25	1
Toxaphene	<1.80		1.80	0.900	ug/L		03/31/25 09:52	04/04/25 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	139	S1+	10 - 136	03/31/25 09:52	04/04/25 18:25	1
Tetrachloro-m-xylene	104		10 - 130	03/31/25 09:52	04/04/25 18:25	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.80	+	1.80	0.738	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1221	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1232	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1242	<1.80		1.80	0.738	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1248	<1.80		1.80	0.621	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1254	<1.80		1.80	0.621	ug/L		03/31/25 09:52	04/04/25 18:25	1
PCB-1260	<1.80	+	1.80	0.621	ug/L		03/31/25 09:52	04/04/25 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	139	S1+	10 - 136	03/31/25 09:52	04/04/25 18:25	1
Tetrachloro-m-xylene	104		10 - 130	03/31/25 09:52	04/04/25 18:25	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.166		0.166	0.0718	ug/L		04/01/25 15:00	04/02/25 21:19	1
Silvex (2,4,5-TP)	<0.0552		0.0552	0.0243	ug/L		04/01/25 15:00	04/02/25 21:19	1
2,4-D	<0.663		0.663	0.276	ug/L		04/01/25 15:00	04/02/25 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	68		34 - 142	04/01/25 15:00	04/02/25 21:19	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

Method: SW846 8151A - Herbicides (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	63		34 - 142	04/01/25 15:00	04/02/25 21:19	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		04/02/25 09:00	04/04/25 14:31	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 14:31	1
Barium	0.297		0.00200	0.000660	mg/L		04/02/25 09:00	04/04/25 14:31	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 12:40	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 14:31	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 14:31	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 14:31	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 14:31	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 14:31	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 14:31	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/04/25 14:31	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/04/25 14:31	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/04/25 14:31	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/04/25 14:31	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/04/25 14:31	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 14:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	<0.0100		0.0100	0.00350	mg/L		04/03/25 10:02	04/03/25 23:22	1
Sulfide (SW846 9034)	<1.00		1.00	0.231	mg/L		04/01/25 13:16	04/01/25 14:27	1
Total Suspended Solids (USGS I-3765-85)	<8.82	H	8.82	6.18	mg/L			04/02/25 14:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-26

Lab Sample ID: 310-302994-16

Date Collected: 03/25/25 14:42

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:25	1
Barium	0.127		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:25	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:25	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:25	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:25	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:25	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:25	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:25	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<1.00		1.00	0.231	mg/L		04/01/25 13:27	04/01/25 14:45	1
Total Suspended Solids (USGS I-3765-85)	5.49	J H	5.88	4.12	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-36

Lab Sample ID: 310-302994-17

Date Collected: 03/25/25 17:58

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 19:24	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 19:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 19:24	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 19:24	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 19:24	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 19:24	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 19:24	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 19:24	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 19:24	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 19:24	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 19:24	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 19:24	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 19:24	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 19:24	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 19:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 19:24	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 19:24	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 19:24	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 19:24	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 19:24	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 19:24	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 19:24	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 19:24	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 19:24	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 19:24	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 19:24	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 19:24	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 19:24	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 19:24	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 19:24	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 19:24	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 19:24	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 19:24	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 19:24	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 19:24	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 19:24	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 19:24	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 19:24	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 19:24	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 19:24	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 19:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 19:24	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 19:24	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 19:24	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 19:24	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 19:24	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 19:24	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-36

Lab Sample ID: 310-302994-17

Date Collected: 03/25/25 17:58

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		73 - 130		03/31/25 19:24	1
Toluene-d8 (Surr)	93		80 - 120		03/31/25 19:24	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00101	J	0.00200	0.00100	mg/L		04/02/25 09:00	04/07/25 15:51	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 15:51	1
Barium	0.349		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 15:51	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 15:51	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 15:51	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 15:51	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 15:51	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 15:51	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 15:51	1
Nickel	0.00762		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 15:51	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 15:51	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 15:51	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 15:51	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 15:51	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.52	H	6.52	4.57	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-302994-18

Date Collected: 03/26/25 15:20

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 19:46	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 19:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 19:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 19:46	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 19:46	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 19:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 19:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 19:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 19:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 19:46	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 19:46	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 19:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 19:46	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 19:46	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 19:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 19:46	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 19:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 19:46	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 19:46	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 19:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 19:46	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 19:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 19:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 19:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 19:46	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 19:46	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 19:46	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 19:46	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 19:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 19:46	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 19:46	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 19:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 19:46	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 19:46	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 19:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 19:46	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 19:46	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 19:46	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 19:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 19:46	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 19:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 19:46	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 19:46	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 19:46	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 19:46	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 19:46	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 19:46	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-302994-18

Date Collected: 03/26/25 15:20

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 19:46	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 19:46	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 19:46	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		04/02/25 09:00	04/07/25 16:29	1
Arsenic	0.00101	J	0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:29	1
Barium	0.0776		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:29	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:29	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:29	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:29	1
Cobalt	0.000172	J	0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:29	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:29	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:29	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:29	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:29	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:29	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:29	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:29	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	5.10	J	5.88	4.12	mg/L			04/02/25 13:07	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-38

Lab Sample ID: 310-302994-19

Date Collected: 03/26/25 10:23

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 20:09	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 20:09	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 20:09	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 20:09	1
1,1-Dichloroethane	0.828	J	1.00	0.220	ug/L			03/31/25 20:09	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 20:09	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 20:09	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 20:09	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 20:09	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 20:09	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 20:09	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 20:09	1
1,4-Dichlorobenzene	2.22		1.00	0.230	ug/L			03/31/25 20:09	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 20:09	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 20:09	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 20:09	1
Acetone	11.6		10.0	3.10	ug/L			03/31/25 20:09	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 20:09	1
Benzene	5.64		0.500	0.220	ug/L			03/31/25 20:09	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 20:09	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 20:09	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 20:09	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 20:09	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 20:09	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 20:09	1
Chlorobenzene	19.1		1.00	0.400	ug/L			03/31/25 20:09	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 20:09	1
Chloroethane	2.22	J	4.00	0.790	ug/L			03/31/25 20:09	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 20:09	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 20:09	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 20:09	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 20:09	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 20:09	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 20:09	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 20:09	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 20:09	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 20:09	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 20:09	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 20:09	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 20:09	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 20:09	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 20:09	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 20:09	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 20:09	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 20:09	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 20:09	1
Xylenes, Total	0.898	J	3.00	0.400	ug/L			03/31/25 20:09	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-38

Lab Sample ID: 310-302994-19

Date Collected: 03/26/25 10:23

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 20:09	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 20:09	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 20:09	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	<0.0907		0.0907	0.0254	ug/L		03/31/25 09:52	04/04/25 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	142	S1+	10 - 136	03/31/25 09:52	04/04/25 18:38	1
Tetrachloro-m-xylene (Surr)	89		10 - 130	03/31/25 09:52	04/04/25 18:38	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		04/02/25 09:00	04/07/25 16:44	1
Arsenic	0.0361		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:44	1
Barium	16.5		0.0200	0.00660	mg/L		04/02/25 09:00	04/08/25 12:16	10
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:44	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:44	1
Chromium	0.00200 J		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:44	1
Cobalt	0.0357		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:44	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:44	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:44	1
Nickel	0.0712		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:44	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:44	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:44	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:44	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:44	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	85.0		9.38	6.56	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-302994-20

Date Collected: 03/25/25 13:51

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 20:32	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 20:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 20:32	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 20:32	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 20:32	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 20:32	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 20:32	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 20:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 20:32	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 20:32	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 20:32	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 20:32	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 20:32	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 20:32	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 20:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 20:32	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 20:32	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 20:32	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 20:32	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 20:32	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 20:32	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 20:32	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 20:32	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 20:32	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 20:32	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 20:32	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 20:32	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 20:32	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 20:32	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 20:32	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 20:32	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 20:32	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 20:32	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 20:32	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 20:32	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 20:32	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 20:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 20:32	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 20:32	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 20:32	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 20:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 20:32	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 20:32	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 20:32	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 20:32	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 20:32	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 20:32	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-302994-20

Date Collected: 03/25/25 13:51

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 20:32	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 20:32	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 20:32	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	<0.0891		0.0891	0.0249	ug/L		03/31/25 09:52	04/04/25 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	140	S1+	10 - 136	03/31/25 09:52	04/04/25 18:51	1
Tetrachloro-m-xylene (Surr)	90		10 - 130	03/31/25 09:52	04/04/25 18:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00108	J	0.00200	0.00100	mg/L		04/02/25 09:00	04/07/25 16:53	1
Arsenic	0.00168	J	0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:53	1
Barium	0.151		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:53	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:53	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:53	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:53	1
Cobalt	0.00105		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:53	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:53	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:53	1
Nickel	0.00822		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:53	1
Selenium	0.00987		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:53	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:53	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:53	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:53	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.25	H	6.25	4.38	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D1

Lab Sample ID: 310-302994-21

Date Collected: 03/25/25 11:21

Matrix: Water

Date Received: 03/28/25 16:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:03	1
Barium	0.0624		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:03	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:03	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:03	1
Cobalt	0.000186	J	0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:03	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:03	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:03	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:03	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.12	H	6.12	4.29	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D2

Lab Sample ID: 310-302994-22

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

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			03/31/25 20:54	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 20:54	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 20:54	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 20:54	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 20:54	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 20:54	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 20:54	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 20:54	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 20:54	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 20:54	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 20:54	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 20:54	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 20:54	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 20:54	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 20:54	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 20:54	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 20:54	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 20:54	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 20:54	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 20:54	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 20:54	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 20:54	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 20:54	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 20:54	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 20:54	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 20:54	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 20:54	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 20:54	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 20:54	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 20:54	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 20:54	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 20:54	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 20:54	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 20:54	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 20:54	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 20:54	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 20:54	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 20:54	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 20:54	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 20:54	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 20:54	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 20:54	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 20:54	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 20:54	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 20:54	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 20:54	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 20:54	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D2

Lab Sample ID: 310-302994-22

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		73 - 130		03/31/25 20:54	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 20:54	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 20:54	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		04/02/25 09:00	04/07/25 16:08	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 16:08	1
Barium	0.251		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 16:08	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 16:08	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 16:08	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 16:08	1
Cobalt	0.000198	J	0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 16:08	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 16:08	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 16:08	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 16:08	1
Selenium	0.00260	J	0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 16:08	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 16:08	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 16:08	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 16:08	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 16:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<6.38	H	6.38	4.47	mg/L			04/02/25 12:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-302994-23

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 01:04	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 01:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 01:04	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 01:04	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 01:04	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 01:04	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 01:04	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 01:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 01:04	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 01:04	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 01:04	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 01:04	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 01:04	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 01:04	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 01:04	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 01:04	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 01:04	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 01:04	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 01:04	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 01:04	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 01:04	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 01:04	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 01:04	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 01:04	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 01:04	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 01:04	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 01:04	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 01:04	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 01:04	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 01:04	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 01:04	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 01:04	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 01:04	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 01:04	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 01:04	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 01:04	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 01:04	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 01:04	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 01:04	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 01:04	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 01:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 01:04	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 01:04	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 01:04	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 01:04	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 01:04	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 01:04	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-302994-23

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	109		73 - 130		04/01/25 01:04	1
<i>Toluene-d8 (Surr)</i>	95		80 - 120		04/01/25 01:04	1
<i>4-Bromofluorobenzene (Surr)</i>	99		80 - 120		04/01/25 01:04	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-302994-24

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 01:26	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 01:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 01:26	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 01:26	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 01:26	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 01:26	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 01:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 01:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 01:26	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 01:26	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 01:26	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 01:26	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 01:26	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 01:26	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 01:26	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 01:26	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 01:26	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 01:26	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 01:26	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 01:26	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 01:26	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 01:26	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 01:26	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 01:26	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 01:26	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 01:26	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 01:26	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 01:26	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 01:26	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 01:26	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 01:26	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 01:26	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 01:26	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 01:26	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 01:26	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 01:26	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 01:26	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 01:26	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 01:26	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 01:26	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 01:26	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 01:26	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 01:26	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 01:26	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 01:26	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 01:26	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 01:26	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-302994-24

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	108		73 - 130		04/01/25 01:26	1
<i>Toluene-d8 (Surr)</i>	94		80 - 120		04/01/25 01:26	1
<i>4-Bromofluorobenzene (Surr)</i>	98		80 - 120		04/01/25 01:26	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-302994-25

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 01:49	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 01:49	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 01:49	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 01:49	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 01:49	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 01:49	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 01:49	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 01:49	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 01:49	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 01:49	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 01:49	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 01:49	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 01:49	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 01:49	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 01:49	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 01:49	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 01:49	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 01:49	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 01:49	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 01:49	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 01:49	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 01:49	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 01:49	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 01:49	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 01:49	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 01:49	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 01:49	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 01:49	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 01:49	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 01:49	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 01:49	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 01:49	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 01:49	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 01:49	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 01:49	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 01:49	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 01:49	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 01:49	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 01:49	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 01:49	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 01:49	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 01:49	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 01:49	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 01:49	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 01:49	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 01:49	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 01:49	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-302994-25

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	109		73 - 130		04/01/25 01:49	1
<i>Toluene-d8 (Surr)</i>	94		80 - 120		04/01/25 01:49	1
<i>4-Bromofluorobenzene (Surr)</i>	99		80 - 120		04/01/25 01:49	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 4

Lab Sample ID: 310-302994-26

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 02:12	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 02:12	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 02:12	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 02:12	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 02:12	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 02:12	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 02:12	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 02:12	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 02:12	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 02:12	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 02:12	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 02:12	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 02:12	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 02:12	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 02:12	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 02:12	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 02:12	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 02:12	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 02:12	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 02:12	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 02:12	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 02:12	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 02:12	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 02:12	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 02:12	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 02:12	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 02:12	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 02:12	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 02:12	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 02:12	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 02:12	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 02:12	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 02:12	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 02:12	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 02:12	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 02:12	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 02:12	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 02:12	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 02:12	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 02:12	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 02:12	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 02:12	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 02:12	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 02:12	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 02:12	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 02:12	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 02:12	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 4

Lab Sample ID: 310-302994-26

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	106		73 - 130		04/01/25 02:12	1
<i>Toluene-d8 (Surr)</i>	95		80 - 120		04/01/25 02:12	1
<i>4-Bromofluorobenzene (Surr)</i>	98		80 - 120		04/01/25 02:12	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 5

Lab Sample ID: 310-302994-27

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 02:35	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 02:35	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 02:35	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 02:35	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 02:35	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 02:35	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 02:35	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 02:35	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 02:35	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 02:35	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 02:35	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 02:35	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 02:35	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 02:35	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 02:35	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 02:35	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 02:35	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 02:35	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 02:35	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 02:35	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 02:35	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 02:35	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 02:35	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 02:35	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 02:35	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 02:35	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 02:35	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 02:35	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 02:35	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 02:35	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 02:35	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 02:35	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 02:35	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 02:35	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 02:35	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 02:35	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 02:35	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 02:35	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 02:35	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 02:35	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 02:35	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 02:35	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 02:35	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 02:35	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 02:35	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 02:35	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 02:35	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 5

Lab Sample ID: 310-302994-27

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	107		73 - 130		04/01/25 02:35	1
<i>Toluene-d8 (Surr)</i>	94		80 - 120		04/01/25 02:35	1
<i>4-Bromofluorobenzene (Surr)</i>	97		80 - 120		04/01/25 02:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 6

Lab Sample ID: 310-302994-28

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 02:58	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 02:58	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 02:58	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 02:58	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 02:58	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 02:58	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 02:58	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 02:58	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 02:58	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 02:58	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 02:58	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 02:58	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 02:58	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 02:58	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 02:58	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 02:58	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 02:58	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 02:58	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 02:58	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 02:58	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 02:58	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 02:58	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 02:58	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 02:58	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 02:58	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 02:58	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 02:58	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 02:58	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 02:58	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 02:58	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 02:58	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 02:58	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 02:58	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 02:58	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 02:58	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 02:58	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 02:58	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 02:58	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 02:58	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 02:58	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 02:58	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 02:58	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 02:58	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 02:58	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 02:58	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 02:58	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 02:58	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 6

Lab Sample ID: 310-302994-28

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	108		73 - 130		04/01/25 02:58	1
<i>Toluene-d8 (Surr)</i>	94		80 - 120		04/01/25 02:58	1
<i>4-Bromofluorobenzene (Surr)</i>	96		80 - 120		04/01/25 02:58	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 7

Lab Sample ID: 310-302994-29

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

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			04/01/25 03:21	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			04/01/25 03:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			04/01/25 03:21	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			04/01/25 03:21	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			04/01/25 03:21	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			04/01/25 03:21	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			04/01/25 03:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			04/01/25 03:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			04/01/25 03:21	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			04/01/25 03:21	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			04/01/25 03:21	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			04/01/25 03:21	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			04/01/25 03:21	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			04/01/25 03:21	1
2-Hexanone	<10.0		10.0	2.00	ug/L			04/01/25 03:21	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			04/01/25 03:21	1
Acetone	<10.0		10.0	3.10	ug/L			04/01/25 03:21	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			04/01/25 03:21	1
Benzene	<0.500		0.500	0.220	ug/L			04/01/25 03:21	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			04/01/25 03:21	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			04/01/25 03:21	1
Bromoform	<5.00		5.00	0.780	ug/L			04/01/25 03:21	1
Bromomethane	<4.00		4.00	1.10	ug/L			04/01/25 03:21	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			04/01/25 03:21	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			04/01/25 03:21	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			04/01/25 03:21	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			04/01/25 03:21	1
Chloroethane	<4.00		4.00	0.790	ug/L			04/01/25 03:21	1
Chloroform	<3.00		3.00	1.30	ug/L			04/01/25 03:21	1
Chloromethane	<3.00		3.00	0.610	ug/L			04/01/25 03:21	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			04/01/25 03:21	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			04/01/25 03:21	1
Dibromomethane	<1.00		1.00	0.330	ug/L			04/01/25 03:21	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			04/01/25 03:21	1
Iodomethane	<10.0		10.0	7.00	ug/L			04/01/25 03:21	1
Methylene chloride	<5.00		5.00	1.70	ug/L			04/01/25 03:21	1
Styrene	<1.00		1.00	0.370	ug/L			04/01/25 03:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			04/01/25 03:21	1
Toluene	<1.00		1.00	0.430	ug/L			04/01/25 03:21	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			04/01/25 03:21	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			04/01/25 03:21	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			04/01/25 03:21	1
Trichloroethene	<1.00		1.00	0.430	ug/L			04/01/25 03:21	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			04/01/25 03:21	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			04/01/25 03:21	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			04/01/25 03:21	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			04/01/25 03:21	1

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Client Sample Results

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 7

Lab Sample ID: 310-302994-29

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Dibromofluoromethane (Surr)</i>	108		73 - 130		04/01/25 03:21	1
<i>Toluene-d8 (Surr)</i>	95		80 - 120		04/01/25 03:21	1
<i>4-Bromofluorobenzene (Surr)</i>	99		80 - 120		04/01/25 03:21	1

Definitions/Glossary

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

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

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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

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Definitions/Glossary

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (73-130)	TOL (80-120)	BFB (80-120)
310-302994-3	MW-2	107	95	99
310-302994-4	MW-4	108	95	97
310-302994-5	MW-9	107	94	98
310-302994-6	MW-10A	107	94	98
310-302994-7	MW-11	107	95	98
310-302994-8	MW-12R	106	94	96
310-302994-9	MW-13	107	94	97
310-302994-12	MW-22	109	95	98
310-302994-13	MW-23	108	95	98
310-302994-14	MW-24	108	93	97
310-302994-15	MW-25	108	93	99
310-302994-17	MW-36	107	93	98
310-302994-18	MW-37	108	94	97
310-302994-19	MW-38	108	94	98
310-302994-20	MW-39	108	94	97
310-302994-22	MW-D2	108	94	98
310-302994-23	Trip Blank 1	109	95	99
310-302994-24	Trip Blank 2	108	94	98
310-302994-25	Trip Blank 3	109	94	99
310-302994-26	Trip Blank 4	106	95	98
310-302994-27	Trip Blank 5	107	94	97
310-302994-28	Trip Blank 6	108	94	96
310-302994-29	Trip Blank 7	108	95	99
LCS 310-450214/7	Lab Control Sample	101	96	96
LCS 310-450214/8	Lab Control Sample	107	95	98
LCS 310-450265/7	Lab Control Sample	102	97	97
LCS 310-450265/8	Lab Control Sample	108	94	98
MB 310-450214/6	Method Blank	106	94	97
MB 310-450265/6	Method Blank	109	94	98

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (25-110)	PHL (21-110)	NBZ (45-129)	FBP (39-118)	TBP (27-136)	TPHL (12-144)
310-302994-3	MW-2	56	52	76	70	69	83
310-302994-3	MW-2	49	48	74	60	69	74
310-302994-6	MW-10A	73	69	98	87	94	109
310-302994-6	MW-10A	65	64	96	77	94	104
310-302994-7	MW-11	62	56	80	78	76	88
310-302994-7	MW-11	54	51	77	61	68	72
310-302994-12	MW-22	51	50	73	68	58	76
310-302994-12	MW-22	42	42	66	56	48	59

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Surrogate Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (25-110)	PHL (21-110)	NBZ (45-129)	FBP (39-118)	TBP (27-136)	TPHL (12-144)
310-302994-14	MW-24	63	58	86	73	88	90
310-302994-14	MW-24	65	60	88	76	108	87
310-302994-15	MW-25	48	44	65	58	65	71
310-302994-15	MW-25	51	45	65	57	77	69
LCS 310-450191/2-A	Lab Control Sample	59	45	75	65	78	77
LCS 310-450191/2-A	Lab Control Sample	53	46	71	60	78	72
LCSD 310-450191/3-A	Lab Control Sample Dup	67	50	80	68	83	82
LCSD 310-450191/3-A	Lab Control Sample Dup	62	56	79	64	84	77
MB 310-450191/1-A	Method Blank	75	61	96	84	88	98
MB 310-450191/1-A	Method Blank	67	58	94	74	97	95

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
 PHL = Phenol-d5 (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 TBP = 2,4,6-Tribromophenol (Surr)
 TPHL = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCB1 (10-136)	TCX1 (10-130)	TCX1 (10-130)
310-302994-3	MW-2	152 S1+	87	87
310-302994-6	MW-10A	145 S1+	92	92
310-302994-7	MW-11	137 S1+	90	90
310-302994-12	MW-22	137 S1+	97	97
310-302994-14	MW-24	196 S1+	130	130
310-302994-15	MW-25	139 S1+	104	104
310-302994-19	MW-38	142 S1+	89	89
310-302994-20	MW-39	140 S1+	90	90
LB 310-449979/1-E	Method Blank	214 S1+	123	123
LCS 310-450201/3-A	Lab Control Sample	169 S1+	117	117
MB 310-450201/1-A	Method Blank	143 S1+	92	92

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
 TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (10-136)	TCX1 (10-130)
310-302994-3	MW-2	152 S1+	87
310-302994-3 MS	MW-2	142 S1+	74
310-302994-3 MSD	MW-2	158 S1+	98
310-302994-6	MW-10A	145 S1+	92

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Surrogate Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-136)	TCX1 (10-130)
310-302994-7	MW-11	137 S1+	90
310-302994-12	MW-22	137 S1+	97
310-302994-14	MW-24	196 S1+	130
310-302994-15	MW-25	139 S1+	104
LCS 310-450201/24-A	Lab Control Sample	176 S1+	105
MB 310-450201/1-A	Method Blank	143 S1+	92

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (34-142)	DCPAA2 (34-142)
310-302994-3	MW-2	75	69
310-302994-6	MW-10A	72	68
310-302994-7	MW-11	48	45
310-302994-12	MW-22	60	57
310-302994-14	MW-24	61	60
310-302994-15	MW-25	68	63
LCS 410-624734/2-A	Lab Control Sample	73	72
LCS 410-624734/2-A - DL	Lab Control Sample	90	89
LCS 410-625334/2-A	Lab Control Sample	78	76
LCS 410-625334/2-A - DL	Lab Control Sample	82	81
LCS 410-626533/2-A	Lab Control Sample	76	73
LCS 410-626533/2-A - DL	Lab Control Sample	96	91
LCSD 410-624734/3-A - DL	Lab Control Sample Dup	93	89
LCSD 410-624734/3-A	Lab Control Sample Dup	79	76
LCSD 410-625334/3-A	Lab Control Sample Dup	68	67
LCSD 410-625334/3-A - DL	Lab Control Sample Dup	85	83
LCSD 410-626533/3-A	Lab Control Sample Dup	77	73
LCSD 410-626533/3-A - DL	Lab Control Sample Dup	90	89
MB 410-624734/1-A	Method Blank	68	65
MB 410-625334/1-A	Method Blank	74	70
MB 410-626533/1-A	Method Blank	72	65

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-450214/6

Matrix: Water

Analysis Batch: 450214

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			03/31/25 12:34	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 12:34	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 12:34	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 12:34	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 12:34	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 12:34	1
1,1-Dichloropropene	<1.00		1.00	0.430	ug/L			03/31/25 12:34	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 12:34	1
1,2,4-Trichlorobenzene	<5.00		5.00	0.750	ug/L			03/31/25 12:34	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 12:34	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 12:34	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 12:34	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 12:34	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 12:34	1
1,3-Dichlorobenzene	<1.00		1.00	0.300	ug/L			03/31/25 12:34	1
1,3-Dichloropropane	<1.00		1.00	0.400	ug/L			03/31/25 12:34	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 12:34	1
2,2-Dichloropropane	<4.00		4.00	0.690	ug/L			03/31/25 12:34	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 12:34	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 12:34	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 12:34	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 12:34	1
Acrolein	<10.0		10.0	3.60	ug/L			03/31/25 12:34	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 12:34	1
Allyl chloride	<2.00		2.00	0.700	ug/L			03/31/25 12:34	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 12:34	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 12:34	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 12:34	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 12:34	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 12:34	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 12:34	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 12:34	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 12:34	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 12:34	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 12:34	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 12:34	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 12:34	1
Chloroprene	<1.00		1.00	0.230	ug/L			03/31/25 12:34	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 12:34	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 12:34	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 12:34	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			03/31/25 12:34	1
Ethyl methacrylate	<2.00		2.00	0.680	ug/L			03/31/25 12:34	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 12:34	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 12:34	1
Methacrylonitrile	<10.0		10.0	3.30	ug/L			03/31/25 12:34	1
Methyl methacrylate	<2.00		2.00	0.760	ug/L			03/31/25 12:34	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-450214/6

Matrix: Water

Analysis Batch: 450214

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 12:34	1
Naphthalene	<5.00		5.00	3.00	ug/L			03/31/25 12:34	1
Propionitrile	<10.0		10.0	3.40	ug/L			03/31/25 12:34	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 12:34	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 12:34	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 12:34	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 12:34	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 12:34	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 12:34	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 12:34	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 12:34	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 12:34	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 12:34	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 12:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		73 - 130		03/31/25 12:34	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 12:34	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/31/25 12:34	1

Lab Sample ID: LCS 310-450214/7

Matrix: Water

Analysis Batch: 450214

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	19.85		ug/L		99	71 - 120
1,1,1-Trichloroethane	20.0	21.35		ug/L		107	73 - 129
1,1,2,2-Tetrachloroethane	20.0	18.41		ug/L		92	68 - 124
1,1,2-Trichloroethane	20.0	18.93		ug/L		95	73 - 123
1,1-Dichloroethane	20.0	20.38		ug/L		102	70 - 127
1,1-Dichloroethene	20.0	21.14		ug/L		106	63 - 132
1,1-Dichloropropene	20.0	21.46		ug/L		107	69 - 132
1,2,3-Trichloropropane	20.0	18.17		ug/L		91	65 - 127
1,2,4-Trichlorobenzene	20.0	17.20		ug/L		86	68 - 124
1,2-Dibromo-3-chloropropane	20.0	17.04		ug/L		85	50 - 150
1,2-Dibromoethane (EDB)	20.0	19.07		ug/L		95	75 - 125
1,2-Dichlorobenzene	20.0	17.58		ug/L		88	74 - 120
1,2-Dichloroethane	20.0	20.21		ug/L		101	71 - 125
1,2-Dichloropropane	20.0	21.18		ug/L		106	73 - 124
1,3-Dichlorobenzene	20.0	18.11		ug/L		91	72 - 120
1,3-Dichloropropane	20.0	20.52		ug/L		103	72 - 125
1,4-Dichlorobenzene	20.0	17.65		ug/L		88	72 - 120
2,2-Dichloropropane	20.0	22.90		ug/L		115	50 - 150
2-Butanone (MEK)	40.0	35.76		ug/L		89	50 - 150
2-Hexanone	40.0	36.92		ug/L		92	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	36.53		ug/L		91	60 - 139
Acetone	40.0	35.57		ug/L		89	50 - 150

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450214/7

Matrix: Water

Analysis Batch: 450214

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acrolein	94.8	97.65		ug/L		103	49 - 150
Acrylonitrile	200	198.6		ug/L		99	50 - 150
Allyl chloride	20.0	20.99		ug/L		105	49 - 150
Benzene	20.0	20.95		ug/L		105	72 - 124
Bromochloromethane	20.0	20.65		ug/L		103	73 - 130
Bromodichloromethane	20.0	20.73		ug/L		104	74 - 122
Bromoform	20.0	19.26		ug/L		96	61 - 122
Carbon disulfide	20.0	20.07		ug/L		100	59 - 135
Carbon tetrachloride	20.0	21.93		ug/L		110	67 - 132
Chlorobenzene	20.0	18.79		ug/L		94	76 - 120
Chlorodibromomethane	20.0	19.15		ug/L		96	71 - 121
Chloroform	20.0	19.75		ug/L		99	72 - 125
Chloroprene	20.0	21.83		ug/L		109	69 - 133
cis-1,2-Dichloroethene	20.0	20.39		ug/L		102	74 - 123
cis-1,3-Dichloropropene	20.0	19.19		ug/L		96	71 - 125
Dibromomethane	20.0	20.12		ug/L		101	74 - 125
Ethyl methacrylate	20.0	19.29		ug/L		96	70 - 129
Ethylbenzene	20.0	19.55		ug/L		98	74 - 122
Iodomethane	20.0	18.03		ug/L		90	10 - 150
Methacrylonitrile	200	201.6		ug/L		101	69 - 129
Methyl methacrylate	40.0	44.67		ug/L		112	68 - 131
Methylene chloride	20.0	20.15		ug/L		101	50 - 150
Naphthalene	20.0	16.30		ug/L		81	50 - 150
Propionitrile	200	195.7		ug/L		98	63 - 135
Styrene	20.0	19.44		ug/L		97	74 - 121
Tetrachloroethene	20.0	20.18		ug/L		101	71 - 130
Toluene	20.0	19.17		ug/L		96	74 - 123
trans-1,2-Dichloroethene	20.0	20.58		ug/L		103	70 - 126
trans-1,3-Dichloropropene	20.0	19.60		ug/L		98	69 - 123
trans-1,4-Dichloro-2-butene	20.0	19.42		ug/L		97	50 - 150
Trichloroethene	20.0	21.04		ug/L		105	72 - 126
Vinyl acetate	40.0	41.17		ug/L		103	50 - 150
Xylenes, Total	40.0	38.68		ug/L		97	73 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		73 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	96		80 - 120

Lab Sample ID: LCS 310-450214/8

Matrix: Water

Analysis Batch: 450214

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	14.73		ug/L		74	23 - 150
Chloroethane	20.0	22.99		ug/L		115	54 - 136
Chloromethane	20.0	14.97		ug/L		75	38 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450214/8

Matrix: Water

Analysis Batch: 450214

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	20.0	26.65		ug/L		133	39 - 150
Trichlorofluoromethane	20.0	25.18		ug/L		126	54 - 149
Vinyl chloride	20.0	22.93		ug/L		115	56 - 140

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	107		73 - 130
Toluene-d8 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: MB 310-450265/6

Matrix: Water

Analysis Batch: 450265

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/31/25 23:55	1
1,1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/31/25 23:55	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/31/25 23:55	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/31/25 23:55	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/31/25 23:55	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/31/25 23:55	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/31/25 23:55	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			03/31/25 23:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			03/31/25 23:55	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/31/25 23:55	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/31/25 23:55	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/31/25 23:55	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/31/25 23:55	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/31/25 23:55	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/31/25 23:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/31/25 23:55	1
Acetone	<10.0		10.0	3.10	ug/L			03/31/25 23:55	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			03/31/25 23:55	1
Benzene	<0.500		0.500	0.220	ug/L			03/31/25 23:55	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/31/25 23:55	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/31/25 23:55	1
Bromoform	<5.00		5.00	0.780	ug/L			03/31/25 23:55	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/31/25 23:55	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/31/25 23:55	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/31/25 23:55	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/31/25 23:55	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/31/25 23:55	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/31/25 23:55	1
Chloroform	<3.00		3.00	1.30	ug/L			03/31/25 23:55	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/31/25 23:55	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/31/25 23:55	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/31/25 23:55	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/31/25 23:55	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-450265/6

Matrix: Water

Analysis Batch: 450265

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/31/25 23:55	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/31/25 23:55	1
Methylene chloride	<5.00		5.00	1.70	ug/L			03/31/25 23:55	1
Styrene	<1.00		1.00	0.370	ug/L			03/31/25 23:55	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/31/25 23:55	1
Toluene	<1.00		1.00	0.430	ug/L			03/31/25 23:55	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/31/25 23:55	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/31/25 23:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/31/25 23:55	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/31/25 23:55	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/31/25 23:55	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/31/25 23:55	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/31/25 23:55	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/31/25 23:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		73 - 130		03/31/25 23:55	1
Toluene-d8 (Surr)	94		80 - 120		03/31/25 23:55	1
4-Bromofluorobenzene (Surr)	98		80 - 120		03/31/25 23:55	1

Lab Sample ID: LCS 310-450265/7

Matrix: Water

Analysis Batch: 450265

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	21.35		ug/L		107	71 - 120
1,1,1-Trichloroethane	20.0	22.79		ug/L		114	73 - 129
1,1,2,2-Tetrachloroethane	20.0	20.47		ug/L		102	68 - 124
1,1,2-Trichloroethane	20.0	20.92		ug/L		105	73 - 123
1,1-Dichloroethane	20.0	21.90		ug/L		110	70 - 127
1,1-Dichloroethene	20.0	22.48		ug/L		112	63 - 132
1,2,3-Trichloropropane	20.0	19.98		ug/L		100	65 - 127
1,2-Dibromo-3-chloropropane	20.0	19.23		ug/L		96	50 - 150
1,2-Dibromoethane (EDB)	20.0	21.25		ug/L		106	75 - 125
1,2-Dichlorobenzene	20.0	19.84		ug/L		99	74 - 120
1,2-Dichloroethane	20.0	21.96		ug/L		110	71 - 125
1,2-Dichloropropane	20.0	22.90		ug/L		114	73 - 124
1,4-Dichlorobenzene	20.0	19.68		ug/L		98	72 - 120
2-Butanone (MEK)	40.0	43.93		ug/L		110	50 - 150
2-Hexanone	40.0	41.93		ug/L		105	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	41.70		ug/L		104	60 - 139
Acetone	40.0	41.13		ug/L		103	50 - 150
Acrylonitrile	200	223.0		ug/L		112	50 - 150
Benzene	20.0	22.53		ug/L		113	72 - 124
Bromochloromethane	20.0	22.33		ug/L		112	73 - 130
Bromodichloromethane	20.0	22.35		ug/L		112	74 - 122
Bromoform	20.0	20.82		ug/L		104	61 - 122

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450265/7

Matrix: Water

Analysis Batch: 450265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Carbon disulfide	20.0	21.22		ug/L		106	59 - 135
Carbon tetrachloride	20.0	23.46		ug/L		117	67 - 132
Chlorobenzene	20.0	20.45		ug/L		102	76 - 120
Chlorodibromomethane	20.0	20.93		ug/L		105	71 - 121
Chloroform	20.0	21.51		ug/L		108	72 - 125
cis-1,2-Dichloroethene	20.0	21.70		ug/L		109	74 - 123
cis-1,3-Dichloropropene	20.0	20.18		ug/L		101	71 - 125
Dibromomethane	20.0	21.90		ug/L		110	74 - 125
Ethylbenzene	20.0	21.08		ug/L		105	74 - 122
Iodomethane	20.0	15.10		ug/L		76	10 - 150
Methylene chloride	20.0	21.87		ug/L		109	50 - 150
Styrene	20.0	20.92		ug/L		105	74 - 121
Tetrachloroethene	20.0	21.71		ug/L		109	71 - 130
Toluene	20.0	20.78		ug/L		104	74 - 123
trans-1,2-Dichloroethene	20.0	21.84		ug/L		109	70 - 126
trans-1,3-Dichloropropene	20.0	20.16		ug/L		101	69 - 123
trans-1,4-Dichloro-2-butene	20.0	20.91		ug/L		105	50 - 150
Trichloroethene	20.0	22.83		ug/L		114	72 - 126
Vinyl acetate	40.0	43.15		ug/L		108	50 - 150
Xylenes, Total	40.0	41.71		ug/L		104	73 - 123

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	102		73 - 130
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120

Lab Sample ID: LCS 310-450265/8

Matrix: Water

Analysis Batch: 450265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Bromomethane	20.0	19.14		ug/L		96	23 - 150
Chloroethane	20.0	25.63		ug/L		128	54 - 136
Chloromethane	20.0	18.77		ug/L		94	38 - 150
Trichlorofluoromethane	20.0	27.49		ug/L		137	54 - 149
Vinyl chloride	20.0	25.79		ug/L		129	56 - 140

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	108		73 - 130
Toluene-d8 (Surr)	94		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/02/25 00:31	1
1,3,5-Trinitrobenzene	NC		10.0	2.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
1,3-Dinitrobenzene	<10.0		10.0	3.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
1,4-Naphthoquinone	NC		10.0	3.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
1,4-phenylenediamine	NC		10.0	1.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
1-Naphthylamine	NC		10.0	2.50	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,3,4,6-Tetrachlorophenol	<10.0		10.0	5.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4,5-Trichlorophenol	<10.0		10.0	5.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4,6-Trichlorophenol	<10.0		10.0	5.00	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4-Dichlorophenol	<10.0		10.0	0.850	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4-Dimethylphenol	<10.0		10.0	0.580	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4-Dinitrophenol	<20.0		20.0	13.0	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,4-Dinitrotoluene	<10.0		10.0	6.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,6-Dichlorophenol	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/02/25 00:31	1
2,6-Dinitrotoluene	<10.0		10.0	0.520	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Acetylaminofluorene	NC		10.0	2.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Chloronaphthalene	<10.0		10.0	0.640	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Chlorophenol	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Methylnaphthalene	<10.0		10.0	0.590	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Methylphenol	<10.0		10.0	0.650	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Naphthylamine	NC		10.0	2.10	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Nitroaniline	<10.0		10.0	5.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
2-Nitrophenol	<10.0		10.0	6.80	ug/L		03/31/25 09:00	04/02/25 00:31	1
3,3'-Dichlorobenzidine	<10.0		10.0	1.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
3,3'-Dimethylbenzidine	NC		10.0	1.50	ug/L		03/31/25 09:00	04/02/25 00:31	1
3-Methylcholanthrene	NC		10.0	0.320	ug/L		03/31/25 09:00	04/02/25 00:31	1
3-Nitroaniline	<10.0		10.0	2.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
4,6-Dinitro-2-methylphenol	<10.0		10.0	6.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Aminobiphenyl	NC		10.0	2.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Bromophenyl phenyl ether	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Chloro-3-methylphenol	<10.0		10.0	0.840	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Chloroaniline	<10.0		10.0	0.620	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Chlorophenyl phenyl ether	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/02/25 00:31	1
Methylphenol, 3 & 4	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Nitroaniline	<10.0		10.0	1.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
4-Nitrophenol	<10.0		10.0	7.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
5-Nitro-o-toluidine	NC		10.0	2.80	ug/L		03/31/25 09:00	04/02/25 00:31	1
7,12-Dimethylbenz(a)anthracene	NC		10.0	1.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
Acenaphthene	<10.0		10.0	0.640	ug/L		03/31/25 09:00	04/02/25 00:31	1
Acenaphthylene	<10.0		10.0	0.720	ug/L		03/31/25 09:00	04/02/25 00:31	1
Acetophenone	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/02/25 00:31	1
Anthracene	<10.0		10.0	0.870	ug/L		03/31/25 09:00	04/02/25 00:31	1
Benzo[a]anthracene	<10.0		10.0	0.850	ug/L		03/31/25 09:00	04/02/25 00:31	1
Benzo[a]pyrene	<10.0		10.0	8.10	ug/L		03/31/25 09:00	04/02/25 00:31	1
Benzo[b]fluoranthene	<10.0		10.0	4.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
Benzo[g,h,i]perylene	<10.0		10.0	6.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
Benzo[k]fluoranthene	<10.0		10.0	2.20	ug/L		03/31/25 09:00	04/02/25 00:31	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	<10.0		10.0	1.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
Bis(2-chloroethoxy)methane	<10.0		10.0	0.760	ug/L		03/31/25 09:00	04/02/25 00:31	1
Bis(2-chloroethyl)ether	<10.0		10.0	0.820	ug/L		03/31/25 09:00	04/02/25 00:31	1
bis (2-chloroisopropyl) ether	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/02/25 00:31	1
Bis(2-ethylhexyl) phthalate	<10.0		10.0	5.50	ug/L		03/31/25 09:00	04/02/25 00:31	1
Butyl benzyl phthalate	<10.0		10.0	5.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
Chlorobenzilate	NC		10.0	3.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Chrysene	<10.0		10.0	0.870	ug/L		03/31/25 09:00	04/02/25 00:31	1
Dibenzo(a,h)anthracene	<10.0		10.0	3.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
Dibenzofuran	<10.0		10.0	0.740	ug/L		03/31/25 09:00	04/02/25 00:31	1
Diethyl phthalate	<10.0		10.0	1.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
Dimethoate	NC		10.0	3.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Dimethyl phthalate	<10.0		10.0	1.00	ug/L		03/31/25 09:00	04/02/25 00:31	1
Di-n-butyl phthalate	<10.0		10.0	5.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Di-n-octyl phthalate	<20.0		20.0	7.00	ug/L		03/31/25 09:00	04/02/25 00:31	1
Dinoseb	NC		10.0	2.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
Diphenylamine	<10.0		10.0	6.00	ug/L		03/31/25 09:00	04/02/25 00:31	1
Disulfoton	NC		10.0	2.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
Ethyl methanesulfonate	NC		10.0	3.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Ethyl Parathion	NC		10.0	2.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
Famphur	NC		10.0	3.80	ug/L		03/31/25 09:00	04/02/25 00:31	1
Fluoranthene	<10.0		10.0	1.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
Fluorene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/02/25 00:31	1
Hexachlorobenzene	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/02/25 00:31	1
Hexachlorobutadiene	<10.0		10.0	0.860	ug/L		03/31/25 09:00	04/02/25 00:31	1
Hexachlorocyclopentadiene	<10.0		10.0	5.10	ug/L		03/31/25 09:00	04/02/25 00:31	1
Hexachloroethane	<10.0		10.0	0.970	ug/L		03/31/25 09:00	04/02/25 00:31	1
Hexachloropropene	NC		10.0	2.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0	4.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
Isodrin	NC		10.0	4.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
Isophorone	<10.0		10.0	0.930	ug/L		03/31/25 09:00	04/02/25 00:31	1
Kepone	NC		10.0	1.00	ug/L		03/31/25 09:00	04/02/25 00:31	1
Methapyrilene	NC		10.0	0.760	ug/L		03/31/25 09:00	04/02/25 00:31	1
Methyl methanesulfonate	NC		10.0	3.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
Methyl parathion	NC		10.0	2.30	ug/L		03/31/25 09:00	04/02/25 00:31	1
Nitrobenzene	<10.0		10.0	0.800	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosodiethylamine	NC		10.0	3.40	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosodimethylamine	<10.0		10.0	0.720	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosodi-n-butylamine	NC		10.0	3.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosodi-n-propylamine	<10.0		10.0	0.920	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosodiphenylamine	<10.0		10.0	0.750	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosomethylethylamine	NC		10.0	4.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosopiperidine	NC		10.0	2.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
N-Nitrosopyrrolidine	NC		10.0	3.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
o,o',o"-Triethylphosphorothioate	NC		10.0	3.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
o-Toluidine	NC		10.0	2.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
p-Dimethylamino azobenzene	NC		10.0	2.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
Pentachlorobenzene	NC		10.0	2.80	ug/L		03/31/25 09:00	04/02/25 00:31	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachloronitrobenzene	NC		10.0	5.80	ug/L		03/31/25 09:00	04/02/25 00:31	1
Pentachlorophenol	<10.0		10.0	9.60	ug/L		03/31/25 09:00	04/02/25 00:31	1
Phenacetin	NC		10.0	1.90	ug/L		03/31/25 09:00	04/02/25 00:31	1
Phenanthrene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/02/25 00:31	1
Phenol	<10.0		10.0	1.10	ug/L		03/31/25 09:00	04/02/25 00:31	1
Phorate	NC		10.0	3.20	ug/L		03/31/25 09:00	04/02/25 00:31	1
Pronamide	NC		10.0	2.70	ug/L		03/31/25 09:00	04/02/25 00:31	1
Pyrene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/02/25 00:31	1
Safrole	NC		10.0	2.80	ug/L		03/31/25 09:00	04/02/25 00:31	1
Thionazin	NC		10.0	3.50	ug/L		03/31/25 09:00	04/02/25 00:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	75		25 - 110	03/31/25 09:00	04/02/25 00:31	1
Phenol-d5 (Surr)	61		21 - 110	03/31/25 09:00	04/02/25 00:31	1
Nitrobenzene-d5 (Surr)	96		45 - 129	03/31/25 09:00	04/02/25 00:31	1
2-Fluorobiphenyl (Surr)	84		39 - 118	03/31/25 09:00	04/02/25 00:31	1
2,4,6-Tribromophenol (Surr)	88		27 - 136	03/31/25 09:00	04/02/25 00:31	1
Terphenyl-d14 (Surr)	98		12 - 144	03/31/25 09:00	04/02/25 00:31	1

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/10/25 14:43	1
1,3,5-Trinitrobenzene	<10.0		10.0	2.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
1,3-Dinitrobenzene	<10.0		10.0	3.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
1,4-Naphthoquinone	<10.0		10.0	3.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
1,4-phenylenediamine	<10.0		10.0	1.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
1-Naphthylamine	<10.0		10.0	2.50	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,3,4,6-Tetrachlorophenol	<10.0		10.0	5.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4,5-Trichlorophenol	<10.0		10.0	5.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4,6-Trichlorophenol	<10.0		10.0	5.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4-Dichlorophenol	<10.0		10.0	0.850	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4-Dimethylphenol	<10.0		10.0	0.580	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4-Dinitrophenol	<20.0		20.0	13.0	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,4-Dinitrotoluene	<10.0		10.0	6.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,6-Dichlorophenol	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/10/25 14:43	1
2,6-Dinitrotoluene	<10.0		10.0	0.520	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Acetylaminofluorene	<10.0		10.0	2.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Chloronaphthalene	<10.0		10.0	0.640	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Chlorophenol	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Methylnaphthalene	<10.0		10.0	0.590	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Methylphenol	<10.0		10.0	0.650	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Naphthylamine	<10.0		10.0	2.10	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Nitroaniline	<10.0		10.0	5.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
2-Nitrophenol	<10.0		10.0	6.80	ug/L		03/31/25 09:00	04/10/25 14:43	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	<10.0		10.0	1.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
3-Methylcholanthrene	<10.0		10.0	0.320	ug/L		03/31/25 09:00	04/10/25 14:43	1
3-Nitroaniline	<10.0		10.0	2.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
4,6-Dinitro-2-methylphenol	<10.0		10.0	6.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Aminobiphenyl	<10.0		10.0	2.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Bromophenyl phenyl ether	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Chloro-3-methylphenol	<10.0		10.0	0.840	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Chloroaniline	<10.0		10.0	0.620	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Chlorophenyl phenyl ether	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/10/25 14:43	1
Methylphenol, 3 & 4	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Nitroaniline	<10.0		10.0	1.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
4-Nitrophenol	<10.0		10.0	7.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
5-Nitro-o-toluidine	<10.0		10.0	2.80	ug/L		03/31/25 09:00	04/10/25 14:43	1
7,12-Dimethylbenz(a)anthracene	<10.0		10.0	1.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
Acenaphthene	<10.0		10.0	0.640	ug/L		03/31/25 09:00	04/10/25 14:43	1
Acenaphthylene	<10.0		10.0	0.720	ug/L		03/31/25 09:00	04/10/25 14:43	1
Acetophenone	<10.0		10.0	0.690	ug/L		03/31/25 09:00	04/10/25 14:43	1
Anthracene	<10.0		10.0	0.870	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzo[a]anthracene	<10.0		10.0	0.850	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzo[a]pyrene	<10.0		10.0	8.10	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzo[b]fluoranthene	<10.0		10.0	4.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzo[g,h,i]perylene	<10.0		10.0	6.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzo[k]fluoranthene	<10.0		10.0	2.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
Benzyl alcohol	<10.0		10.0	1.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
Bis(2-chloroethoxy)methane	<10.0		10.0	0.760	ug/L		03/31/25 09:00	04/10/25 14:43	1
Bis(2-chloroethyl)ether	<10.0		10.0	0.820	ug/L		03/31/25 09:00	04/10/25 14:43	1
bis (2-chloroisopropyl) ether	<10.0		10.0	0.540	ug/L		03/31/25 09:00	04/10/25 14:43	1
Bis(2-ethylhexyl) phthalate	<10.0		10.0	5.50	ug/L		03/31/25 09:00	04/10/25 14:43	1
Butyl benzyl phthalate	<10.0		10.0	5.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
Chlorobenzilate	<10.0		10.0	3.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Chrysene	<10.0		10.0	0.870	ug/L		03/31/25 09:00	04/10/25 14:43	1
Diallate	<10.0		10.0	4.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
Dibenzo(a,h)anthracene	<10.0		10.0	3.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
Dibenzofuran	<10.0		10.0	0.740	ug/L		03/31/25 09:00	04/10/25 14:43	1
Diethyl phthalate	<10.0		10.0	1.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
Dimethoate	<10.0		10.0	3.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Dimethyl phthalate	<10.0		10.0	1.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
Di-n-butyl phthalate	<10.0		10.0	5.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Di-n-octyl phthalate	<20.0		20.0	7.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
Dinoseb	<10.0		10.0	2.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
Diphenylamine	<10.0		10.0	6.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
Disulfoton	<10.0		10.0	2.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
Ethyl methanesulfonate	<10.0		10.0	3.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Ethyl Parathion	<10.0		10.0	2.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
Fluoranthene	<10.0		10.0	1.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
Fluorene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/10/25 14:43	1
Hexachlorobenzene	<10.0		10.0	0.700	ug/L		03/31/25 09:00	04/10/25 14:43	1
Hexachlorobutadiene	<10.0		10.0	0.860	ug/L		03/31/25 09:00	04/10/25 14:43	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-450191/1-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<10.0		10.0	5.10	ug/L		03/31/25 09:00	04/10/25 14:43	1
Hexachloroethane	<10.0		10.0	0.970	ug/L		03/31/25 09:00	04/10/25 14:43	1
Hexachloropropene	<10.0		10.0	2.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Indeno[1,2,3-cd]pyrene	<10.0		10.0	4.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
Isodrin	<10.0		10.0	4.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
Isophorone	<10.0		10.0	0.930	ug/L		03/31/25 09:00	04/10/25 14:43	1
Isosafrole	<10.0		10.0	2.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
Kepone	<10.0		10.0	1.00	ug/L		03/31/25 09:00	04/10/25 14:43	1
Methapyrilene	<10.0		10.0	0.760	ug/L		03/31/25 09:00	04/10/25 14:43	1
Methyl methanesulfonate	<10.0		10.0	3.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
Methyl parathion	<10.0		10.0	2.30	ug/L		03/31/25 09:00	04/10/25 14:43	1
Nitrobenzene	<10.0		10.0	0.800	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosodiethylamine	<10.0		10.0	3.40	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosodimethylamine	<10.0		10.0	0.720	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosodi-n-butylamine	<10.0		10.0	3.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosodi-n-propylamine	<10.0		10.0	0.920	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosodiphenylamine	<10.0		10.0	0.750	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosomethylethylamine	<10.0		10.0	4.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosopiperidine	<10.0		10.0	2.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
N-Nitrosopyrrolidine	<10.0		10.0	3.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
o,o',o"-Triethylphosphorothioate	<10.0		10.0	3.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
o-Toluidine	<10.0		10.0	2.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
p-Dimethylamino azobenzene	<10.0		10.0	2.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
Pentachlorobenzene	<10.0		10.0	2.80	ug/L		03/31/25 09:00	04/10/25 14:43	1
Pentachloronitrobenzene	<10.0		10.0	5.80	ug/L		03/31/25 09:00	04/10/25 14:43	1
Pentachlorophenol	<10.0		10.0	9.60	ug/L		03/31/25 09:00	04/10/25 14:43	1
Phenacetin	<10.0		10.0	1.90	ug/L		03/31/25 09:00	04/10/25 14:43	1
Phenanthrene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/10/25 14:43	1
Phenol	<10.0		10.0	1.10	ug/L		03/31/25 09:00	04/10/25 14:43	1
Phorate	<10.0		10.0	3.20	ug/L		03/31/25 09:00	04/10/25 14:43	1
Pronamide	<10.0		10.0	2.70	ug/L		03/31/25 09:00	04/10/25 14:43	1
Pyrene	<10.0		10.0	0.790	ug/L		03/31/25 09:00	04/10/25 14:43	1
Safrole	<10.0		10.0	2.80	ug/L		03/31/25 09:00	04/10/25 14:43	1
Thionazin	<10.0		10.0	3.50	ug/L		03/31/25 09:00	04/10/25 14:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	67		25 - 110	03/31/25 09:00	04/10/25 14:43	1
Phenol-d5 (Surr)	58		21 - 110	03/31/25 09:00	04/10/25 14:43	1
Nitrobenzene-d5 (Surr)	94		45 - 129	03/31/25 09:00	04/10/25 14:43	1
2-Fluorobiphenyl (Surr)	74		39 - 118	03/31/25 09:00	04/10/25 14:43	1
2,4,6-Tribromophenol (Surr)	97		27 - 136	03/31/25 09:00	04/10/25 14:43	1
Terphenyl-d14 (Surr)	95		12 - 144	03/31/25 09:00	04/10/25 14:43	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 310-450191/1-A
Matrix: Water
Analysis Batch: 451374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dimethylbenzidine	<10.0		10.0	1.50	ug/L		03/31/25 09:00	04/11/25 12:25	1

Lab Sample ID: MB 310-450191/1-A
Matrix: Water
Analysis Batch: 451448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	<10.0		10.0	3.80	ug/L		03/31/25 09:00	04/14/25 06:31	1

Lab Sample ID: LCS 310-450191/2-A
Matrix: Water
Analysis Batch: 450359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4,5-Tetrachlorobenzene	100	57.07		ug/L		57	36 - 110
1,3-Dinitrobenzene	100	92.98		ug/L		93	45 - 138
2,3,4,6-Tetrachlorophenol	100	89.22		ug/L		89	33 - 134
2,4,5-Trichlorophenol	100	77.74		ug/L		78	35 - 133
2,4,6-Trichlorophenol	100	85.16		ug/L		85	28 - 139
2,4-Dichlorophenol	100	78.10		ug/L		78	41 - 124
2,4-Dimethylphenol	100	73.15		ug/L		73	31 - 142
2,4-Dinitrophenol	200	101.7		ug/L		51	10 - 138
2,4-Dinitrotoluene	100	94.62		ug/L		95	47 - 137
2,6-Dichlorophenol	100	75.20		ug/L		75	30 - 130
2,6-Dinitrotoluene	100	85.69		ug/L		86	51 - 130
2-Chloronaphthalene	100	69.74		ug/L		70	37 - 110
2-Chlorophenol	100	75.99		ug/L		76	44 - 117
2-Methylnaphthalene	100	61.98		ug/L		62	33 - 110
2-Methylphenol	100	73.02		ug/L		73	47 - 118
2-Nitroaniline	100	91.68		ug/L		92	50 - 135
2-Nitrophenol	100	84.67		ug/L		85	41 - 129
3-Nitroaniline	100	87.99		ug/L		88	42 - 139
4,6-Dinitro-2-methylphenol	200	147.4		ug/L		74	22 - 143
4-Bromophenyl phenyl ether	100	80.22		ug/L		80	45 - 119
4-Chloro-3-methylphenol	100	76.52		ug/L		77	49 - 130
4-Chloroaniline	100	73.66		ug/L		74	21 - 139
4-Chlorophenyl phenyl ether	100	70.69		ug/L		71	44 - 116
Methylphenol, 3 & 4	100	75.09		ug/L		75	46 - 117
4-Nitroaniline	100	77.18		ug/L		77	31 - 145
4-Nitrophenol	200	97.30		ug/L		49	18 - 110
Acenaphthene	100	69.97		ug/L		70	43 - 110
Acenaphthylene	100	75.21		ug/L		75	40 - 110
Acetophenone	100	73.05		ug/L		73	48 - 119
Anthracene	100	78.55		ug/L		79	51 - 120
Benzo[a]anthracene	100	76.67		ug/L		77	51 - 123
Benzo[a]pyrene	100	80.67		ug/L		81	48 - 125
Benzo[b]fluoranthene	100	85.12		ug/L		85	49 - 129
Benzo[g,h,i]perylene	100	80.93		ug/L		81	43 - 139

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	100	75.47		ug/L		75	47 - 130
Benzyl alcohol	100	74.22		ug/L		74	39 - 128
Bis(2-chloroethoxy)methane	100	77.65		ug/L		78	48 - 121
Bis(2-chloroethyl)ether	100	65.04		ug/L		65	43 - 123
bis (2-chloroisopropyl) ether	100	73.14		ug/L		73	34 - 123
Bis(2-ethylhexyl) phthalate	100	97.44		ug/L		97	43 - 143
Butyl benzyl phthalate	100	93.06		ug/L		93	46 - 135
Chrysene	100	78.19		ug/L		78	51 - 125
Dibenzo(a,h)anthracene	100	84.00		ug/L		84	38 - 149
Dibenzofuran	100	74.20		ug/L		74	45 - 112
Diethyl phthalate	100	74.17		ug/L		74	43 - 135
Dimethyl phthalate	100	78.69		ug/L		79	43 - 129
Di-n-butyl phthalate	100	84.10		ug/L		84	50 - 133
Di-n-octyl phthalate	100	95.64		ug/L		96	34 - 150
Fluoranthene	100	76.61		ug/L		77	47 - 128
Fluorene	100	72.80		ug/L		73	45 - 119
Hexachlorobenzene	100	79.16		ug/L		79	48 - 119
Hexachlorobutadiene	100	53.04		ug/L		53	32 - 110
Hexachlorocyclopentadiene	100	56.60		ug/L		57	10 - 110
Hexachloroethane	100	49.82		ug/L		50	31 - 110
Indeno[1,2,3-cd]pyrene	100	84.68		ug/L		85	37 - 150
Isophorone	100	77.86		ug/L		78	50 - 125
Nitrobenzene	100	76.26		ug/L		76	47 - 116
N-Nitrosodimethylamine	100	60.22		ug/L		60	37 - 110
N-Nitrosodi-n-propylamine	100	78.69		ug/L		79	45 - 130
N-Nitrosodiphenylamine	100	87.11		ug/L		87	49 - 121
Pentachlorophenol	200	142.2		ug/L		71	26 - 133
Phenanthrene	100	76.85		ug/L		77	51 - 117
Phenol	100	51.43		ug/L		51	29 - 110
Pyrene	100	81.44		ug/L		81	48 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	59		25 - 110
Phenol-d5 (Surr)	45		21 - 110
Nitrobenzene-d5 (Surr)	75		45 - 129
2-Fluorobiphenyl (Surr)	65		39 - 118
2,4,6-Tribromophenol (Surr)	78		27 - 136
Terphenyl-d14 (Surr)	77		12 - 144

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4,5-Tetrachlorobenzene	100	58.10		ug/L		58	36 - 110
1,3,5-Trinitrobenzene	51.2	36.54		ug/L		71	39 - 144
1,3-Dinitrobenzene	100	79.02		ug/L		79	45 - 138

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Naphthoquinone	51.2	43.50		ug/L		85	37 - 149
1,4-phenylenediamine	51.2	<10.0	*-	ug/L		0.5	20 - 120
1-Naphthylamine	51.2	20.47		ug/L		40	19 - 110
2,4,5-Trichlorophenol	100	74.47		ug/L		74	35 - 133
2,4,6-Trichlorophenol	100	79.11		ug/L		79	28 - 139
2,4-Dichlorophenol	100	74.61		ug/L		75	41 - 124
2,4-Dimethylphenol	100	74.29		ug/L		74	31 - 142
2,4-Dinitrophenol	200	138.3		ug/L		69	10 - 138
2,4-Dinitrotoluene	100	80.16		ug/L		80	47 - 137
2,6-Dichlorophenol	100	73.06		ug/L		73	30 - 130
2,6-Dinitrotoluene	100	76.56		ug/L		77	51 - 130
2-Acetylaminofluorene	51.2	35.32		ug/L		69	35 - 150
2-Chloronaphthalene	100	60.77		ug/L		61	37 - 110
2-Chlorophenol	100	64.48		ug/L		64	44 - 117
2-Methylnaphthalene	100	61.63		ug/L		62	33 - 110
2-Methylphenol	100	71.25		ug/L		71	47 - 118
2-Naphthylamine	51.2	33.29		ug/L		65	18 - 127
2-Nitroaniline	100	78.54		ug/L		79	50 - 135
2-Nitrophenol	100	77.28		ug/L		77	41 - 129
3-Nitroaniline	100	77.63		ug/L		78	42 - 139
4,6-Dinitro-2-methylphenol	200	171.1		ug/L		86	22 - 143
4-Aminobiphenyl	51.2	32.64		ug/L		64	24 - 138
4-Bromophenyl phenyl ether	100	71.16		ug/L		71	45 - 119
4-Chloro-3-methylphenol	100	77.12		ug/L		77	49 - 130
4-Chloroaniline	100	72.46		ug/L		72	21 - 139
4-Chlorophenyl phenyl ether	100	68.51		ug/L		69	44 - 116
Methylphenol, 3 & 4	100	72.50		ug/L		73	46 - 117
4-Nitroaniline	100	74.67		ug/L		75	31 - 145
4-Nitrophenol	200	103.5		ug/L		52	18 - 110
5-Nitro-o-toluidine	51.2	36.18		ug/L		71	47 - 145
7,12-Dimethylbenz(a)anthracene	51.2	30.82		ug/L		60	51 - 129
Acenaphthene	100	63.14		ug/L		63	43 - 110
Acenaphthylene	100	68.11		ug/L		68	40 - 110
Acetophenone	100	76.89		ug/L		77	48 - 119
Anthracene	100	72.01		ug/L		72	51 - 120
Benzo[a]anthracene	100	74.00		ug/L		74	51 - 123
Benzo[a]pyrene	100	71.28		ug/L		71	48 - 125
Benzo[b]fluoranthene	100	71.53		ug/L		72	49 - 129
Benzo[g,h,i]perylene	100	66.65		ug/L		67	43 - 139
Benzo[k]fluoranthene	100	77.36		ug/L		77	47 - 130
Benzyl alcohol	100	72.98		ug/L		73	39 - 128
Bis(2-chloroethoxy)methane	100	74.61		ug/L		75	48 - 121
Bis(2-chloroethyl)ether	100	69.18		ug/L		69	43 - 123
bis (2-chloroisopropyl) ether	100	65.95		ug/L		66	34 - 123
Bis(2-ethylhexyl) phthalate	100	79.55		ug/L		80	43 - 143
Butyl benzyl phthalate	100	78.07		ug/L		78	46 - 135
Chlorobenzilate	51.2	40.12		ug/L		78	52 - 138
Chrysene	100	75.00		ug/L		75	51 - 125

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diallate	44.8	34.18		ug/L		76	42 - 141
Dibenzo(a,h)anthracene	100	63.29		ug/L		63	38 - 149
Dibenzofuran	100	68.02		ug/L		68	45 - 112
Diethyl phthalate	100	67.83		ug/L		68	43 - 135
Dimethoate	44.8	37.07		ug/L		83	51 - 150
Dimethyl phthalate	100	75.66		ug/L		76	43 - 129
Di-n-butyl phthalate	100	75.41		ug/L		75	50 - 133
Di-n-octyl phthalate	100	71.38		ug/L		71	34 - 150
Dinoseb	51.2	40.88		ug/L		80	25 - 146
Disulfoton	44.8	31.88		ug/L		71	54 - 131
Ethyl methanesulfonate	51.2	36.29		ug/L		71	48 - 120
Ethyl Parathion	44.8	34.31		ug/L		77	52 - 149
Fluoranthene	100	73.76		ug/L		74	47 - 128
Fluorene	100	65.22		ug/L		65	45 - 119
Hexachlorobenzene	100	72.09		ug/L		72	48 - 119
Hexachlorobutadiene	100	50.33		ug/L		50	32 - 110
Hexachlorocyclopentadiene	100	49.24		ug/L		49	10 - 110
Hexachloroethane	100	45.20		ug/L		45	31 - 110
Hexachloropropene	51.2	10.64		ug/L		21	10 - 110
Indeno[1,2,3-cd]pyrene	100	65.73		ug/L		66	37 - 150
Isodrin	51.2	31.89		ug/L		62	52 - 125
Isophorone	100	74.72		ug/L		75	50 - 125
Methapyrilene	44.8	8.280	J	ug/L		18	10 - 110
Methyl methanesulfonate	51.2	32.06		ug/L		63	36 - 110
Methyl parathion	44.8	40.79		ug/L		91	50 - 150
Nitrobenzene	100	72.40		ug/L		72	47 - 116
N-Nitrosodiethylamine	51.2	35.90		ug/L		70	47 - 138
N-Nitrosodimethylamine	100	59.92		ug/L		60	37 - 110
N-Nitrosodi-n-butylamine	51.2	40.56		ug/L		79	52 - 142
N-Nitrosodi-n-propylamine	100	68.60		ug/L		69	45 - 130
N-Nitrosodiphenylamine	100	72.81		ug/L		73	49 - 121
N-Nitrosomethylethylamine	51.2	34.33		ug/L		67	54 - 123
N-Nitrosopiperidine	51.2	37.55		ug/L		73	60 - 127
N-Nitrosopyrrolidine	51.2	37.40		ug/L		73	56 - 143
o,o',o''-Triethylphosphorothioate	44.8	32.63		ug/L		73	45 - 113
o-Toluidine	51.2	35.40		ug/L		69	24 - 142
p-Dimethylamino azobenzene	51.2	40.75		ug/L		80	42 - 138
Pentachlorobenzene	51.2	22.60		ug/L		44	33 - 110
Pentachloronitrobenzene	51.2	35.94		ug/L		70	65 - 127
Pentachlorophenol	200	147.4		ug/L		74	26 - 133
Phenacetin	51.2	38.74		ug/L		76	56 - 146
Phenanthrene	100	72.08		ug/L		72	51 - 117
Phenol	100	46.77		ug/L		47	29 - 110
Phorate	44.8	32.41		ug/L		72	57 - 135
Pronamide	51.2	36.11		ug/L		71	61 - 144
Pyrene	100	77.83		ug/L		78	48 - 127
Safrole	44.8	28.79		ug/L		64	34 - 110
Thionazin	44.8	35.99		ug/L		80	52 - 147

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	53		25 - 110
Phenol-d5 (Surr)	46		21 - 110
Nitrobenzene-d5 (Surr)	71		45 - 129
2-Fluorobiphenyl (Surr)	60		39 - 118
2,4,6-Tribromophenol (Surr)	78		27 - 136
Terphenyl-d14 (Surr)	72		12 - 144

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 451374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
3,3'-Dimethylbenzidine	51.2	8.921	J	ug/L		17	10 - 150	

Lab Sample ID: LCS 310-450191/2-A

Matrix: Water

Analysis Batch: 451448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Famphur	44.8	34.50		ug/L		77	44 - 150	

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
1,2,4,5-Tetrachlorobenzene	100	68.75		ug/L		69	36 - 110		19	35
1,3-Dinitrobenzene	100	105.9		ug/L		106	45 - 138		13	35
2,3,4,6-Tetrachlorophenol	100	99.67		ug/L		100	33 - 134		11	35
2,4,5-Trichlorophenol	100	85.39		ug/L		85	35 - 133		9	35
2,4,6-Trichlorophenol	100	97.91		ug/L		98	28 - 139		14	35
2,4-Dichlorophenol	100	87.47		ug/L		87	41 - 124		11	35
2,4-Dimethylphenol	100	81.03		ug/L		81	31 - 142		10	35
2,4-Dinitrophenol	200	131.8		ug/L		66	10 - 138		26	35
2,4-Dinitrotoluene	100	104.6		ug/L		105	47 - 137		10	35
2,6-Dichlorophenol	100	84.61		ug/L		85	30 - 130		12	35
2,6-Dinitrotoluene	100	97.17		ug/L		97	51 - 130		13	35
2-Chloronaphthalene	100	82.64		ug/L		83	37 - 110		17	35
2-Chlorophenol	100	88.59		ug/L		89	44 - 117		15	35
2-Methylnaphthalene	100	74.00		ug/L		74	33 - 110		18	35
2-Methylphenol	100	83.36		ug/L		83	47 - 118		13	35
2-Nitroaniline	100	99.81		ug/L		100	50 - 135		8	35
2-Nitrophenol	100	92.72		ug/L		93	41 - 129		9	35
3-Nitroaniline	100	100.7		ug/L		101	42 - 139		13	35
4,6-Dinitro-2-methylphenol	200	177.5		ug/L		89	22 - 143		19	35
4-Bromophenyl phenyl ether	100	89.50		ug/L		90	45 - 119		11	35
4-Chloro-3-methylphenol	100	85.04		ug/L		85	49 - 130		11	35
4-Chloroaniline	100	83.98		ug/L		84	21 - 139		13	35
4-Chlorophenyl phenyl ether	100	79.92		ug/L		80	44 - 116		12	35
Methylphenol, 3 & 4	100	86.47		ug/L		86	46 - 117		14	35
4-Nitroaniline	100	90.58		ug/L		91	31 - 145		16	35

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 450359

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
4-Nitrophenol	200	112.7		ug/L		56	18 - 110		15	35
Acenaphthene	100	80.18		ug/L		80	43 - 110		14	35
Acenaphthylene	100	84.15		ug/L		84	40 - 110		11	35
Acetophenone	100	85.37		ug/L		85	48 - 119		16	35
Anthracene	100	88.37		ug/L		88	51 - 120		12	35
Benzo[a]anthracene	100	89.21		ug/L		89	51 - 123		15	35
Benzo[a]pyrene	100	97.38		ug/L		97	48 - 125		19	35
Benzo[b]fluoranthene	100	96.36		ug/L		96	49 - 129		12	35
Benzo[g,h,i]perylene	100	98.89		ug/L		99	43 - 139		20	35
Benzo[k]fluoranthene	100	96.58		ug/L		97	47 - 130		25	35
Benzyl alcohol	100	89.82		ug/L		90	39 - 128		19	35
Bis(2-chloroethoxy)methane	100	87.53		ug/L		88	48 - 121		12	35
Bis(2-chloroethyl)ether	100	73.93		ug/L		74	43 - 123		13	35
bis (2-chloroisopropyl) ether	100	84.44		ug/L		84	34 - 123		14	35
Bis(2-ethylhexyl) phthalate	100	109.8		ug/L		110	43 - 143		12	35
Butyl benzyl phthalate	100	103.0		ug/L		103	46 - 135		10	35
Chrysene	100	91.03		ug/L		91	51 - 125		15	35
Dibenzo(a,h)anthracene	100	107.1		ug/L		107	38 - 149		24	35
Dibenzofuran	100	82.85		ug/L		83	45 - 112		11	35
Diethyl phthalate	100	81.31		ug/L		81	43 - 135		9	35
Dimethyl phthalate	100	87.45		ug/L		87	43 - 129		11	35
Di-n-butyl phthalate	100	94.75		ug/L		95	50 - 133		12	35
Di-n-octyl phthalate	100	108.3		ug/L		108	34 - 150		12	35
Fluoranthene	100	89.48		ug/L		89	47 - 128		15	35
Fluorene	100	83.66		ug/L		84	45 - 119		14	35
Hexachlorobenzene	100	89.03		ug/L		89	48 - 119		12	35
Hexachlorobutadiene	100	71.17		ug/L		71	32 - 110		29	35
Hexachlorocyclopentadiene	100	74.96		ug/L		75	10 - 110		28	35
Hexachloroethane	100	67.31		ug/L		67	31 - 110		30	35
Indeno[1,2,3-cd]pyrene	100	103.1		ug/L		103	37 - 150		20	35
Isophorone	100	90.16		ug/L		90	50 - 125		15	35
Nitrobenzene	100	85.59		ug/L		86	47 - 116		12	35
N-Nitrosodimethylamine	100	74.39		ug/L		74	37 - 110		21	35
N-Nitrosodi-n-propylamine	100	93.08		ug/L		93	45 - 130		17	35
N-Nitrosodiphenylamine	100	95.98		ug/L		96	49 - 121		10	35
Pentachlorophenol	200	164.9		ug/L		82	26 - 133		15	35
Phenanthrene	100	85.61		ug/L		86	51 - 117		11	35
Phenol	100	60.31		ug/L		60	29 - 110		16	35
Pyrene	100	92.93		ug/L		93	48 - 127		13	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	67		25 - 110
Phenol-d5 (Surr)	50		21 - 110
Nitrobenzene-d5 (Surr)	80		45 - 129
2-Fluorobiphenyl (Surr)	68		39 - 118
2,4,6-Tribromophenol (Surr)	83		27 - 136
Terphenyl-d14 (Surr)	82		12 - 144

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits			
1,2,4,5-Tetrachlorobenzene	100	70.84		ug/L		71	36 - 110		20	35
1,3,5-Trinitrobenzene	51.2	43.30		ug/L		85	39 - 144		17	35
1,3-Dinitrobenzene	100	91.71		ug/L		92	45 - 138		15	35
1,4-Naphthoquinone	51.2	54.34		ug/L		106	37 - 149		22	29
1,4-phenylenediamine	51.2	<10.0	*- *1	ug/L		0.3	20 - 120		51	35
1-Naphthylamine	51.2	27.29		ug/L		53	19 - 110		29	35
2,4,5-Trichlorophenol	100	88.09		ug/L		88	35 - 133		17	35
2,4,6-Trichlorophenol	100	94.67		ug/L		95	28 - 139		18	35
2,4-Dichlorophenol	100	88.97		ug/L		89	41 - 124		18	35
2,4-Dimethylphenol	100	84.23		ug/L		84	31 - 142		13	35
2,4-Dinitrophenol	200	172.7		ug/L		86	10 - 138		22	35
2,4-Dinitrotoluene	100	91.28		ug/L		91	47 - 137		13	35
2,6-Dichlorophenol	100	86.59		ug/L		87	30 - 130		17	35
2,6-Dinitrotoluene	100	88.73		ug/L		89	51 - 130		15	35
2-Acetylaminofluorene	51.2	41.54		ug/L		81	35 - 150		16	28
2-Chloronaphthalene	100	71.16		ug/L		71	37 - 110		16	35
2-Chlorophenol	100	75.55		ug/L		76	44 - 117		16	35
2-Methylnaphthalene	100	75.24		ug/L		75	33 - 110		20	35
2-Methylphenol	100	85.73		ug/L		86	47 - 118		18	35
2-Naphthylamine	51.2	39.48		ug/L		77	18 - 127		17	35
2-Nitroaniline	100	90.08		ug/L		90	50 - 135		14	35
2-Nitrophenol	100	94.21		ug/L		94	41 - 129		20	35
3-Nitroaniline	100	88.42		ug/L		88	42 - 139		13	35
4,6-Dinitro-2-methylphenol	200	197.3		ug/L		99	22 - 143		14	35
4-Aminobiphenyl	51.2	39.66		ug/L		77	24 - 138		19	35
4-Bromophenyl phenyl ether	100	82.42		ug/L		82	45 - 119		15	35
4-Chloro-3-methylphenol	100	90.49		ug/L		90	49 - 130		16	35
4-Chloroaniline	100	91.71		ug/L		92	21 - 139		23	35
4-Chlorophenyl phenyl ether	100	80.05		ug/L		80	44 - 116		16	35
Methylphenol, 3 & 4	100	90.65		ug/L		91	46 - 117		22	35
4-Nitroaniline	100	88.03		ug/L		88	31 - 145		16	35
4-Nitrophenol	200	123.6		ug/L		62	18 - 110		18	35
5-Nitro-o-toluidine	51.2	40.43		ug/L		79	47 - 145		11	31
7,12-Dimethylbenz(a)anthracene	51.2	38.14		ug/L		74	51 - 129		21	28
Acenaphthene	100	72.78		ug/L		73	43 - 110		14	35
Acenaphthylene	100	80.21		ug/L		80	40 - 110		16	35
Acetophenone	100	94.95		ug/L		95	48 - 119		21	35
Anthracene	100	82.41		ug/L		82	51 - 120		13	35
Benzo[a]anthracene	100	84.83		ug/L		85	51 - 123		14	35
Benzo[a]pyrene	100	85.87		ug/L		86	48 - 125		19	35
Benzo[b]fluoranthene	100	84.67		ug/L		85	49 - 129		17	35
Benzo[g,h,i]perylene	100	81.93		ug/L		82	43 - 139		21	35
Benzo[k]fluoranthene	100	94.01		ug/L		94	47 - 130		19	35
Benzyl alcohol	100	88.62		ug/L		89	39 - 128		19	35
Bis(2-chloroethoxy)methane	100	87.93		ug/L		88	48 - 121		16	35
Bis(2-chloroethyl)ether	100	82.57		ug/L		83	43 - 123		18	35
bis (2-chloroisopropyl) ether	100	78.58		ug/L		79	34 - 123		17	35

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec		RPD	
	Added	Result	Qualifier				Limits		RPD	Limit
Bis(2-ethylhexyl) phthalate	100	91.81		ug/L		92	43 - 143		14	35
Butyl benzyl phthalate	100	89.55		ug/L		90	46 - 135		14	35
Chlorobenzilate	51.2	46.74		ug/L		91	52 - 138		15	28
Chrysene	100	87.19		ug/L		87	51 - 125		15	35
Diallate	44.8	41.07		ug/L		92	42 - 141		18	35
Dibenzo(a,h)anthracene	100	82.63		ug/L		83	38 - 149		27	35
Dibenzofuran	100	78.93		ug/L		79	45 - 112		15	35
Diethyl phthalate	100	75.68		ug/L		76	43 - 135		11	35
Dimethoate	44.8	41.47		ug/L		93	51 - 150		11	26
Dimethyl phthalate	100	87.00		ug/L		87	43 - 129		14	35
Di-n-butyl phthalate	100	86.04		ug/L		86	50 - 133		13	35
Di-n-octyl phthalate	100	83.37		ug/L		83	34 - 150		16	35
Dinoseb	51.2	51.64		ug/L		101	25 - 146		23	35
Disulfoton	44.8	36.46		ug/L		81	54 - 131		13	24
Ethyl methanesulfonate	51.2	45.41		ug/L		89	48 - 120		22	27
Ethyl Parathion	44.8	40.13		ug/L		90	52 - 149		16	26
Fluoranthene	100	83.86		ug/L		84	47 - 128		13	35
Fluorene	100	73.64		ug/L		74	45 - 119		12	35
Hexachlorobenzene	100	82.69		ug/L		83	48 - 119		14	35
Hexachlorobutadiene	100	68.69		ug/L		69	32 - 110		31	35
Hexachlorocyclopentadiene	100	65.92		ug/L		66	10 - 110		29	35
Hexachloroethane	100	61.67		ug/L		62	31 - 110		31	35
Hexachloropropene	51.2	23.99	*1	ug/L		47	10 - 110		77	35
Indeno[1,2,3-cd]pyrene	100	79.61		ug/L		80	37 - 150		19	35
Isodrin	51.2	38.92		ug/L		76	52 - 125		20	26
Isophorone	100	86.79		ug/L		87	50 - 125		15	35
Methapyrilene	44.8	14.29	*1	ug/L		32	10 - 110		53	35
Methyl methanesulfonate	51.2	41.16		ug/L		80	36 - 110		25	26
Methyl parathion	44.8	46.29		ug/L		103	50 - 150		13	25
Nitrobenzene	100	85.96		ug/L		86	47 - 116		17	35
N-Nitrosodiethylamine	51.2	44.78		ug/L		87	47 - 138		22	26
N-Nitrosodimethylamine	100	77.89		ug/L		78	37 - 110		26	35
N-Nitrosodi-n-butylamine	51.2	48.62		ug/L		95	52 - 142		18	27
N-Nitrosodi-n-propylamine	100	79.92		ug/L		80	45 - 130		15	35
N-Nitrosodiphenylamine	100	82.34		ug/L		82	49 - 121		12	35
N-Nitrosomethylethylamine	51.2	45.27	*1	ug/L		88	54 - 123		27	26
N-Nitrosopiperidine	51.2	45.89		ug/L		90	60 - 127		20	26
N-Nitrosopyrrolidine	51.2	44.70		ug/L		87	56 - 143		18	25
o,o',o''-Triethylphosphorothioate	44.8	39.04		ug/L		87	45 - 113		18	33
o-Toluidine	51.2	45.09		ug/L		88	24 - 142		24	35
p-Dimethylamino azobenzene	51.2	48.70		ug/L		95	42 - 138		18	29
Pentachlorobenzene	51.2	35.09	*1	ug/L		69	33 - 110		43	35
Pentachloronitrobenzene	51.2	43.47		ug/L		85	65 - 127		19	29
Pentachlorophenol	200	169.8		ug/L		85	26 - 133		14	35
Phenacetin	51.2	44.17		ug/L		86	56 - 146		13	25
Phenanthrene	100	81.96		ug/L		82	51 - 117		13	35
Phenol	100	59.39		ug/L		59	29 - 110		24	35
Phorate	44.8	38.16		ug/L		85	57 - 135		16	26

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 451185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Pronamide	51.2	40.68		ug/L		79	61 - 144	12		27
Pyrene	100	88.28		ug/L		88	48 - 127	13		35
Safrole	44.8	36.37		ug/L		81	34 - 110	23		35
Thionazin	44.8	40.97		ug/L		91	52 - 147	13		28

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	62		25 - 110
Phenol-d5 (Surr)	56		21 - 110
Nitrobenzene-d5 (Surr)	79		45 - 129
2-Fluorobiphenyl (Surr)	64		39 - 118
2,4,6-Tribromophenol (Surr)	84		27 - 136
Terphenyl-d14 (Surr)	77		12 - 144

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 451374

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
3,3'-Dimethylbenzidine	51.2	23.07	*1	ug/L		45	10 - 150	88		35

Lab Sample ID: LCSD 310-450191/3-A

Matrix: Water

Analysis Batch: 451448

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Famphur	44.8	40.43		ug/L		90	44 - 150	16		35

Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Lab Sample ID: MB 310-450686/4

Matrix: Water

Analysis Batch: 450686

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetonitrile	<10.0		10.0	2.60	mg/L			04/04/25 10:27	1
Isobutanol	<10.0		10.0	2.40	mg/L			04/04/25 10:27	1

Lab Sample ID: LCS 310-450686/19

Matrix: Water

Analysis Batch: 450686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Acetonitrile	106	116.3		mg/L		109	67 - 131	
Isobutanol	96.8	108.0		mg/L		112	80 - 120	

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

Lab Sample ID: 310-302994-3 MS

Matrix: Water

Analysis Batch: 450686

Client Sample ID: MW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetonitrile	<10.0		106	99.48		mg/L		94	67 - 134
Isobutanol	<10.0		96.8	97.16		mg/L		100	80 - 125

Lab Sample ID: 310-302994-3 MSD

Matrix: Water

Analysis Batch: 450686

Client Sample ID: MW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetonitrile	<10.0		106	106.0		mg/L		100	67 - 134	6	23
Isobutanol	<10.0		96.8	107.6		mg/L		111	80 - 125	10	20

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LB 310-449979/1-E

Matrix: Water

Analysis Batch: 450755

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450201

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0907		0.0907	0.0227	ug/L		03/31/25 09:52	04/04/25 15:24	1
4,4'-DDE	<0.0907		0.0907	0.0272	ug/L		03/31/25 09:52	04/04/25 15:24	1
4,4'-DDT	<0.0907		0.0907	0.0181	ug/L		03/31/25 09:52	04/04/25 15:24	1
Aldrin	<0.0907		0.0907	0.0199	ug/L		03/31/25 09:52	04/04/25 15:24	1
alpha-BHC	<0.0907		0.0907	0.00907	ug/L		03/31/25 09:52	04/04/25 15:24	1
beta-BHC	<0.0907		0.0907	0.0381	ug/L		03/31/25 09:52	04/04/25 15:24	1
Chlordane (technical)	<1.81		1.81	0.354	ug/L		03/31/25 09:52	04/04/25 15:24	1
delta-BHC	<0.0907		0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 15:24	1
Dieldrin	<0.0907		0.0907	0.0190	ug/L		03/31/25 09:52	04/04/25 15:24	1
Endosulfan I	<0.0907		0.0907	0.0254	ug/L		03/31/25 09:52	04/04/25 15:24	1
Endosulfan II	<0.0907		0.0907	0.0236	ug/L		03/31/25 09:52	04/04/25 15:24	1
Endosulfan sulfate	<0.0907		0.0907	0.0163	ug/L		03/31/25 09:52	04/04/25 15:24	1
Endrin	<0.0907		0.0907	0.0254	ug/L		03/31/25 09:52	04/04/25 15:24	1
Endrin aldehyde	<0.0907		0.0907	0.0245	ug/L		03/31/25 09:52	04/04/25 15:24	1
gamma-BHC (Lindane)	<0.0907		0.0907	0.00907	ug/L		03/31/25 09:52	04/04/25 15:24	1
Heptachlor	<0.0907		0.0907	0.0209	ug/L		03/31/25 09:52	04/04/25 15:24	1
Heptachlor epoxide	<0.0907		0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 15:24	1
Methoxychlor	<0.0907		0.0907	0.0290	ug/L		03/31/25 09:52	04/04/25 15:24	1
Toxaphene	<1.81		1.81	0.907	ug/L		03/31/25 09:52	04/04/25 15:24	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	214	S1+	10 - 136	03/31/25 09:52	04/04/25 15:24	1
Tetrachloro-m-xylene	123		10 - 130	03/31/25 09:52	04/04/25 15:24	1
Tetrachloro-m-xylene (Surr)	123		10 - 130	03/31/25 09:52	04/04/25 15:24	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 310-450201/1-A

Matrix: Water

Analysis Batch: 450755

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0978		0.0978	0.0244	ug/L		03/31/25 09:52	04/04/25 15:11	1
4,4'-DDE	<0.0978		0.0978	0.0293	ug/L		03/31/25 09:52	04/04/25 15:11	1
4,4'-DDT	<0.0978		0.0978	0.0196	ug/L		03/31/25 09:52	04/04/25 15:11	1
Aldrin	<0.0978		0.0978	0.0215	ug/L		03/31/25 09:52	04/04/25 15:11	1
alpha-BHC	<0.0978		0.0978	0.00978	ug/L		03/31/25 09:52	04/04/25 15:11	1
beta-BHC	<0.0978		0.0978	0.0411	ug/L		03/31/25 09:52	04/04/25 15:11	1
Chlordane (technical)	<1.96		1.96	0.381	ug/L		03/31/25 09:52	04/04/25 15:11	1
delta-BHC	<0.0978		0.0978	0.0313	ug/L		03/31/25 09:52	04/04/25 15:11	1
Dieldrin	<0.0978		0.0978	0.0205	ug/L		03/31/25 09:52	04/04/25 15:11	1
Endosulfan I	<0.0978		0.0978	0.0274	ug/L		03/31/25 09:52	04/04/25 15:11	1
Endosulfan II	<0.0978		0.0978	0.0254	ug/L		03/31/25 09:52	04/04/25 15:11	1
Endosulfan sulfate	<0.0978		0.0978	0.0176	ug/L		03/31/25 09:52	04/04/25 15:11	1
Endrin	<0.0978		0.0978	0.0274	ug/L		03/31/25 09:52	04/04/25 15:11	1
Endrin aldehyde	<0.0978		0.0978	0.0264	ug/L		03/31/25 09:52	04/04/25 15:11	1
gamma-BHC (Lindane)	<0.0978		0.0978	0.00978	ug/L		03/31/25 09:52	04/04/25 15:11	1
Heptachlor	<0.0978		0.0978	0.0225	ug/L		03/31/25 09:52	04/04/25 15:11	1
Heptachlor epoxide	<0.0978		0.0978	0.0313	ug/L		03/31/25 09:52	04/04/25 15:11	1
Methoxychlor	<0.0978		0.0978	0.0313	ug/L		03/31/25 09:52	04/04/25 15:11	1
Toxaphene	<1.96		1.96	0.978	ug/L		03/31/25 09:52	04/04/25 15:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	143	S1+	10 - 136	03/31/25 09:52	04/04/25 15:11	1
Tetrachloro-m-xylene	92		10 - 130	03/31/25 09:52	04/04/25 15:11	1
Tetrachloro-m-xylene (Surr)	92		10 - 130	03/31/25 09:52	04/04/25 15:11	1

Lab Sample ID: LCS 310-450201/3-A

Matrix: Water

Analysis Batch: 450755

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	2.77	3.713		ug/L		134	36 - 149
4,4'-DDE	2.77	3.571		ug/L		129	34 - 130
Aldrin	2.77	2.819		ug/L		102	13 - 120
delta-BHC	2.77	3.220		ug/L		116	33 - 134
Dieldrin	2.77	3.743	*+	ug/L		135	39 - 130
Endosulfan II	2.77	2.965		ug/L		107	14 - 120
Endrin	2.77	4.107	*+	ug/L		148	39 - 140
Endrin aldehyde	2.77	3.645		ug/L		132	32 - 137
Heptachlor	2.77	3.009		ug/L		109	27 - 120
Heptachlor epoxide	2.77	3.706	*+	ug/L		134	38 - 133
Methoxychlor	2.77	4.293	*+	ug/L		155	10 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	169	S1+	10 - 136
Tetrachloro-m-xylene	117		10 - 130
Tetrachloro-m-xylene (Surr)	117		10 - 130

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 310-450201/1-A

Matrix: Water

Analysis Batch: 450758

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450201

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.96		1.96	0.802	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1221	<1.96		1.96	0.802	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1232	<1.96		1.96	0.802	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1242	<1.96		1.96	0.802	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1248	<1.96		1.96	0.675	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1254	<1.96		1.96	0.675	ug/L		03/31/25 09:52	04/04/25 15:11	1
PCB-1260	<1.96		1.96	0.675	ug/L		03/31/25 09:52	04/04/25 15:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	143	S1+	10 - 136	03/31/25 09:52	04/04/25 15:11	1
Tetrachloro-m-xylene	92		10 - 130	03/31/25 09:52	04/04/25 15:11	1

Lab Sample ID: LCS 310-450201/24-A

Matrix: Water

Analysis Batch: 450758

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450201

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	28.2	38.94	*+	ug/L		138	30 - 133
PCB-1260	28.2	40.68	*+	ug/L		144	31 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	176	S1+	10 - 136
Tetrachloro-m-xylene	105		10 - 130

Lab Sample ID: 310-302994-3 MS

Matrix: Water

Analysis Batch: 450758

Client Sample ID: MW-2

Prep Type: Total/NA

Prep Batch: 450201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	<1.83		25.9	32.19		ug/L		124	30 - 133
PCB-1260	<1.83	F1 *+	25.9	33.11		ug/L		128	31 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	142	S1+	10 - 136
Tetrachloro-m-xylene	74		10 - 130

Lab Sample ID: 310-302994-3 MSD

Matrix: Water

Analysis Batch: 450758

Client Sample ID: MW-2

Prep Type: Total/NA

Prep Batch: 450201

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
PCB-1016	<1.83		25.6	32.17		ug/L		126	30 - 133	0	35
PCB-1260	<1.83	F1 *+	25.6	34.68	F1	ug/L		136	31 - 133	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	158	S1+	10 - 136

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 310-302994-3 MSD

Matrix: Water

Analysis Batch: 450758

Client Sample ID: MW-2

Prep Type: Total/NA

Prep Batch: 450201

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	98		10 - 130

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-624734/1-A

Matrix: Water

Analysis Batch: 624977

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 624734

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
2,4,5-T	<0.150		0.150	0.0650	ug/L		04/01/25 15:00	04/02/25 07:10	1	
Silvex (2,4,5-TP)	<0.0500		0.0500	0.0220	ug/L		04/01/25 15:00	04/02/25 07:10	1	
2,4-D	<0.600		0.600	0.250	ug/L		04/01/25 15:00	04/02/25 07:10	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
2,4-Dichlorophenylacetic acid (Surr)	68		34 - 142				04/01/25 15:00	04/02/25 07:10	1	
2,4-Dichlorophenylacetic acid (Surr)	65		34 - 142				04/01/25 15:00	04/02/25 07:10	1	

Lab Sample ID: LCS 410-624734/2-A

Matrix: Water

Analysis Batch: 624977

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 624734

Analyte		Spike	LCS	LCS						
		Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
2,4,5-T		0.400	0.3388		ug/L		85	57 - 171		
2,4-D		2.00	1.505		ug/L		75	53 - 159		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	73		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	72		34 - 142

Lab Sample ID: LCSD 410-624734/3-A

Matrix: Water

Analysis Batch: 624977

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 624734

Analyte		Spike	LCSD	LCSD						
		Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	RPD
2,4,5-T		0.400	0.3467		ug/L		87	57 - 171	2	30
2,4-D		2.00	1.584		ug/L		79	53 - 159	5	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	79		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	76		34 - 142

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 410-625334/1-A

Matrix: Water

Analysis Batch: 625739

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 625334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.150		0.150	0.0650	ug/L		04/02/25 15:15	04/03/25 18:35	1
Silvex (2,4,5-TP)	<0.0500		0.0500	0.0220	ug/L		04/02/25 15:15	04/03/25 18:35	1
2,4-D	<0.600		0.600	0.250	ug/L		04/02/25 15:15	04/03/25 18:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	74		34 - 142	04/02/25 15:15	04/03/25 18:35	1
2,4-Dichlorophenylacetic acid (Surr)	70		34 - 142	04/02/25 15:15	04/03/25 18:35	1

Lab Sample ID: LCS 410-625334/2-A

Matrix: Water

Analysis Batch: 625739

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-T	0.400	0.3298		ug/L		82	57 - 171
2,4-D	2.00	1.539		ug/L		77	53 - 159

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	78		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	76		34 - 142

Lab Sample ID: LCSD 410-625334/3-A

Matrix: Water

Analysis Batch: 625739

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 625334

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T	0.400	0.2997		ug/L		75	57 - 171	10	30
2,4-D	2.00	1.350		ug/L		68	53 - 159	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	68		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	67		34 - 142

Lab Sample ID: MB 410-626533/1-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	<0.150		0.150	0.0650	ug/L		04/04/25 14:48	04/07/25 07:21	1
Silvex (2,4,5-TP)	<0.0500		0.0500	0.0220	ug/L		04/04/25 14:48	04/07/25 07:21	1
2,4-D	<0.600		0.600	0.250	ug/L		04/04/25 14:48	04/07/25 07:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr)	72		34 - 142	04/04/25 14:48	04/07/25 07:21	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 410-626533/1-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626533

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
2,4-Dichlorophenylacetic acid (Surr)	65		34 - 142	04/04/25 14:48	04/07/25 07:21	1

Lab Sample ID: LCS 410-626533/2-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-T	0.400	0.2571		ug/L		64	57 - 171
2,4-D	2.00	1.182		ug/L		59	53 - 159

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	76		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	73		34 - 142

Lab Sample ID: LCSD 410-626533/3-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 626533

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T	0.400	0.3362		ug/L		84	57 - 171	27	30
2,4-D	2.00	1.559		ug/L		78	53 - 159	28	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr)	77		34 - 142
2,4-Dichlorophenylacetic acid (Surr)	73		34 - 142

Method: 8151A - Herbicides (GC) - DL

Lab Sample ID: LCS 410-624734/2-A

Matrix: Water

Analysis Batch: 624977

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 624734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP) - DL	4.01	2.891		ug/L		72	62 - 170

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	90		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	89		34 - 142

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 8151A - Herbicides (GC) - DL (Continued)

Lab Sample ID: LCSD 410-624734/3-A

Matrix: Water

Analysis Batch: 624977

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 624734

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP) - DL	4.01	2.959		ug/L		74	62 - 170	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	93		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	89		34 - 142

Lab Sample ID: LCS 410-625334/2-A

Matrix: Water

Analysis Batch: 625739

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 625334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP) - DL	4.01	2.536		ug/L		63	62 - 170		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	82		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	81		34 - 142

Lab Sample ID: LCSD 410-625334/3-A

Matrix: Water

Analysis Batch: 625739

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 625334

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP) - DL	4.01	2.747		ug/L		69	62 - 170	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	85		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	83		34 - 142

Lab Sample ID: LCS 410-626533/2-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP) - DL	4.01	2.813		ug/L		70	62 - 170		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	96		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	91		34 - 142

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QC Sample Results

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Method: 8151A - Herbicides (GC) - DL (Continued)

Lab Sample ID: LCSD 410-626533/3-A

Matrix: Water

Analysis Batch: 626952

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 626533

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP) - DL	4.01	2.912		ug/L		73	62 - 170	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid (Surr) - DL	90		34 - 142
2,4-Dichlorophenylacetic acid (Surr) - DL	89		34 - 142

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-450320/1-A

Matrix: Water

Analysis Batch: 450798

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450320

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		04/02/25 09:00	04/04/25 13:29	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/04/25 13:29	1
Barium	<0.00200		0.00200	0.000660	mg/L		04/02/25 09:00	04/04/25 13:29	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/04/25 13:29	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/04/25 13:29	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/04/25 13:29	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/04/25 13:29	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/04/25 13:29	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/04/25 13:29	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/04/25 13:29	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/04/25 13:29	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/04/25 13:29	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/04/25 13:29	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/04/25 13:29	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/04/25 13:29	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/04/25 13:29	1

Lab Sample ID: LCS 310-450320/2-A

Matrix: Water

Analysis Batch: 450798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450320

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2193		mg/L		110	80 - 120
Arsenic	0.200	0.2074		mg/L		104	80 - 120
Barium	0.100	0.1033		mg/L		103	80 - 120
Beryllium	0.100	0.09726		mg/L		97	80 - 120
Cadmium	0.100	0.1004		mg/L		100	80 - 120
Chromium	0.100	0.1033		mg/L		103	80 - 120
Cobalt	0.100	0.1062		mg/L		106	80 - 120
Copper	0.200	0.2090		mg/L		105	80 - 120
Lead	0.200	0.2093		mg/L		105	80 - 120
Nickel	0.200	0.2091		mg/L		105	80 - 120
Selenium	0.400	0.3907		mg/L		98	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450320/2-A

Matrix: Water

Analysis Batch: 450798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450320

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Silver	0.100	0.1064		mg/L		106	80 - 120
Thallium	0.100	0.09509		mg/L		95	80 - 120
Tin	0.200	0.2012		mg/L		101	80 - 120
Vanadium	0.100	0.1011		mg/L		101	80 - 120
Zinc	0.200	0.1927		mg/L		96	80 - 120

Lab Sample ID: MB 310-450341/1-A

Matrix: Water

Analysis Batch: 450918

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450341

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200	0.00100	mg/L		04/02/25 09:00	04/07/25 15:39	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/02/25 09:00	04/07/25 15:39	1
Barium	<0.00200		0.00200	0.000660	mg/L		04/02/25 09:00	04/07/25 15:39	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/02/25 09:00	04/07/25 15:39	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/02/25 09:00	04/07/25 15:39	1
Chromium	<0.00500		0.00500	0.00180	mg/L		04/02/25 09:00	04/07/25 15:39	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/02/25 09:00	04/07/25 15:39	1
Copper	<0.00500		0.00500	0.00320	mg/L		04/02/25 09:00	04/07/25 15:39	1
Lead	<0.000500		0.000500	0.000330	mg/L		04/02/25 09:00	04/07/25 15:39	1
Nickel	<0.00500		0.00500	0.00230	mg/L		04/02/25 09:00	04/07/25 15:39	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/02/25 09:00	04/07/25 15:39	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/02/25 09:00	04/07/25 15:39	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/02/25 09:00	04/07/25 15:39	1
Tin	<0.00500		0.00500	0.00250	mg/L		04/02/25 09:00	04/07/25 15:39	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		04/02/25 09:00	04/07/25 15:39	1
Zinc	<0.0200		0.0200	0.0130	mg/L		04/02/25 09:00	04/07/25 15:39	1

Lab Sample ID: LCS 310-450341/2-A

Matrix: Water

Analysis Batch: 450918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450341

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				Limits
Antimony	0.200	0.2287		mg/L		114	80 - 120
Arsenic	0.200	0.2124		mg/L		106	80 - 120
Barium	0.100	0.1064		mg/L		106	80 - 120
Beryllium	0.100	0.1041		mg/L		104	80 - 120
Cadmium	0.100	0.1041		mg/L		104	80 - 120
Chromium	0.100	0.1040		mg/L		104	80 - 120
Cobalt	0.100	0.1120		mg/L		112	80 - 120
Copper	0.200	0.2166		mg/L		108	80 - 120
Lead	0.200	0.2163		mg/L		108	80 - 120
Nickel	0.200	0.2118		mg/L		106	80 - 120
Selenium	0.400	0.4060		mg/L		102	80 - 120
Silver	0.100	0.1063		mg/L		106	80 - 120
Thallium	0.100	0.09623		mg/L		96	80 - 120
Tin	0.200	0.2061		mg/L		103	80 - 120
Vanadium	0.100	0.1026		mg/L		103	80 - 120

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450341/2-A

Matrix: Water

Analysis Batch: 450918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450341

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	0.200	0.2024		mg/L		101	80 - 120

Lab Sample ID: 310-302994-17 MS

Matrix: Water

Analysis Batch: 450918

Client Sample ID: MW-36

Prep Type: Total/NA

Prep Batch: 450341

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.00101	J	0.200	0.2265		mg/L		113	75 - 125
Arsenic	<0.00200		0.200	0.2081		mg/L		104	75 - 125
Barium	0.349		0.100	0.4670		mg/L		118	75 - 125
Beryllium	<0.00100		0.100	0.1018		mg/L		102	75 - 125
Cadmium	<0.000200		0.100	0.1019		mg/L		102	75 - 125
Chromium	<0.00500		0.100	0.1007		mg/L		101	75 - 125
Cobalt	<0.000500		0.100	0.1020		mg/L		102	75 - 125
Copper	<0.00500		0.200	0.1998		mg/L		100	75 - 125
Lead	<0.000500		0.200	0.2060		mg/L		103	75 - 125
Nickel	0.00762		0.200	0.2046		mg/L		98	75 - 125
Selenium	<0.00500		0.400	0.3986		mg/L		100	75 - 125
Silver	<0.00100		0.100	0.1044		mg/L		104	75 - 125
Thallium	<0.00100		0.100	0.08849		mg/L		88	75 - 125
Tin	<0.00500		0.200	0.2000		mg/L		100	75 - 125
Vanadium	<0.00500		0.100	0.1012		mg/L		101	75 - 125
Zinc	<0.0200		0.200	0.1973		mg/L		99	75 - 125

Lab Sample ID: 310-302994-17 MSD

Matrix: Water

Analysis Batch: 450918

Client Sample ID: MW-36

Prep Type: Total/NA

Prep Batch: 450341

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	0.00101	J	0.200	0.2267		mg/L		113	75 - 125	0	20
Arsenic	<0.00200		0.200	0.2090		mg/L		105	75 - 125	0	20
Barium	0.349		0.100	0.4573		mg/L		108	75 - 125	2	20
Beryllium	<0.00100		0.100	0.1013		mg/L		101	75 - 125	0	20
Cadmium	<0.000200		0.100	0.1011		mg/L		101	75 - 125	1	20
Chromium	<0.00500		0.100	0.09913		mg/L		99	75 - 125	2	20
Cobalt	<0.000500		0.100	0.1017		mg/L		102	75 - 125	0	20
Copper	<0.00500		0.200	0.2015		mg/L		101	75 - 125	1	20
Lead	<0.000500		0.200	0.2046		mg/L		102	75 - 125	1	20
Nickel	0.00762		0.200	0.2055		mg/L		99	75 - 125	0	20
Selenium	<0.00500		0.400	0.4006		mg/L		100	75 - 125	1	20
Silver	<0.00100		0.100	0.1083		mg/L		108	75 - 125	4	20
Thallium	<0.00100		0.100	0.08772		mg/L		88	75 - 125	1	20
Tin	<0.00500		0.200	0.1966		mg/L		98	75 - 125	2	20
Vanadium	<0.00500		0.100	0.1004		mg/L		100	75 - 125	1	20
Zinc	<0.0200		0.200	0.1957		mg/L		98	75 - 125	1	20

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: 310-302994-18 DU

Matrix: Water

Analysis Batch: 450918

Client Sample ID: MW-37

Prep Type: Total/NA

Prep Batch: 450341

Analyte	Sample	Sample Qualifier	DU	DU	Unit	D	RPD	Limit
	Result		Result	Qualifier				
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	0.00101	J	0.0009910	J	mg/L		2	20
Barium	0.0776		0.07613		mg/L		2	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.000172	J	<0.000500		mg/L		NC	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Nickel	<0.00500		<0.00500		mg/L		NC	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Tin	<0.00500		<0.00500		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-450511/1-A

Matrix: Water

Analysis Batch: 450737

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450511

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.000200		0.000200	0.000110	mg/L		04/03/25 09:35	04/04/25 10:50	1

Lab Sample ID: LCS 310-450511/2-A

Matrix: Water

Analysis Batch: 450737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001792		mg/L		108	80 - 120

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 310-450345/1-A

Matrix: Water

Analysis Batch: 450638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450345

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	<0.0100		0.0100	0.00350	mg/L		04/01/25 10:42	04/03/25 20:33	1

Lab Sample ID: LCS 310-450345/2-A

Matrix: Water

Analysis Batch: 450638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.200	0.2000		mg/L		100	90 - 110

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: MB 310-450578/1-A
Matrix: Water
Analysis Batch: 450638

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0100		0.0100	0.00350	mg/L		04/03/25 10:02	04/03/25 20:54	1

Lab Sample ID: LCS 310-450578/2-A
Matrix: Water
Analysis Batch: 450638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450578

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.200	0.2008		mg/L		100	90 - 110

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-812061/1-A
Matrix: Water
Analysis Batch: 812062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 812061

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.00		1.00	0.231	mg/L		04/01/25 13:00	04/01/25 14:00	1

Lab Sample ID: LCS 500-812061/2-A
Matrix: Water
Analysis Batch: 812062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 812061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	3.26	3.539		mg/L		109	80 - 120

Lab Sample ID: 310-302994-14 MS
Matrix: Water
Analysis Batch: 812062

Client Sample ID: MW-24
Prep Type: Total/NA
Prep Batch: 812061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	<1.00		3.26	2.762		mg/L		85	75 - 125

Lab Sample ID: 310-302994-14 MSD
Matrix: Water
Analysis Batch: 812062

Client Sample ID: MW-24
Prep Type: Total/NA
Prep Batch: 812061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	<1.00		3.26	2.508		mg/L		77	75 - 125	10	20

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

Lab Sample ID: MB 310-450289/1
Matrix: Water
Analysis Batch: 450289

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			03/31/25 23:05	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-450289/2

Matrix: Water

Analysis Batch: 450289

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	68.00	*-	mg/L		68	81 - 116

Lab Sample ID: MB 310-450489/1

Matrix: Water

Analysis Batch: 450489

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			04/02/25 12:37	1

Lab Sample ID: LCS 310-450489/2

Matrix: Water

Analysis Batch: 450489

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	90.00		mg/L		90	81 - 116

Lab Sample ID: MB 310-450491/1

Matrix: Water

Analysis Batch: 450491

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			04/02/25 13:07	1

Lab Sample ID: LCS 310-450491/2

Matrix: Water

Analysis Batch: 450491

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	96.00		mg/L		96	81 - 116

Lab Sample ID: MB 310-450497/1

Matrix: Water

Analysis Batch: 450497

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			04/02/25 14:12	1

Lab Sample ID: LCS 310-450497/2

Matrix: Water

Analysis Batch: 450497

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	94.00		mg/L		94	81 - 116

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

GC/MS VOA

Analysis Batch: 450214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8260D	
310-302994-4	MW-4	Total/NA	Water	8260D	
310-302994-5	MW-9	Total/NA	Water	8260D	
310-302994-6	MW-10A	Total/NA	Water	8260D	
310-302994-7	MW-11	Total/NA	Water	8260D	
310-302994-8	MW-12R	Total/NA	Water	8260D	
310-302994-9	MW-13	Total/NA	Water	8260D	
310-302994-12	MW-22	Total/NA	Water	8260D	
310-302994-13	MW-23	Total/NA	Water	8260D	
310-302994-14	MW-24	Total/NA	Water	8260D	
310-302994-15	MW-25	Total/NA	Water	8260D	
310-302994-17	MW-36	Total/NA	Water	8260D	
310-302994-18	MW-37	Total/NA	Water	8260D	
310-302994-19	MW-38	Total/NA	Water	8260D	
310-302994-20	MW-39	Total/NA	Water	8260D	
310-302994-22	MW-D2	Total/NA	Water	8260D	
MB 310-450214/6	Method Blank	Total/NA	Water	8260D	
LCS 310-450214/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-450214/8	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 450265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-23	Trip Blank 1	Total/NA	Water	8260D	
310-302994-24	Trip Blank 2	Total/NA	Water	8260D	
310-302994-25	Trip Blank 3	Total/NA	Water	8260D	
310-302994-26	Trip Blank 4	Total/NA	Water	8260D	
310-302994-27	Trip Blank 5	Total/NA	Water	8260D	
310-302994-28	Trip Blank 6	Total/NA	Water	8260D	
310-302994-29	Trip Blank 7	Total/NA	Water	8260D	
MB 310-450265/6	Method Blank	Total/NA	Water	8260D	
LCS 310-450265/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-450265/8	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 450191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	3510C	
310-302994-6	MW-10A	Total/NA	Water	3510C	
310-302994-7	MW-11	Total/NA	Water	3510C	
310-302994-12	MW-22	Total/NA	Water	3510C	
310-302994-14	MW-24	Total/NA	Water	3510C	
310-302994-15	MW-25	Total/NA	Water	3510C	
MB 310-450191/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-450191/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-450191/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 450359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8270E	450191

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

SDG: Muscatine County Sanitary Landfill

GC/MS Semi VOA (Continued)

Analysis Batch: 450359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-6	MW-10A	Total/NA	Water	8270E	450191
310-302994-7	MW-11	Total/NA	Water	8270E	450191
310-302994-12	MW-22	Total/NA	Water	8270E	450191
MB 310-450191/1-A	Method Blank	Total/NA	Water	8270E	450191
LCS 310-450191/2-A	Lab Control Sample	Total/NA	Water	8270E	450191
LCSD 310-450191/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	450191

Analysis Batch: 451185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8270E	450191
310-302994-6	MW-10A	Total/NA	Water	8270E	450191
310-302994-7	MW-11	Total/NA	Water	8270E	450191
310-302994-12	MW-22	Total/NA	Water	8270E	450191
310-302994-14	MW-24	Total/NA	Water	8270E	450191
310-302994-15	MW-25	Total/NA	Water	8270E	450191
MB 310-450191/1-A	Method Blank	Total/NA	Water	8270E	450191
LCS 310-450191/2-A	Lab Control Sample	Total/NA	Water	8270E	450191
LCSD 310-450191/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	450191

Analysis Batch: 451308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-14	MW-24	Total/NA	Water	8270E	450191
310-302994-15	MW-25	Total/NA	Water	8270E	450191

Analysis Batch: 451374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8270E	450191
310-302994-6	MW-10A	Total/NA	Water	8270E	450191
310-302994-7	MW-11	Total/NA	Water	8270E	450191
310-302994-12	MW-22	Total/NA	Water	8270E	450191
310-302994-14	MW-24	Total/NA	Water	8270E	450191
310-302994-15	MW-25	Total/NA	Water	8270E	450191
MB 310-450191/1-A	Method Blank	Total/NA	Water	8270E	450191
LCS 310-450191/2-A	Lab Control Sample	Total/NA	Water	8270E	450191
LCSD 310-450191/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	450191

Analysis Batch: 451448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8270E	450191
310-302994-6	MW-10A	Total/NA	Water	8270E	450191
310-302994-7	MW-11	Total/NA	Water	8270E	450191
310-302994-12	MW-22	Total/NA	Water	8270E	450191
310-302994-14	MW-24	Total/NA	Water	8270E	450191
310-302994-15	MW-25	Total/NA	Water	8270E	450191
MB 310-450191/1-A	Method Blank	Total/NA	Water	8270E	450191
LCS 310-450191/2-A	Lab Control Sample	Total/NA	Water	8270E	450191
LCSD 310-450191/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	450191

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

GC Semi VOA

Leach Batch: 449979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-449979/1-E	Method Blank	Total/NA	Water	1311	

Prep Batch: 450201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	3511	
310-302994-6	MW-10A	Total/NA	Water	3511	
310-302994-7	MW-11	Total/NA	Water	3511	
310-302994-12	MW-22	Total/NA	Water	3511	
310-302994-14	MW-24	Total/NA	Water	3511	
310-302994-15	MW-25	Total/NA	Water	3511	
310-302994-19	MW-38	Total/NA	Water	3511	
310-302994-20	MW-39	Total/NA	Water	3511	
LB 310-449979/1-E	Method Blank	Total/NA	Water	3511	449979
MB 310-450201/1-A	Method Blank	Total/NA	Water	3511	
LCS 310-450201/24-A	Lab Control Sample	Total/NA	Water	3511	
LCS 310-450201/3-A	Lab Control Sample	Total/NA	Water	3511	
310-302994-3 MS	MW-2	Total/NA	Water	3511	
310-302994-3 MSD	MW-2	Total/NA	Water	3511	

Analysis Batch: 450686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8015C	
310-302994-6	MW-10A	Total/NA	Water	8015C	
310-302994-7	MW-11	Total/NA	Water	8015C	
310-302994-12	MW-22	Total/NA	Water	8015C	
310-302994-14	MW-24	Total/NA	Water	8015C	
310-302994-15	MW-25	Total/NA	Water	8015C	
MB 310-450686/4	Method Blank	Total/NA	Water	8015C	
LCS 310-450686/19	Lab Control Sample	Total/NA	Water	8015C	
310-302994-3 MS	MW-2	Total/NA	Water	8015C	
310-302994-3 MSD	MW-2	Total/NA	Water	8015C	

Analysis Batch: 450755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8081B	450201
310-302994-6	MW-10A	Total/NA	Water	8081B	450201
310-302994-7	MW-11	Total/NA	Water	8081B	450201
310-302994-12	MW-22	Total/NA	Water	8081B	450201
310-302994-14	MW-24	Total/NA	Water	8081B	450201
310-302994-15	MW-25	Total/NA	Water	8081B	450201
310-302994-19	MW-38	Total/NA	Water	8081B	450201
310-302994-20	MW-39	Total/NA	Water	8081B	450201
LB 310-449979/1-E	Method Blank	Total/NA	Water	8081B	450201
MB 310-450201/1-A	Method Blank	Total/NA	Water	8081B	450201
LCS 310-450201/3-A	Lab Control Sample	Total/NA	Water	8081B	450201

Analysis Batch: 450758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8082A	450201
310-302994-6	MW-10A	Total/NA	Water	8082A	450201

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

GC Semi VOA (Continued)

Analysis Batch: 450758 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-7	MW-11	Total/NA	Water	8082A	450201
310-302994-12	MW-22	Total/NA	Water	8082A	450201
310-302994-14	MW-24	Total/NA	Water	8082A	450201
310-302994-15	MW-25	Total/NA	Water	8082A	450201
MB 310-450201/1-A	Method Blank	Total/NA	Water	8082A	450201
LCS 310-450201/24-A	Lab Control Sample	Total/NA	Water	8082A	450201
310-302994-3 MS	MW-2	Total/NA	Water	8082A	450201
310-302994-3 MSD	MW-2	Total/NA	Water	8082A	450201

Prep Batch: 624734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-12	MW-22	Total/NA	Water	8151A	
310-302994-14	MW-24	Total/NA	Water	8151A	
310-302994-15	MW-25	Total/NA	Water	8151A	
MB 410-624734/1-A	Method Blank	Total/NA	Water	8151A	
LCS 410-624734/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	
LCS 410-624734/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 410-624734/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
LCSD 410-624734/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 624977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-12	MW-22	Total/NA	Water	8151A	624734
310-302994-14	MW-24	Total/NA	Water	8151A	624734
310-302994-15	MW-25	Total/NA	Water	8151A	624734
MB 410-624734/1-A	Method Blank	Total/NA	Water	8151A	624734
LCS 410-624734/2-A	Lab Control Sample	Total/NA	Water	8151A	624734
LCS 410-624734/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	624734
LCSD 410-624734/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	624734
LCSD 410-624734/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	624734

Prep Batch: 625334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-6	MW-10A	Total/NA	Water	8151A	
MB 410-625334/1-A	Method Blank	Total/NA	Water	8151A	
LCS 410-625334/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	
LCS 410-625334/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 410-625334/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	
LCSD 410-625334/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 625739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-6	MW-10A	Total/NA	Water	8151A	625334
MB 410-625334/1-A	Method Blank	Total/NA	Water	8151A	625334
LCS 410-625334/2-A	Lab Control Sample	Total/NA	Water	8151A	625334
LCS 410-625334/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	625334
LCSD 410-625334/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	625334
LCSD 410-625334/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	625334

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

GC Semi VOA

Prep Batch: 626533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8151A	
310-302994-7	MW-11	Total/NA	Water	8151A	
310-302994-8	MW-12R	Total/NA	Water	8151A	
MB 410-626533/1-A	Method Blank	Total/NA	Water	8151A	
LCS 410-626533/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	
LCS 410-626533/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 410-626533/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
LCSD 410-626533/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 626952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	8151A	626533
310-302994-7	MW-11	Total/NA	Water	8151A	626533
310-302994-8	MW-12R	Total/NA	Water	8151A	626533
MB 410-626533/1-A	Method Blank	Total/NA	Water	8151A	626533
LCS 410-626533/2-A	Lab Control Sample	Total/NA	Water	8151A	626533
LCS 410-626533/2-A - DL	Lab Control Sample	Total/NA	Water	8151A	626533
LCSD 410-626533/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	626533
LCSD 410-626533/3-A - DL	Lab Control Sample Dup	Total/NA	Water	8151A	626533

Metals

Prep Batch: 450320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-4	MW-4	Total/NA	Water	3005A	
310-302994-8	MW-12R	Total/NA	Water	3005A	
310-302994-9	MW-13	Total/NA	Water	3005A	
310-302994-10	MW-20	Total/NA	Water	3005A	
310-302994-15	MW-25	Total/NA	Water	3005A	
MB 310-450320/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-450320/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 450341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-1	MW-49BG	Total/NA	Water	3005A	
310-302994-2	MW-50BG	Total/NA	Water	3005A	
310-302994-3	MW-2	Total/NA	Water	3005A	
310-302994-5	MW-9	Total/NA	Water	3005A	
310-302994-6	MW-10A	Total/NA	Water	3005A	
310-302994-7	MW-11	Total/NA	Water	3005A	
310-302994-11	MW-21	Total/NA	Water	3005A	
310-302994-12	MW-22	Total/NA	Water	3005A	
310-302994-13	MW-23	Total/NA	Water	3005A	
310-302994-14	MW-24	Total/NA	Water	3005A	
310-302994-16	MW-26	Total/NA	Water	3005A	
310-302994-17	MW-36	Total/NA	Water	3005A	
310-302994-18	MW-37	Total/NA	Water	3005A	
310-302994-19	MW-38	Total/NA	Water	3005A	
310-302994-20	MW-39	Total/NA	Water	3005A	
310-302994-21	MW-D1	Total/NA	Water	3005A	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Metals (Continued)

Prep Batch: 450341 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-22	MW-D2	Total/NA	Water	3005A	
MB 310-450341/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-450341/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-302994-17 MS	MW-36	Total/NA	Water	3005A	
310-302994-17 MSD	MW-36	Total/NA	Water	3005A	
310-302994-18 DU	MW-37	Total/NA	Water	3005A	

Prep Batch: 450511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	7470A	
310-302994-6	MW-10A	Total/NA	Water	7470A	
310-302994-7	MW-11	Total/NA	Water	7470A	
310-302994-12	MW-22	Total/NA	Water	7470A	
310-302994-14	MW-24	Total/NA	Water	7470A	
310-302994-15	MW-25	Total/NA	Water	7470A	
MB 310-450511/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-450511/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 450737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	7470A	450511
310-302994-6	MW-10A	Total/NA	Water	7470A	450511
310-302994-7	MW-11	Total/NA	Water	7470A	450511
310-302994-12	MW-22	Total/NA	Water	7470A	450511
310-302994-14	MW-24	Total/NA	Water	7470A	450511
310-302994-15	MW-25	Total/NA	Water	7470A	450511
MB 310-450511/1-A	Method Blank	Total/NA	Water	7470A	450511
LCS 310-450511/2-A	Lab Control Sample	Total/NA	Water	7470A	450511

Analysis Batch: 450798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-4	MW-4	Total/NA	Water	6020B	450320
310-302994-8	MW-12R	Total/NA	Water	6020B	450320
310-302994-9	MW-13	Total/NA	Water	6020B	450320
310-302994-10	MW-20	Total/NA	Water	6020B	450320
310-302994-15	MW-25	Total/NA	Water	6020B	450320
MB 310-450320/1-A	Method Blank	Total/NA	Water	6020B	450320
LCS 310-450320/2-A	Lab Control Sample	Total/NA	Water	6020B	450320

Analysis Batch: 450918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-1	MW-49BG	Total/NA	Water	6020B	450341
310-302994-2	MW-50BG	Total/NA	Water	6020B	450341
310-302994-3	MW-2	Total/NA	Water	6020B	450341
310-302994-4	MW-4	Total/NA	Water	6020B	450320
310-302994-5	MW-9	Total/NA	Water	6020B	450341
310-302994-6	MW-10A	Total/NA	Water	6020B	450341
310-302994-7	MW-11	Total/NA	Water	6020B	450341
310-302994-8	MW-12R	Total/NA	Water	6020B	450320
310-302994-9	MW-13	Total/NA	Water	6020B	450320

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Metals (Continued)

Analysis Batch: 450918 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-11	MW-21	Total/NA	Water	6020B	450341
310-302994-12	MW-22	Total/NA	Water	6020B	450341
310-302994-13	MW-23	Total/NA	Water	6020B	450341
310-302994-14	MW-24	Total/NA	Water	6020B	450341
310-302994-15	MW-25	Total/NA	Water	6020B	450320
310-302994-16	MW-26	Total/NA	Water	6020B	450341
310-302994-17	MW-36	Total/NA	Water	6020B	450341
310-302994-18	MW-37	Total/NA	Water	6020B	450341
310-302994-19	MW-38	Total/NA	Water	6020B	450341
310-302994-20	MW-39	Total/NA	Water	6020B	450341
310-302994-21	MW-D1	Total/NA	Water	6020B	450341
310-302994-22	MW-D2	Total/NA	Water	6020B	450341
MB 310-450341/1-A	Method Blank	Total/NA	Water	6020B	450341
LCS 310-450341/2-A	Lab Control Sample	Total/NA	Water	6020B	450341
310-302994-17 MS	MW-36	Total/NA	Water	6020B	450341
310-302994-17 MSD	MW-36	Total/NA	Water	6020B	450341
310-302994-18 DU	MW-37	Total/NA	Water	6020B	450341

Analysis Batch: 451009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-1	MW-49BG	Total/NA	Water	6020B	450341
310-302994-19	MW-38	Total/NA	Water	6020B	450341

General Chemistry

Analysis Batch: 450289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-1	MW-49BG	Total/NA	Water	I-3765-85	
MB 310-450289/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450289/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 450345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	9012B	
310-302994-6	MW-10A	Total/NA	Water	9012B	
310-302994-7	MW-11	Total/NA	Water	9012B	
MB 310-450345/1-A	Method Blank	Total/NA	Water	9012B	
LCS 310-450345/2-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 450489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-7	MW-11	Total/NA	Water	I-3765-85	
310-302994-19	MW-38	Total/NA	Water	I-3765-85	
310-302994-20	MW-39	Total/NA	Water	I-3765-85	
310-302994-21	MW-D1	Total/NA	Water	I-3765-85	
310-302994-22	MW-D2	Total/NA	Water	I-3765-85	
MB 310-450489/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450489/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

General Chemistry

Analysis Batch: 450491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-8	MW-12R	Total/NA	Water	I-3765-85	
310-302994-9	MW-13	Total/NA	Water	I-3765-85	
310-302994-16	MW-26	Total/NA	Water	I-3765-85	
310-302994-17	MW-36	Total/NA	Water	I-3765-85	
310-302994-18	MW-37	Total/NA	Water	I-3765-85	
MB 310-450491/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450491/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 450497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-2	MW-50BG	Total/NA	Water	I-3765-85	
310-302994-3	MW-2	Total/NA	Water	I-3765-85	
310-302994-4	MW-4	Total/NA	Water	I-3765-85	
310-302994-5	MW-9	Total/NA	Water	I-3765-85	
310-302994-6	MW-10A	Total/NA	Water	I-3765-85	
310-302994-10	MW-20	Total/NA	Water	I-3765-85	
310-302994-11	MW-21	Total/NA	Water	I-3765-85	
310-302994-12	MW-22	Total/NA	Water	I-3765-85	
310-302994-13	MW-23	Total/NA	Water	I-3765-85	
310-302994-14	MW-24	Total/NA	Water	I-3765-85	
310-302994-15	MW-25	Total/NA	Water	I-3765-85	
MB 310-450497/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-450497/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 450578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-12	MW-22	Total/NA	Water	9012B	
310-302994-14	MW-24	Total/NA	Water	9012B	
310-302994-15	MW-25	Total/NA	Water	9012B	
MB 310-450578/1-A	Method Blank	Total/NA	Water	9012B	
LCS 310-450578/2-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 450638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	9012B	450345
310-302994-6	MW-10A	Total/NA	Water	9012B	450345
310-302994-7	MW-11	Total/NA	Water	9012B	450345
310-302994-12	MW-22	Total/NA	Water	9012B	450578
310-302994-14	MW-24	Total/NA	Water	9012B	450578
310-302994-15	MW-25	Total/NA	Water	9012B	450578
MB 310-450345/1-A	Method Blank	Total/NA	Water	9012B	450345
MB 310-450578/1-A	Method Blank	Total/NA	Water	9012B	450578
LCS 310-450345/2-A	Lab Control Sample	Total/NA	Water	9012B	450345
LCS 310-450578/2-A	Lab Control Sample	Total/NA	Water	9012B	450578

Prep Batch: 812061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	9030B	
310-302994-6	MW-10A	Total/NA	Water	9030B	
310-302994-7	MW-11	Total/NA	Water	9030B	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

General Chemistry (Continued)

Prep Batch: 812061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-12	MW-22	Total/NA	Water	9030B	
310-302994-14	MW-24	Total/NA	Water	9030B	
310-302994-15	MW-25	Total/NA	Water	9030B	
310-302994-16	MW-26	Total/NA	Water	9030B	
MB 500-812061/1-A	Method Blank	Total/NA	Water	9030B	
LCS 500-812061/2-A	Lab Control Sample	Total/NA	Water	9030B	
310-302994-14 MS	MW-24	Total/NA	Water	9030B	
310-302994-14 MSD	MW-24	Total/NA	Water	9030B	

Analysis Batch: 812062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-302994-3	MW-2	Total/NA	Water	9034	812061
310-302994-6	MW-10A	Total/NA	Water	9034	812061
310-302994-7	MW-11	Total/NA	Water	9034	812061
310-302994-12	MW-22	Total/NA	Water	9034	812061
310-302994-14	MW-24	Total/NA	Water	9034	812061
310-302994-15	MW-25	Total/NA	Water	9034	812061
310-302994-16	MW-26	Total/NA	Water	9034	812061
MB 500-812061/1-A	Method Blank	Total/NA	Water	9034	812061
LCS 500-812061/2-A	Lab Control Sample	Total/NA	Water	9034	812061
310-302994-14 MS	MW-24	Total/NA	Water	9034	812061
310-302994-14 MSD	MW-24	Total/NA	Water	9034	812061

Lab Chronicle

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-49BG

Lab Sample ID: 310-302994-1

Date Collected: 03/25/25 10:22

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:37
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		4	451009	NFT2	EET CF	04/08/25 12:13
Total/NA	Analysis	I-3765-85		1	450289	MDU9	EET CF	03/31/25 23:05

Client Sample ID: MW-50BG

Lab Sample ID: 310-302994-2

Date Collected: 03/24/25 15:25

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:39
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 15:13
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 16:03
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 13:44
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 07:29
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	450359	V7YZ	EET CF	04/02/25 02:28
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 11:43
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 17:20
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 17:20
Total/NA	Prep	8151A			626533	QJZ6	ELLE	04/04/25 14:48
Total/NA	Analysis	8151A		1	626952	UAMZ	ELLE	04/08/25 01:17
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:05
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:29
Total/NA	Prep	9012B			450345	ENB7	EET CF	04/01/25 10:42
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:09
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:10 - 04/01/25 13:13 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:18

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-302994-3

Date Collected: 03/24/25 17:25

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-4

Lab Sample ID: 310-302994-4

Date Collected: 03/26/25 16:31

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 16:21
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 14:33
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 12:42
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-9

Lab Sample ID: 310-302994-5

Date Collected: 03/26/25 08:36

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 16:44
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:01
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 17:07
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 16:29
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 14:10
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 07:48
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	450359	V7YZ	EET CF	04/02/25 02:57
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 12:03
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 17:33
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 17:33

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-10A

Lab Sample ID: 310-302994-6

Date Collected: 03/26/25 18:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8151A			625334	QJZ6	ELLE	04/02/25 15:15
Total/NA	Analysis	8151A		1	625739	UAMZ	ELLE	04/03/25 21:54
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:10
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:31
Total/NA	Prep	9012B			450345	ENB7	EET CF	04/01/25 10:42
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:09
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:13 - 04/01/25 13:16 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:22
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-11

Lab Sample ID: 310-302994-7

Date Collected: 03/24/25 16:12

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 15:36
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 16:56
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 14:37
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 08:08
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	450359	V7YZ	EET CF	04/02/25 03:26
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 12:22
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 17:46
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 17:46
Total/NA	Prep	8151A			626533	QJZ6	ELLE	04/04/25 14:48
Total/NA	Analysis	8151A		1	626952	UAMZ	ELLE	04/08/25 01:45
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:27
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:33
Total/NA	Prep	9012B			450345	ENB7	EET CF	04/01/25 10:42
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:06
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:08 - 04/01/25 13:10 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:13
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Lab Chronicle

Client: SCS Engineers
 Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
 Sampling

Job ID: 310-302994-1
 SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-302994-8

Date Collected: 03/24/25 14:26

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 15:59
Total/NA	Prep	8151A			626533	QJZ6	ELLE	04/04/25 14:48
Total/NA	Analysis	8151A		1	626952	UAMZ	ELLE	04/08/25 02:13
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 14:38
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		4	450918	NFT2	EET CF	04/07/25 12:45
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-13

Lab Sample ID: 310-302994-9

Date Collected: 03/25/25 16:58

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 17:30
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 14:40
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 12:47
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-20

Lab Sample ID: 310-302994-10

Date Collected: 03/25/25 11:21

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 14:36
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-21

Lab Sample ID: 310-302994-11

Date Collected: 03/25/25 12:39

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:41
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-302994-12

Date Collected: 03/25/25 15:48

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 17:52
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 17:22
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 15:03
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 08:27
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	450359	V7YZ	EET CF	04/02/25 03:55
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 12:42
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 17:59
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 17:59
Total/NA	Prep	8151A			624734	QJZ6	ELLE	04/01/25 15:00
Total/NA	Analysis	8151A		1	624977	UAMZ	ELLE	04/02/25 20:23
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:13
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:35
Total/NA	Prep	9012B			450578	WZC8	EET CF	04/03/25 10:02
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:21
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:05 - 04/01/25 13:08 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:09
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-23

Lab Sample ID: 310-302994-13

Date Collected: 03/27/25 12:03

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 18:15
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:34
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 18:38

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-24

Lab Sample ID: 310-302994-14

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 17:49
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 15:29
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 08:46
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451308	V7YZ	EET CF	04/11/25 12:01
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 13:01
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 18:12
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 18:12
Total/NA	Prep	8151A			624734	QJZ6	ELLE	04/01/25 15:00
Total/NA	Analysis	8151A		1	624977	UAMZ	ELLE	04/02/25 20:51
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:22
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:37
Total/NA	Prep	9012B			450578	WZC8	EET CF	04/03/25 10:02
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:22
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:19 - 04/01/25 13:21 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:31
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-25

Lab Sample ID: 310-302994-15

Date Collected: 03/25/25 18:34

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 19:01
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451185	V7YZ	EET CF	04/10/25 18:15
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451374	V7YZ	EET CF	04/11/25 15:56
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451448	V7YZ	EET CF	04/14/25 09:06
Total/NA	Prep	3510C			450191	J5BR	EET CF	03/31/25 09:00
Total/NA	Analysis	8270E		1	451308	V7YZ	EET CF	04/11/25 12:31
Total/NA	Analysis	8015C		1	450686	BW2O	EET CF	04/04/25 13:20
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 18:25

Lab Chronicle

Client: SCS Engineers

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1

SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Date Collected: 03/25/25 18:34

Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8082A		1	450758	BW2O	EET CF	04/04/25 18:25
Total/NA	Prep	8151A			624734	QJZ6	ELLE	04/01/25 15:00
Total/NA	Analysis	8151A		1	624977	UAMZ	ELLE	04/02/25 21:19
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450798	NFT2	EET CF	04/04/25 14:31
Total/NA	Prep	3005A			450320	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 12:40
Total/NA	Prep	7470A			450511	F5MW	EET CF	04/03/25 09:35
Total/NA	Analysis	7470A		1	450737	F5MW	EET CF	04/04/25 11:39
Total/NA	Prep	9012B			450578	WZC8	EET CF	04/03/25 10:02
Total/NA	Analysis	9012B		1	450638	ZJX4	EET CF	04/03/25 23:22
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:16 - 04/01/25 13:19 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:27
Total/NA	Analysis	I-3765-85		1	450497	DGU1	EET CF	04/02/25 14:12

Client Sample ID: MW-26

Date Collected: 03/25/25 14:42

Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:25
Total/NA	Prep	9030B			812061	TR	EET CHI	04/01/25 13:27 - 04/01/25 13:30 ¹
Total/NA	Analysis	9034		1	812062	TR	EET CHI	04/01/25 14:45
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-36

Date Collected: 03/25/25 17:58

Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 19:24
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 15:51
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-37

Date Collected: 03/26/25 15:20

Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 19:46

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual
Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-302994-18

Date Collected: 03/26/25 15:20

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:29
Total/NA	Analysis	I-3765-85		1	450491	DGU1	EET CF	04/02/25 13:07

Client Sample ID: MW-38

Lab Sample ID: 310-302994-19

Date Collected: 03/26/25 10:23

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 20:09
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 18:38
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:44
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		10	451009	NFT2	EET CF	04/08/25 12:16
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Client Sample ID: MW-39

Lab Sample ID: 310-302994-20

Date Collected: 03/25/25 13:51

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 20:32
Total/NA	Prep	3511			450201	BW2O	EET CF	03/31/25 09:52
Total/NA	Analysis	8081B		1	450755	BW2O	EET CF	04/04/25 18:51
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:53
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Client Sample ID: MW-D1

Lab Sample ID: 310-302994-21

Date Collected: 03/25/25 11:21

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:03
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D2

Lab Sample ID: 310-302994-22

Date Collected: 03/25/25 08:55

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450214	FE5V	EET CF	03/31/25 20:54
Total/NA	Prep	3005A			450341	QTZ5	EET CF	04/02/25 09:00
Total/NA	Analysis	6020B		1	450918	NFT2	EET CF	04/07/25 16:08
Total/NA	Analysis	I-3765-85		1	450489	DGU1	EET CF	04/02/25 12:37

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-302994-23

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 01:04

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-302994-24

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 01:26

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-302994-25

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 01:49

Client Sample ID: Trip Blank 4

Lab Sample ID: 310-302994-26

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 02:12

Client Sample ID: Trip Blank 5

Lab Sample ID: 310-302994-27

Date Collected: 03/25/25 00:00

Matrix: Water

Date Received: 03/28/25 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 02:35

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine County SLF 1st 2025 Semi-Annual Sampling

Job ID: 310-302994-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 6
Date Collected: 03/25/25 00:00
Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-28
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 02:58

Client Sample ID: Trip Blank 7
Date Collected: 03/25/25 00:00
Date Received: 03/28/25 16:35

Lab Sample ID: 310-302994-29
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	450265	FE5V	EET CF	04/01/25 03:21

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
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260D		Water	1,2,4-Trichlorobenzene
8260D		Water	Allyl chloride
8260D		Water	Ethyl methacrylate

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	361	03-01-26

Method Summary

Client: SCS Engineers

Job ID: 310-302994-1

Project/Site: Muscatine County SLF 1st 2025 Semi-Annual

SDG: Muscatine County Sanitary Landfill

Sampling

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CF
8015C	Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)	SW846	EET CF
8081B	Organochlorine Pesticides (GC)	SW846	EET CF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CF
8151A	Herbicides (GC)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9012B	Cyanide, Total and/or Amenable	SW846	EET CF
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
3511	Microextraction of Organic Compounds	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET CF
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

Protocol References:

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

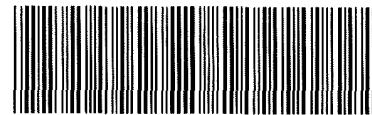
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

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

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Cooler/Sample Receipt and Temperature Log form

Client Information			
Client: <u>SOS</u>			
City/State:	CITY <u>V Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3-28-15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>1</u> of <u>2</u>
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? ↓
~~AN-29, 49 BG, 60 BG, 2~~			
MV-26, 01, 50 BG, 2			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):		Corrected Temp (°C):	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>PL 250 N</u>		CONTAINER 2
Uncorrected Temp (°C):	<u>5.9</u>		
Corrected Temp (°C):	<u>5.9</u>		
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>ScS</u>			
City/State:	CITY <u>Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>2</u> of <u>7</u>
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? <u>↓</u>
<u>MW-4, 10A,</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>5.0</u>		Corrected Temp (°C): <u>5.0</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No			
a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>3</u> of <u>7</u>
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? ↓
<u>MW 11, 12R</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>13.3</u>		Corrected Temp (°C): <u>13.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>PL 1L</u>	CONTAINER 2 <u>PL 250 N</u>	
Uncorrected Temp (°C):	<u>13.8</u>	<u>13.0</u>	
Corrected Temp (°C):	<u>13.8</u>	<u>13.0</u>	
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>V Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>4</u> of <u>7</u>
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? <u>↓</u>
<u>MW 13, 21, 20, 22</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>11.2</u>		Corrected Temp (°C): <u>11.2</u>	
• Sample Container Temperature			
Container(s) used.	CONTAINER 1 <u>PL1L</u>	CONTAINER 2 <u>→</u>	
Uncorrected Temp (°C):	<u>11.1</u>	<u>10.8</u>	
Corrected Temp (°C):	<u>11.1</u>	<u>10.8</u>	
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>5</u> of <u>7</u>
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? ↓
<u>MW 4906, O2, 24</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>10.0</u>		Corrected Temp (°C): <u>10.0</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>P2 12</u>	CONTAINER 2 <u>→</u>	
Uncorrected Temp (°C):	<u>9.9</u>	<u>9.7</u>	
Corrected Temp (°C):	<u>9.9</u>	<u>9.7</u>	
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>6</u> of <u>7</u>
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? ↓
<u>MW-36, 23, 39, 25</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>13.1</u>		Corrected Temp (°C): <u>13.1</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>P114</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>13.3</u>	<u>12.9</u>	
Corrected Temp (°C):	<u>13.3</u>	<u>12.9</u>	
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			



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here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>ScS</u>			
City/State:	CITY <u>V Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>3.28.15</u>	TIME <u>1635</u>	Received By: <u>PH</u>
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 # <u>7</u> of <u>7</u>
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? ↓
<u>MW-9, MW-37, MW-38</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>7.6</u>		Corrected Temp (°C): <u>7.6</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>PL 1L EA</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>5.1</u>		
Corrected Temp (°C):	<u>5.1</u>		
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

estAmerica Des Moines SC

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Client Information		Sampler: <u>Nathan Morgan</u>		Lab PM: <u>Miller, Samuel</u>		Carrier Tracking No(s):		COC No: <u>310-104405-27797.1</u>	
Client Contact: <u>Nathan Ohrt</u>		Phone: <u>515-631-0778</u>		E-Mail: <u>Samuel.Miller@eurofins.com</u>		State of Origin:		Page: <u>Page 1 of 3</u>	
Company: <u>SCS Engineers</u>		PWSID:		Analysis Requested		Job #:		Preservation Codes.	
Address: <u>1690 All State Court Suite 100</u>		Due Date Requested:		Field Filtered Sample (Yes or No)		Appendix I		Appendix II	
City: <u>West Des Moines</u>		TAT Requested (days):		Perform MS/MSD (Yes or No)		Metals List (see note)		Appendix I VOCs	
State, Zip: <u>IA, 50265</u>		Compliance Project: <u>Δ Yes Δ No</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Phone: <u>319-331-9613(Tel)</u>		PO #: <u>27223255 25</u>		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=air)		Total Suspended Solids		2,4,6-TP [Silvex]	
Email: <u>nohrt@scsengineers.com</u>		WO #: <u>31006335</u>		Preservation Code:		Endosulfan I		Sulfide	
Project Name: <u>1st 2025 Semi-Annual Sampling</u>		SSOW#: <u></u>		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: <u>Muscatine County Sanitary Landfill</u>				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=air)	
MW-29		3/25/25		10:22		Water		Water	
MW-49BG		3/24/25		15:25		Water		Water	
MW-50BG		3/24/25		17:25		Water		Water	
MW-2		3/26/25		16:31		Water		Water	
MW-4		3/26/25		8:36		Water		Water	
MW-9		3/26/25		18:00		Water		Water	
MW-10A		3/24/25		16:12		Water		Water	
MW-11		3/24/25		14:26		Water		Water	
MW-12R		3/25/25		16:58		Water		Water	
MW-13		3/25/25		11:21		Water		Water	
MW-20									
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological ☐		Deliverable Requested I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		Special Instructions/QC Requirements.	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					

07-06

Carrier Tracking No(s):		COC No:	
310-104405-27797 2		310-104405-27797 2	
Page:		Page:	
Page 2 of 3		Page 2 of 3	
Job #:		Job #:	
State of Origin:		State of Origin:	
Samuel Miller@et.eurofinsus.com		Samuel Miller@et.eurofinsus.com	
Lab PM		Lab PM	
Miller, Samuel		Miller, Samuel	
E-Mail:		E-Mail:	
Samuel Miller@et.eurofinsus.com		Samuel Miller@et.eurofinsus.com	
PWSID:		PWSID:	
Due Date Requested:		Due Date Requested:	
TAT Requested (days):		TAT Requested (days):	
Compliance Project: ☐ Yes ☐ No		Compliance Project: ☐ Yes ☐ No	
PO #:		PO #:	
27223255 25		27223255 25	
WO #:		WO #:	
Project #:		Project #:	
31006335		31006335	
Site:		Site:	
Muscatine County Sanitary Landfill		Muscatine County Sanitary Landfill	
Sample Identification		Sample Identification	
MW-21		MW-21	
MW-22		MW-22	
MW-23		MW-23	
MW-24		MW-24	
MW-25		MW-25	
MW-26		MW-26	
MW-36		MW-36	
MW-37		MW-37	
MW-38		MW-38	
MW-39		MW-39	
MW-D1		MW-D1	
Possible Hazard Identification		Possible Hazard Identification	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	
Deliverable Requested I, II, III, IV, Other (specify)		Deliverable Requested I, II, III, IV, Other (specify)	
Empty Kit Relinquished by		Empty Kit Relinquished by	
Relinquished by		Relinquished by	
Relinquished by		Relinquished by	
Relinquished by		Relinquished by	
Custody Seal No.		Custody Seal No.	
A Yes A No		A Yes A No	

Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

214

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[illegible]

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Chain of Custody Record



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Environment Testing

Client Information (Sub Contract Lab)		Sampler N/A		Lab PM Miller, Samuel		Carrier Tracking No(s) N/A		COC No: 310-81633.1					
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 Lancaster Laboratories Environm				Accreditations Required (See note): State - Iowa; State Program - Iowa				Job #: 310-302994-1					
Address: 2425 New Holland Pike,		Due Date Requested: 4/10/2025		Analysis Requested						Preservation Codes:			
City: Lancaster		TAT Requested (days): N/A		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8151A/8151A_AP (MOD) 8151A APX 8151A/8151A_AP (MOD) 2,4,5-TP Silvex Total Number of containers						Other: N/A			
State, Zip: PA, 17601		PO #: N/A											
Phone: 717-656-2300(Tel)		WO #: N/A											
Email: N/A		Project #: 31006335											
Project Name: Muscatine County SLF 1st 2025 Semi-Annual Sampling		SSOW#: N/A											
Site: 310-SCS Muscatine Co SLF 1st 2024													
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=water/oil, ST=Tissue, A=Air)		Preservation Code:		Special Instructions/Note:	
MW-2 (310-302994-3)		3/24/25		17:25 Central		G		Water		X		2	
MW-10A (310-302994-6)		3/26/25		18:00 Central		G		Water		X		2	
MW-11 (310-302994-7)		3/24/25		16:12 Central		G		Water		X		2	
MW-12R (310-302994-8)		3/24/25		14:26 Central		G		Water		X		2	
MW-22 (310-302994-12)		3/25/25		15:48 Central		G		Water		X		2	
MW-24 (310-302994-14)		3/25/25		08:55 Central		G		Water		X		2	
MW-25 (310-302994-15)		3/25/25		18:34 Central		G		Water		X		2	
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	
Relinquished by:				Date/Time:		Company		Received by:		Date/Time:		Company	
Relinquished by:				Date/Time:		Company		Received by:		Date/Time:		Company	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 11.5 - 21.5 13.0 - 13.0									

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Phone 319-277-2401 Fax: 319-277-2425

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Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-302994-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 302994

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-302994-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 302994

List Number: 3

Creator: Scott, Sherri L

List Source: Eurofins Chicago

List Creation: 04/01/25 03:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-302994-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 302994

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 2

List Creation: 04/01/25 03:42 PM

Creator: Ballard, Megan

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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

Muscatine 2nd 2025 HMSP
Muscatine County Sanitary Landfill

JOB NUMBER

310-312334-1

Eurofins Cedar Falls

Job Notes

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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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8/14/2025 4:44:11 PM

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



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Case Narrative

Client: SCS Engineers
Project: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1

Job ID: 310-312334-1

Eurofins Cedar Falls

Job Narrative 310-312334-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 7/31/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1°C, 2.3°C and 4.8°C.

Receipt Exceptions

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): Sample #6 for 8151.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-462645 recovered outside of the control limits for Bromomethane (-21.9%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-462645/4).

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

Herbicides

Method 8151A: The laboratory control sample duplicate (LCSD) for preparation batch 500-828429 and analytical batch 500-828588 recovered outside control limits for the following analytes: Silvex (2,4,5-TP). These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

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

Pesticides

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

HPLC/IC

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

Metals

Method 6010D: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW-38 (310-312334-15). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following sample(s) was received with insufficient preservation at a pH of >2. MW-38 (310-312334-15). The sample(s) was preserved to the appropriate pH in the laboratory.

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.

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-312334-1	MW-29	Water	07/29/25 12:09	07/31/25 16:00	Iowa
310-312334-2	MW-2	Water	07/29/25 13:22	07/31/25 16:00	Iowa
310-312334-3	MW-4	Water	07/30/25 13:00	07/31/25 16:00	Iowa
310-312334-4	MW-9	Water	07/29/25 12:48	07/31/25 16:00	Iowa
310-312334-5	MW-11	Water	07/29/25 14:32	07/31/25 16:00	Iowa
310-312334-6	MW-12R	Water	07/29/25 16:52	07/31/25 16:00	Iowa
310-312334-7	MW-13	Water	07/29/25 18:24	07/31/25 16:00	Iowa
310-312334-8	MW-21	Water	07/29/25 14:00	07/31/25 16:00	Iowa
310-312334-9	MW-22	Water	07/29/25 15:12	07/31/25 16:00	Iowa
310-312334-10	MW-23	Water	07/30/25 10:38	07/31/25 16:00	Iowa
310-312334-11	MW-25	Water	07/29/25 16:10	07/31/25 16:00	Iowa
310-312334-12	MW-26	Water	07/30/25 11:58	07/31/25 16:00	Iowa
310-312334-13	MW-36	Water	07/30/25 12:28	07/31/25 16:00	Iowa
310-312334-14	MW-37	Water	07/30/25 11:07	07/31/25 16:00	Iowa
310-312334-15	MW-38	Water	07/30/25 14:11	07/31/25 16:00	Iowa
310-312334-16	MW-39	Water	07/30/25 13:31	07/31/25 16:00	Iowa
310-312334-17	MW-D1	Water	07/29/25 14:00	07/31/25 16:00	Iowa
310-312334-18	MW-D2	Water	07/29/25 16:10	07/31/25 16:00	Iowa
310-312334-19	Trip Blank 1	Water	07/30/25 00:00	07/31/25 16:00	Iowa
310-312334-20	Trip Blank 2	Water	07/30/25 00:00	07/31/25 16:00	Iowa
310-312334-21	Trip Blank 3	Water	07/30/25 00:00	07/31/25 16:00	Iowa

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-29

Lab Sample ID: 310-312334-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0706		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.75	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 310-312334-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00139	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.393		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000159	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.0344		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0150		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	13.8		3.75	2.63	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	45.9		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	18.4		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	1.94		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.0124		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.455		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000348	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	58.0		30.0	21.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 310-312334-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00108	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.115		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.38		1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 310-312334-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000756	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.125		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000283		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000255	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00338	J	0.00500	0.00320	mg/L	1		6020B	Total/NA

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.34	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	1.13		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	4.22		1.00	0.400	ug/L	1		8260D	Total/NA
Sulfate	6.13		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	43.1		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	4.04		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.0215		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	3.36		0.00800	0.00264	mg/L	4		6020B	Total/NA
Cobalt	0.0128		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0644		0.00500	0.00230	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R (Continued)

Lab Sample ID: 310-312334-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	128		30.0	21.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-13

Lab Sample ID: 310-312334-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.462	J	1.00	0.220	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	9.38		1.00	0.210	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.354	J	1.00	0.270	ug/L	1		8260D	Total/NA
Vinyl chloride	1.84		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.00535		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.577		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	21.0		15.0	10.5	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 310-312334-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000612	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0718		0.00200	0.000660	mg/L	1		6020B	Total/NA
Chromium	0.00236	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.00433	J	0.00500	0.00230	mg/L	1		6020B	Total/NA
Zinc	0.0457		0.0200	0.0130	mg/L	1		6020B	Total/NA

Client Sample ID: MW-22

Lab Sample ID: 310-312334-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000587	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.246		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.324	J	1.00	0.230	ug/L	1		8260D	Total/NA
Benzene	2.01		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	11.5		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	2.20	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.451	J	1.00	0.210	ug/L	1		8260D	Total/NA
Sulfate	9.48		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	22.5		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	0.828		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.0464		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.500		0.00200	0.000660	mg/L	1		6020B	Total/NA
Chromium	0.0599		0.00500	0.00180	mg/L	1		6020B	Total/NA
Cobalt	0.00641		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00951		0.00500	0.00320	mg/L	1		6020B	Total/NA
Lead	0.00318		0.000500	0.000330	mg/L	1		6020B	Total/NA
Nickel	0.0604		0.00500	0.00230	mg/L	1		6020B	Total/NA
Vanadium	0.00474	J	0.00500	0.00170	mg/L	1		6020B	Total/NA
Zinc	0.0289		0.0200	0.0130	mg/L	1		6020B	Total/NA
Total Suspended Solids	244		60.0	42.0	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-312334-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000616	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.195		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	4.86		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	0.673		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	0.0335		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.000791	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0342		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000674		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000708		0.000500	0.000330	mg/L	1		6020B	Total/NA
Vanadium	0.00190	J	0.00500	0.00170	mg/L	1		6020B	Total/NA
Sulfide	0.710	J	1.00	0.231	mg/L	1		9034	Total/NA
Total Suspended Solids	54.0		15.0	10.5	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	18.1		1.00	0.420	mg/L	1		9056A	Total/NA
Manganese	0.0124		0.0100	0.00410	mg/L	1		6010D	Total/NA
Barium	0.279		0.00200	0.000660	mg/L	1		6020B	Total/NA
Nickel	0.00457	J	0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.00428	J	0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.000822	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.126		0.00200	0.000660	mg/L	1		6020B	Total/NA
Total Suspended Solids	59.5		3.75	2.63	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.348	J	1.00	0.220	ug/L	1		8260D	Total/NA
1,4-Dichlorobenzene	1.15		1.00	0.230	ug/L	1		8260D	Total/NA
Acetone	13.4		10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	4.35		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	16.2		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	1.60	J	4.00	0.790	ug/L	1		8260D	Total/NA
Endosulfan I	0.0671	J	0.0949	0.0266	ug/L	1		8081B	Total/NA
Sulfate	5.69		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	26.0		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	2.02		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.0595		0.0400	0.0106	mg/L	20		6020B	Total/NA
Barium	14.1		0.0400	0.0132	mg/L	20		6020B	Total/NA
Chromium	0.00198	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Cobalt	0.0346		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0685		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	74.0		30.0	21.0	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-312334-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.491	J	1.00	0.400	ug/L	1		8260D	Total/NA
Sulfate	28.3		1.00	0.420	mg/L	1		9056A	Total/NA
Iron	2.43		0.500	0.0790	mg/L	1		6010D	Total/NA
Manganese	1.43		0.0100	0.00410	mg/L	1		6010D	Total/NA
Arsenic	0.00467		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.181		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00372		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0122		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	13.5		3.75	2.63	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D1

Lab Sample ID: 310-312334-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0746		0.00200	0.000660	mg/L	1		6020B	Total/NA
Chromium	0.00233	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.00436	J	0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-D2

Lab Sample ID: 310-312334-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.213		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-312334-19

No Detections.

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-312334-20

No Detections.

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-312334-21

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-29

Lab Sample ID: 310-312334-1

Date Collected: 07/29/25 12:09

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 14:51	1
Barium	0.0706		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 14:51	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 14:51	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 14:51	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 14:51	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 14:51	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 14:51	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 14:51	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 14:51	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			08/01/25 16:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-2

Lab Sample ID: 310-312334-2

Date Collected: 07/29/25 13:22

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00139	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 14:54	1
Barium	0.393		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 14:54	1
Cadmium	0.000159	J	0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 14:54	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 14:54	1
Cobalt	0.0344		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 14:54	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 14:54	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 14:54	1
Nickel	0.0150		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 14:54	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	13.8		3.75	2.63	mg/L			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

Date Collected: 07/30/25 13:00

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 20:39	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 20:39	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 20:39	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 20:39	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 20:39	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 20:39	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 20:39	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 20:39	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 20:39	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 20:39	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 20:39	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 20:39	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 20:39	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 20:39	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 20:39	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 20:39	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 20:39	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 20:39	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 20:39	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 20:39	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 20:39	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 20:39	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 20:39	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 20:39	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 20:39	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 20:39	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 20:39	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 20:39	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 20:39	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 20:39	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 20:39	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 20:39	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 20:39	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 20:39	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 20:39	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 20:39	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 20:39	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 20:39	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 20:39	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 20:39	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 20:39	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 20:39	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 20:39	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 20:39	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 20:39	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 20:39	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 20:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		76 - 130		08/05/25 20:39	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

Date Collected: 07/30/25 13:00

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		08/05/25 20:39	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/05/25 20:39	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	45.9		1.00	0.420	mg/L			07/31/25 17:20	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18.4		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:21	1
Manganese	1.94		0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:21	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		08/04/25 09:30	08/07/25 14:56	1
Arsenic	0.0124		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 14:56	1
Barium	0.455		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 14:56	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 14:56	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 14:56	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 14:56	1
Cobalt	0.000348 J		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 14:56	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 14:56	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 14:56	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 14:56	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 14:56	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 14:56	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 14:56	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 14:56	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 14:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	58.0		30.0	21.0	mg/L			08/01/25 16:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-9

Lab Sample ID: 310-312334-4

Date Collected: 07/29/25 12:48

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 18:01	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 18:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 18:01	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 18:01	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 18:01	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 18:01	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 18:01	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 18:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 18:01	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 18:01	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 18:01	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 18:01	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 18:01	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 18:01	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 18:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 18:01	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 18:01	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 18:01	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 18:01	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 18:01	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 18:01	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 18:01	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 18:01	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 18:01	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 18:01	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 18:01	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 18:01	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 18:01	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 18:01	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 18:01	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 18:01	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 18:01	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 18:01	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 18:01	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 18:01	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 18:01	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 18:01	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 18:01	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 18:01	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 18:01	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 18:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 18:01	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 18:01	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 18:01	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 18:01	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 18:01	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		76 - 130		08/05/25 18:01	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-9

Lab Sample ID: 310-312334-4

Date Collected: 07/29/25 12:48

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 18:01	1
4-Bromofluorobenzene (Surr)	98		80 - 120		08/05/25 18:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00108	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 14:59	1
Barium	0.115		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 14:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 14:59	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 14:59	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 14:59	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 14:59	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 14:59	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 14:59	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 14:59	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	1.31	mg/L			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-312334-5

Date Collected: 07/29/25 14:32

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 18:24	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 18:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 18:24	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 18:24	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 18:24	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 18:24	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 18:24	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 18:24	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 18:24	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 18:24	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 18:24	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 18:24	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 18:24	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 18:24	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 18:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 18:24	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 18:24	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 18:24	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 18:24	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 18:24	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 18:24	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 18:24	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 18:24	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 18:24	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 18:24	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 18:24	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 18:24	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 18:24	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 18:24	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 18:24	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 18:24	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 18:24	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 18:24	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 18:24	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 18:24	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 18:24	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 18:24	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 18:24	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 18:24	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 18:24	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 18:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 18:24	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 18:24	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 18:24	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 18:24	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 18:24	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		76 - 130		08/05/25 18:24	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-11

Lab Sample ID: 310-312334-5

Date Collected: 07/29/25 14:32

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		08/05/25 18:24	1
4-Bromofluorobenzene (Surr)	101		80 - 120		08/05/25 18:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000756	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:02	1
Barium	0.125		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:02	1
Cadmium	0.000283		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:02	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:02	1
Cobalt	0.000255	J	0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:02	1
Copper	0.00338	J	0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:02	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:02	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:02	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

Date Collected: 07/29/25 16:52

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 18:46	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 18:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 18:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 18:46	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 18:46	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 18:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 18:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 18:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 18:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 18:46	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 18:46	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 18:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 18:46	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 18:46	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 18:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 18:46	1
Acetone	8.34	J	10.0	3.10	ug/L			08/05/25 18:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 18:46	1
Benzene	1.13		0.500	0.220	ug/L			08/05/25 18:46	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 18:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 18:46	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 18:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 18:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 18:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 18:46	1
Chlorobenzene	4.22		1.00	0.400	ug/L			08/05/25 18:46	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 18:46	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 18:46	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 18:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 18:46	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 18:46	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 18:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 18:46	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 18:46	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 18:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 18:46	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 18:46	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 18:46	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 18:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 18:46	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 18:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 18:46	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 18:46	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 18:46	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 18:46	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 18:46	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		76 - 130		08/05/25 18:46	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

Date Collected: 07/29/25 16:52

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 18:46	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/05/25 18:46	1

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<1.00	+	1.00	0.105	ug/L		08/04/25 07:24	08/04/25 23:17	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	6.13		1.00	0.420	mg/L			07/31/25 19:09	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	43.1		0.500	0.0790	mg/L		08/12/25 09:00	08/12/25 16:18	1
Manganese	4.04		0.0100	0.00410	mg/L		08/12/25 09:00	08/12/25 16:18	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		08/04/25 09:30	08/07/25 15:05	1
Arsenic	0.0215		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:05	1
Barium	3.36		0.00800	0.00264	mg/L		08/04/25 09:30	08/08/25 16:15	4
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:05	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:05	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:05	1
Cobalt	0.0128		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:05	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:05	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:05	1
Nickel	0.0644		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:05	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:05	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:05	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:05	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:05	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	128		30.0	21.0	mg/L			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-13

Lab Sample ID: 310-312334-7

Date Collected: 07/29/25 18:24

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 19:09	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 19:09	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 19:09	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 19:09	1
1,1-Dichloroethane	0.462	J	1.00	0.220	ug/L			08/05/25 19:09	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 19:09	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 19:09	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 19:09	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 19:09	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 19:09	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 19:09	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 19:09	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 19:09	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 19:09	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 19:09	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 19:09	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 19:09	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 19:09	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 19:09	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 19:09	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 19:09	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 19:09	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 19:09	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 19:09	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 19:09	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 19:09	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 19:09	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 19:09	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 19:09	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 19:09	1
cis-1,2-Dichloroethene	9.38		1.00	0.210	ug/L			08/05/25 19:09	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 19:09	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 19:09	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 19:09	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 19:09	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 19:09	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 19:09	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 19:09	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 19:09	1
trans-1,2-Dichloroethene	0.354	J	1.00	0.270	ug/L			08/05/25 19:09	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 19:09	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 19:09	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 19:09	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 19:09	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 19:09	1
Vinyl chloride	1.84		1.00	0.180	ug/L			08/05/25 19:09	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 19:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		76 - 130		08/05/25 19:09	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-13

Lab Sample ID: 310-312334-7

Date Collected: 07/29/25 18:24

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 19:09	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/05/25 19:09	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		08/04/25 09:30	08/07/25 15:16	1
Arsenic	0.00535		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:16	1
Barium	0.577		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:16	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:16	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:16	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:16	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:16	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:16	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:16	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:16	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:16	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:16	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:16	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:16	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	21.0		15.0	10.5	mg/L			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-21

Lab Sample ID: 310-312334-8

Date Collected: 07/29/25 14:00

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000612	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:19	1
Barium	0.0718		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:19	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:19	1
Chromium	0.00236	J	0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:19	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:19	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:19	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:19	1
Nickel	0.00433	J	0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:19	1
Zinc	0.0457		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:19	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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-312334-9

Date Collected: 07/29/25 15:12

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 19:32	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 19:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 19:32	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 19:32	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 19:32	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 19:32	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 19:32	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 19:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 19:32	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 19:32	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 19:32	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 19:32	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 19:32	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 19:32	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 19:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 19:32	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 19:32	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 19:32	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 19:32	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 19:32	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 19:32	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 19:32	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 19:32	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 19:32	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 19:32	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 19:32	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 19:32	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 19:32	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 19:32	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 19:32	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 19:32	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 19:32	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 19:32	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 19:32	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 19:32	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 19:32	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 19:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 19:32	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 19:32	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 19:32	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 19:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 19:32	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 19:32	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 19:32	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 19:32	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 19:32	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		76 - 130		08/05/25 19:32	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-22

Lab Sample ID: 310-312334-9

Date Collected: 07/29/25 15:12

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		08/05/25 19:32	1
4-Bromofluorobenzene (Surr)	98		80 - 120		08/05/25 19:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000587	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:22	1
Barium	0.246		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:22	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:22	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:22	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:22	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:22	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:22	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:22	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:22	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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

Date Collected: 07/30/25 10:38

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 21:02	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 21:02	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 21:02	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 21:02	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 21:02	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 21:02	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 21:02	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 21:02	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 21:02	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 21:02	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 21:02	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 21:02	1
1,4-Dichlorobenzene	0.324	J	1.00	0.230	ug/L			08/05/25 21:02	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 21:02	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 21:02	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 21:02	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 21:02	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 21:02	1
Benzene	2.01		0.500	0.220	ug/L			08/05/25 21:02	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 21:02	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 21:02	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 21:02	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 21:02	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 21:02	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 21:02	1
Chlorobenzene	11.5		1.00	0.400	ug/L			08/05/25 21:02	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 21:02	1
Chloroethane	2.20	J	4.00	0.790	ug/L			08/05/25 21:02	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 21:02	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 21:02	1
cis-1,2-Dichloroethene	0.451	J	1.00	0.210	ug/L			08/05/25 21:02	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 21:02	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 21:02	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 21:02	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 21:02	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 21:02	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 21:02	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 21:02	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 21:02	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 21:02	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 21:02	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 21:02	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 21:02	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 21:02	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 21:02	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 21:02	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		76 - 130		08/05/25 21:02	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

Date Collected: 07/30/25 10:38

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 21:02	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/05/25 21:02	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	9.48		1.00	0.420	mg/L			07/31/25 17:57	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	22.5		0.500	0.0790	mg/L		08/12/25 09:00	08/12/25 16:19	1
Manganese	0.828		0.0100	0.00410	mg/L		08/12/25 09:00	08/12/25 16:19	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		08/04/25 09:30	08/07/25 15:25	1
Arsenic	0.0464		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:25	1
Barium	0.500		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:25	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:25	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:25	1
Chromium	0.0599		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:25	1
Cobalt	0.00641		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:25	1
Copper	0.00951		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:25	1
Lead	0.00318		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:25	1
Nickel	0.0604		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:25	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:25	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:25	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:25	1
Vanadium	0.00474 J		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:25	1
Zinc	0.0289		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	244		60.0	42.0	mg/L			08/04/25 15:10	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-25

Lab Sample ID: 310-312334-11

Date Collected: 07/29/25 16:10

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000616	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:28	1
Barium	0.195		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:28	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:28	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:28	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:28	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:28	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:28	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:28	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:28	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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

Date Collected: 07/30/25 11:58

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 21:24	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 21:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 21:24	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 21:24	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 21:24	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 21:24	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 21:24	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 21:24	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 21:24	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 21:24	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 21:24	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 21:24	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 21:24	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 21:24	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 21:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 21:24	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 21:24	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 21:24	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 21:24	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 21:24	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 21:24	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 21:24	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 21:24	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 21:24	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 21:24	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 21:24	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 21:24	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 21:24	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 21:24	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 21:24	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 21:24	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 21:24	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 21:24	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 21:24	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 21:24	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 21:24	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 21:24	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 21:24	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 21:24	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 21:24	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 21:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 21:24	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 21:24	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 21:24	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 21:24	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 21:24	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 21:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		76 - 130		08/05/25 21:24	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

Date Collected: 07/30/25 11:58

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 21:24	1
4-Bromofluorobenzene (Surr)	101		80 - 120		08/05/25 21:24	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	4.86		1.00	0.420	mg/L			07/31/25 18:09	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.673		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:30	1
Manganese	0.0335		0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:30	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		08/04/25 09:30	08/07/25 15:31	1
Arsenic	0.000791	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:31	1
Barium	0.0342		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:31	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:31	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:31	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:31	1
Cobalt	0.000674		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:31	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:31	1
Lead	0.000708		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:31	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:31	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:31	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:31	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:31	1
Vanadium	0.00190	J	0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:31	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	0.710	J	1.00	0.231	mg/L		08/04/25 18:12	08/05/25 03:00	1
Total Suspended Solids (USGS I-3765-85)	54.0		15.0	10.5	mg/L			08/04/25 15:10	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

Date Collected: 07/30/25 12:28

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 21:47	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 21:47	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 21:47	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 21:47	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 21:47	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 21:47	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 21:47	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 21:47	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 21:47	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 21:47	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 21:47	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 21:47	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 21:47	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 21:47	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 21:47	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 21:47	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 21:47	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 21:47	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 21:47	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 21:47	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 21:47	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 21:47	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 21:47	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 21:47	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 21:47	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 21:47	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 21:47	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 21:47	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 21:47	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 21:47	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 21:47	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 21:47	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 21:47	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 21:47	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 21:47	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 21:47	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 21:47	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 21:47	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 21:47	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 21:47	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 21:47	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 21:47	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 21:47	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 21:47	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 21:47	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 21:47	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		76 - 130		08/05/25 21:47	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

Date Collected: 07/30/25 12:28

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/05/25 21:47	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/05/25 21:47	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	18.1		1.00	0.420	mg/L			07/31/25 18:21	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:31	1
Manganese	0.0124		0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:31	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		08/04/25 09:30	08/07/25 15:34	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:34	1
Barium	0.279		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:34	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:34	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:34	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:34	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:34	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:34	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:34	1
Nickel	0.00457	J	0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:34	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:34	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:34	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:34	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:34	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:34	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			08/04/25 15:10	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

Date Collected: 07/30/25 11:07

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 22:09	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 22:09	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 22:09	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 22:09	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 22:09	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 22:09	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 22:09	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 22:09	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 22:09	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 22:09	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 22:09	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 22:09	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 22:09	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 22:09	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 22:09	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 22:09	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 22:09	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 22:09	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 22:09	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 22:09	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 22:09	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 22:09	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 22:09	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 22:09	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 22:09	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 22:09	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 22:09	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 22:09	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 22:09	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 22:09	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 22:09	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 22:09	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 22:09	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 22:09	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 22:09	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 22:09	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 22:09	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 22:09	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 22:09	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 22:09	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 22:09	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 22:09	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 22:09	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 22:09	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 22:09	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 22:09	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		76 - 130		08/05/25 22:09	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

Date Collected: 07/30/25 11:07

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		08/05/25 22:09	1
4-Bromofluorobenzene (Surr)	101		80 - 120		08/05/25 22:09	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00	0.420	mg/L			07/31/25 18:33	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:33	1
Manganese	0.00428	J	0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:33	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		08/04/25 09:30	08/07/25 15:36	1
Arsenic	0.000822	J	0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 15:36	1
Barium	0.126		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 15:36	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 15:36	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 15:36	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 15:36	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 15:36	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 15:36	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 15:36	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 15:36	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 15:36	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 15:36	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 15:36	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 15:36	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	59.5		3.75	2.63	mg/L			08/04/25 15:10	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Date Collected: 07/30/25 14:11

Matrix: Water

Date Received: 07/31/25 16:00

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			08/05/25 22:32	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 22:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 22:32	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 22:32	1
1,1-Dichloroethane	0.348	J	1.00	0.220	ug/L			08/05/25 22:32	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 22:32	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 22:32	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 22:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 22:32	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 22:32	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 22:32	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 22:32	1
1,4-Dichlorobenzene	1.15		1.00	0.230	ug/L			08/05/25 22:32	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 22:32	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 22:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 22:32	1
Acetone	13.4		10.0	3.10	ug/L			08/05/25 22:32	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 22:32	1
Benzene	4.35		0.500	0.220	ug/L			08/05/25 22:32	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 22:32	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 22:32	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 22:32	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 22:32	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 22:32	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 22:32	1
Chlorobenzene	16.2		1.00	0.400	ug/L			08/05/25 22:32	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 22:32	1
Chloroethane	1.60	J	4.00	0.790	ug/L			08/05/25 22:32	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 22:32	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 22:32	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 22:32	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 22:32	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 22:32	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 22:32	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 22:32	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 22:32	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 22:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 22:32	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 22:32	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 22:32	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 22:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 22:32	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 22:32	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 22:32	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 22:32	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 22:32	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	102		76 - 130		08/05/25 22:32	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Date Collected: 07/30/25 14:11

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		08/05/25 22:32	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/05/25 22:32	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	0.0671	J	0.0949	0.0266	ug/L		08/05/25 09:21	08/05/25 20:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	30		10 - 150				08/05/25 09:21	08/05/25 20:50	1
Tetrachloro-m-xylene (Surr)	79		17 - 150				08/05/25 09:21	08/05/25 20:50	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	5.69		1.00	0.420	mg/L			07/31/25 18:45	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	26.0		0.500	0.0790	mg/L		08/13/25 09:30	08/14/25 15:09	1
Manganese	2.02		0.0100	0.00410	mg/L		08/13/25 09:30	08/14/25 15:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0400		0.0400	0.0200	mg/L		08/05/25 09:00	08/07/25 14:08	20
Arsenic	0.0595		0.0400	0.0106	mg/L		08/05/25 09:00	08/07/25 14:08	20
Barium	14.1		0.0400	0.0132	mg/L		08/05/25 09:00	08/07/25 14:08	20
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/05/25 09:00	08/06/25 15:26	1
Cadmium	<0.00400		0.00400	0.00200	mg/L		08/05/25 09:00	08/07/25 14:08	20
Chromium	0.00198	J	0.00500	0.00180	mg/L		08/05/25 09:00	08/06/25 15:26	1
Cobalt	0.0346		0.000500	0.000170	mg/L		08/05/25 09:00	08/06/25 15:26	1
Copper	<0.100		0.100	0.0640	mg/L		08/05/25 09:00	08/07/25 14:08	20
Lead	<0.000500		0.000500	0.000330	mg/L		08/05/25 09:00	08/06/25 15:26	1
Nickel	0.0685		0.00500	0.00230	mg/L		08/05/25 09:00	08/06/25 15:26	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/05/25 09:00	08/06/25 15:26	1
Silver	<0.0200		0.0200	0.0100	mg/L		08/05/25 09:00	08/07/25 14:08	20
Thallium	<0.00100		0.00100	0.000570	mg/L		08/05/25 09:00	08/06/25 15:26	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/05/25 09:00	08/06/25 15:26	1
Zinc	<0.400		0.400	0.260	mg/L		08/05/25 09:00	08/07/25 14:08	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	74.0		30.0	21.0	mg/L			08/04/25 15:10	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-312334-16

Date Collected: 07/30/25 13:31

Matrix: Water

Date Received: 07/31/25 16:00

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			08/06/25 06:48	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/06/25 06:48	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/06/25 06:48	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/06/25 06:48	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/06/25 06:48	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/06/25 06:48	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/06/25 06:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/06/25 06:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/06/25 06:48	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/06/25 06:48	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/06/25 06:48	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/06/25 06:48	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/06/25 06:48	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/06/25 06:48	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/06/25 06:48	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/06/25 06:48	1
Acetone	<10.0		10.0	3.10	ug/L			08/06/25 06:48	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/06/25 06:48	1
Benzene	<0.500		0.500	0.220	ug/L			08/06/25 06:48	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/06/25 06:48	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/06/25 06:48	1
Bromoform	<5.00		5.00	0.780	ug/L			08/06/25 06:48	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/06/25 06:48	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/06/25 06:48	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/06/25 06:48	1
Chlorobenzene	0.491 J		1.00	0.400	ug/L			08/06/25 06:48	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/06/25 06:48	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/06/25 06:48	1
Chloroform	<3.00		3.00	1.30	ug/L			08/06/25 06:48	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/06/25 06:48	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/06/25 06:48	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/06/25 06:48	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/06/25 06:48	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/06/25 06:48	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/06/25 06:48	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/06/25 06:48	1
Styrene	<1.00		1.00	0.370	ug/L			08/06/25 06:48	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/06/25 06:48	1
Toluene	<1.00		1.00	0.430	ug/L			08/06/25 06:48	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/06/25 06:48	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/06/25 06:48	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/06/25 06:48	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/06/25 06:48	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/06/25 06:48	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/06/25 06:48	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/06/25 06:48	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/06/25 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130		08/06/25 06:48	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39

Lab Sample ID: 310-312334-16

Date Collected: 07/30/25 13:31

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/06/25 06:48	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/06/25 06:48	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	<0.0956		0.0956	0.0268	ug/L		08/05/25 09:21	08/05/25 21:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	71		10 - 150				08/05/25 09:21	08/05/25 21:03	1
Tetrachloro-m-xylene (Surr)	75		17 - 150				08/05/25 09:21	08/05/25 21:03	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	28.3		1.00	0.420	mg/L			07/31/25 18:57	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.43		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:34	1
Manganese	1.43		0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:34	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		08/05/25 09:00	08/06/25 15:35	1
Arsenic	0.00467		0.00200	0.000530	mg/L		08/05/25 09:00	08/06/25 15:35	1
Barium	0.181		0.00200	0.000660	mg/L		08/05/25 09:00	08/06/25 15:35	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/05/25 09:00	08/06/25 15:35	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/05/25 09:00	08/06/25 15:35	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/05/25 09:00	08/06/25 15:35	1
Cobalt	0.00372		0.000500	0.000170	mg/L		08/05/25 09:00	08/06/25 15:35	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/05/25 09:00	08/06/25 15:35	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/05/25 09:00	08/06/25 15:35	1
Nickel	0.0122		0.00500	0.00230	mg/L		08/05/25 09:00	08/06/25 15:35	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/05/25 09:00	08/06/25 15:35	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/05/25 09:00	08/06/25 15:35	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/05/25 09:00	08/06/25 15:35	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/05/25 09:00	08/06/25 15:35	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/05/25 09:00	08/06/25 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	13.5		3.75	2.63	mg/L			08/04/25 15:10	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D1

Lab Sample ID: 310-312334-17

Date Collected: 07/29/25 14:00

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/05/25 09:00	08/06/25 15:38	1
Barium	0.0746		0.00200	0.000660	mg/L		08/05/25 09:00	08/06/25 15:38	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/05/25 09:00	08/06/25 15:38	1
Chromium	0.00233	J	0.00500	0.00180	mg/L		08/05/25 09:00	08/06/25 15:38	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/05/25 09:00	08/06/25 15:38	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/05/25 09:00	08/06/25 15:38	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/05/25 09:00	08/06/25 15:38	1
Nickel	0.00436	J	0.00500	0.00230	mg/L		08/05/25 09:00	08/06/25 15:38	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/05/25 09:00	08/06/25 15:38	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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D2

Lab Sample ID: 310-312334-18

Date Collected: 07/29/25 16:10

Matrix: Water

Date Received: 07/31/25 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/05/25 09:00	08/06/25 15:41	1
Barium	0.213		0.00200	0.000660	mg/L		08/05/25 09:00	08/06/25 15:41	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/05/25 09:00	08/06/25 15:41	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/05/25 09:00	08/06/25 15:41	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/05/25 09:00	08/06/25 15:41	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/05/25 09:00	08/06/25 15:41	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/05/25 09:00	08/06/25 15:41	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/05/25 09:00	08/06/25 15:41	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/05/25 09:00	08/06/25 15:41	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			08/04/25 14:35	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-312334-19

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

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			08/06/25 04:10	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/06/25 04:10	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/06/25 04:10	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/06/25 04:10	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/06/25 04:10	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/06/25 04:10	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/06/25 04:10	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/06/25 04:10	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/06/25 04:10	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/06/25 04:10	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/06/25 04:10	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/06/25 04:10	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/06/25 04:10	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/06/25 04:10	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/06/25 04:10	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/06/25 04:10	1
Acetone	<10.0		10.0	3.10	ug/L			08/06/25 04:10	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/06/25 04:10	1
Benzene	<0.500		0.500	0.220	ug/L			08/06/25 04:10	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/06/25 04:10	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/06/25 04:10	1
Bromoform	<5.00		5.00	0.780	ug/L			08/06/25 04:10	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/06/25 04:10	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/06/25 04:10	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/06/25 04:10	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/06/25 04:10	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/06/25 04:10	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/06/25 04:10	1
Chloroform	<3.00		3.00	1.30	ug/L			08/06/25 04:10	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/06/25 04:10	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/06/25 04:10	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/06/25 04:10	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/06/25 04:10	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/06/25 04:10	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/06/25 04:10	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/06/25 04:10	1
Styrene	<1.00		1.00	0.370	ug/L			08/06/25 04:10	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/06/25 04:10	1
Toluene	<1.00		1.00	0.430	ug/L			08/06/25 04:10	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/06/25 04:10	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/06/25 04:10	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/06/25 04:10	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/06/25 04:10	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/06/25 04:10	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/06/25 04:10	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/06/25 04:10	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/06/25 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	103		76 - 130		08/06/25 04:10	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 1
Date Collected: 07/30/25 00:00
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-19
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		08/06/25 04:10	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/06/25 04:10	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-312334-20

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

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			08/06/25 04:32	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/06/25 04:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/06/25 04:32	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/06/25 04:32	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/06/25 04:32	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/06/25 04:32	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/06/25 04:32	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/06/25 04:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/06/25 04:32	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/06/25 04:32	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/06/25 04:32	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/06/25 04:32	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/06/25 04:32	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/06/25 04:32	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/06/25 04:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/06/25 04:32	1
Acetone	<10.0		10.0	3.10	ug/L			08/06/25 04:32	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/06/25 04:32	1
Benzene	<0.500		0.500	0.220	ug/L			08/06/25 04:32	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/06/25 04:32	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/06/25 04:32	1
Bromoform	<5.00		5.00	0.780	ug/L			08/06/25 04:32	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/06/25 04:32	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/06/25 04:32	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/06/25 04:32	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/06/25 04:32	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/06/25 04:32	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/06/25 04:32	1
Chloroform	<3.00		3.00	1.30	ug/L			08/06/25 04:32	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/06/25 04:32	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/06/25 04:32	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/06/25 04:32	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/06/25 04:32	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/06/25 04:32	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/06/25 04:32	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/06/25 04:32	1
Styrene	<1.00		1.00	0.370	ug/L			08/06/25 04:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/06/25 04:32	1
Toluene	<1.00		1.00	0.430	ug/L			08/06/25 04:32	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/06/25 04:32	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/06/25 04:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/06/25 04:32	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/06/25 04:32	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/06/25 04:32	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/06/25 04:32	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/06/25 04:32	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/06/25 04:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		76 - 130		08/06/25 04:32	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-312334-20

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		08/06/25 04:32	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/06/25 04:32	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-312334-21

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

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			08/06/25 04:55	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/06/25 04:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/06/25 04:55	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/06/25 04:55	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/06/25 04:55	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/06/25 04:55	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/06/25 04:55	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/06/25 04:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/06/25 04:55	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/06/25 04:55	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/06/25 04:55	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/06/25 04:55	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/06/25 04:55	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/06/25 04:55	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/06/25 04:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/06/25 04:55	1
Acetone	<10.0		10.0	3.10	ug/L			08/06/25 04:55	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/06/25 04:55	1
Benzene	<0.500		0.500	0.220	ug/L			08/06/25 04:55	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/06/25 04:55	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/06/25 04:55	1
Bromoform	<5.00		5.00	0.780	ug/L			08/06/25 04:55	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/06/25 04:55	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/06/25 04:55	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/06/25 04:55	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/06/25 04:55	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/06/25 04:55	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/06/25 04:55	1
Chloroform	<3.00		3.00	1.30	ug/L			08/06/25 04:55	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/06/25 04:55	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/06/25 04:55	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/06/25 04:55	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/06/25 04:55	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/06/25 04:55	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/06/25 04:55	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/06/25 04:55	1
Styrene	<1.00		1.00	0.370	ug/L			08/06/25 04:55	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/06/25 04:55	1
Toluene	<1.00		1.00	0.430	ug/L			08/06/25 04:55	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/06/25 04:55	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/06/25 04:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/06/25 04:55	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/06/25 04:55	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/06/25 04:55	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/06/25 04:55	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/06/25 04:55	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/06/25 04:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		76 - 130		08/06/25 04:55	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-312334-21

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		08/06/25 04:55	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/06/25 04:55	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Qualifiers

GC/MS VOA

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

GC Semi VOA

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.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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

Definitions/Glossary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

1
2
3
4
5
6
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15

Surrogate Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-312334-3	MW-4	101	103	99
310-312334-3 MS	MW-4	97	106	95
310-312334-3 MSD	MW-4	95	106	98
310-312334-4	MW-9	101	101	98
310-312334-5	MW-11	100	102	101
310-312334-6	MW-12R	101	101	100
310-312334-7	MW-13	104	101	100
310-312334-9	MW-22	102	100	98
310-312334-10	MW-23	101	101	100
310-312334-12	MW-26	99	101	101
310-312334-13	MW-36	102	101	100
310-312334-14	MW-37	100	103	101
310-312334-15	MW-38	102	102	99
310-312334-16	MW-39	106	101	99
310-312334-19	Trip Blank 1	103	102	99
310-312334-20	Trip Blank 2	104	101	100
310-312334-21	Trip Blank 3	105	103	100
LCS 310-462645/7	Lab Control Sample	95	107	97
LCS 310-462645/8	Lab Control Sample	101	104	101
LCS 310-462648/8	Lab Control Sample	94	107	96
LCS 310-462648/9	Lab Control Sample	104	99	101
MB 310-462645/6	Method Blank	98	101	99
MB 310-462648/7	Method Blank	105	101	98

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (10-150)	TCX1 (17-150)
310-312334-15	MW-38	30	79
310-312334-16	MW-39	71	75
LB 310-462156/1-E	Method Blank	62	91
LCS 310-462638/2-A	Lab Control Sample	44	61
MB 310-462638/1-A	Method Blank	44	72

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-462645/6

Matrix: Water

Analysis Batch: 462645

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			08/05/25 14:37	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/05/25 14:37	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/05/25 14:37	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/05/25 14:37	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/05/25 14:37	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/05/25 14:37	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/05/25 14:37	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/05/25 14:37	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/05/25 14:37	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/05/25 14:37	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/05/25 14:37	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/05/25 14:37	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/05/25 14:37	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/05/25 14:37	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/05/25 14:37	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/05/25 14:37	1
Acetone	<10.0		10.0	3.10	ug/L			08/05/25 14:37	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/05/25 14:37	1
Benzene	<0.500		0.500	0.220	ug/L			08/05/25 14:37	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/05/25 14:37	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/05/25 14:37	1
Bromoform	<5.00		5.00	0.780	ug/L			08/05/25 14:37	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/05/25 14:37	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/05/25 14:37	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/05/25 14:37	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/05/25 14:37	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/05/25 14:37	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/05/25 14:37	1
Chloroform	<3.00		3.00	1.30	ug/L			08/05/25 14:37	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/05/25 14:37	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/05/25 14:37	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/05/25 14:37	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/05/25 14:37	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/05/25 14:37	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/05/25 14:37	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/05/25 14:37	1
Styrene	<1.00		1.00	0.370	ug/L			08/05/25 14:37	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/05/25 14:37	1
Toluene	<1.00		1.00	0.430	ug/L			08/05/25 14:37	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/05/25 14:37	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/05/25 14:37	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/05/25 14:37	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/05/25 14:37	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/05/25 14:37	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/05/25 14:37	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/05/25 14:37	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/05/25 14:37	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-462645/6

Matrix: Water

Analysis Batch: 462645

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		76 - 130		08/05/25 14:37	1
Toluene-d8 (Surr)	101		80 - 120		08/05/25 14:37	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/05/25 14:37	1

Lab Sample ID: LCS 310-462645/7

Matrix: Water

Analysis Batch: 462645

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	16.28		ug/L		81	70 - 121
1,1,1-Trichloroethane	20.0	17.51		ug/L		88	69 - 130
1,1,1,2,2-Tetrachloroethane	20.0	21.08		ug/L		105	70 - 122
1,1,2-Trichloroethane	20.0	19.11		ug/L		96	75 - 121
1,1-Dichloroethane	20.0	20.68		ug/L		103	69 - 127
1,1-Dichloroethene	20.0	19.63		ug/L		98	64 - 134
1,2,3-Trichloropropane	20.0	20.09		ug/L		100	70 - 122
1,2-Dibromo-3-chloropropane	20.0	19.11		ug/L		96	62 - 132
1,2-Dibromoethane (EDB)	20.0	18.37		ug/L		92	74 - 122
1,2-Dichlorobenzene	20.0	19.24		ug/L		96	74 - 120
1,2-Dichloroethane	20.0	19.74		ug/L		99	68 - 125
1,2-Dichloropropane	20.0	19.24		ug/L		96	72 - 128
1,4-Dichlorobenzene	20.0	18.75		ug/L		94	72 - 120
2-Butanone (MEK)	40.0	38.99		ug/L		97	60 - 134
2-Hexanone	40.0	46.36		ug/L		116	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	44.25		ug/L		111	62 - 136
Acetone	40.0	42.95		ug/L		107	59 - 136
Acrylonitrile	200	206.6	E	ug/L		103	50 - 150
Benzene	20.0	19.40		ug/L		97	71 - 125
Bromochloromethane	20.0	19.04		ug/L		95	69 - 131
Bromodichloromethane	20.0	17.49		ug/L		87	70 - 122
Bromoform	20.0	16.07		ug/L		80	62 - 122
Carbon disulfide	20.0	20.13		ug/L		101	58 - 137
Carbon tetrachloride	20.0	17.20		ug/L		86	63 - 136
Chlorobenzene	20.0	18.50		ug/L		93	74 - 120
Chlorodibromomethane	20.0	16.72		ug/L		84	69 - 121
Chloroform	20.0	20.10		ug/L		100	72 - 122
cis-1,2-Dichloroethene	20.0	19.22		ug/L		96	72 - 123
cis-1,3-Dichloropropene	20.0	17.62		ug/L		88	72 - 123
Dibromomethane	20.0	19.15		ug/L		96	72 - 122
Ethylbenzene	20.0	19.14		ug/L		96	75 - 120
Iodomethane	20.0	10.61		ug/L		53	18 - 150
Methylene chloride	20.0	19.57		ug/L		98	72 - 128
Styrene	20.0	18.74		ug/L		94	74 - 122
Tetrachloroethene	20.0	17.72		ug/L		89	70 - 128
Toluene	20.0	19.56		ug/L		98	74 - 120
trans-1,2-Dichloroethene	20.0	19.09		ug/L		95	67 - 127
trans-1,3-Dichloropropene	20.0	16.90		ug/L		84	67 - 123
trans-1,4-Dichloro-2-butene	20.0	19.61		ug/L		98	50 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-462645/7

Matrix: Water

Analysis Batch: 462645

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	18.10		ug/L		90	70 - 128
Vinyl acetate	40.0	32.39		ug/L		81	50 - 150
Xylenes, Total	40.0	37.41		ug/L		94	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	95		76 - 130
Toluene-d8 (Surr)	107		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120

Lab Sample ID: LCS 310-462645/8

Matrix: Water

Analysis Batch: 462645

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	14.08		ug/L		70	33 - 138
Chloroethane	20.0	19.03		ug/L		95	59 - 139
Chloromethane	20.0	20.66		ug/L		103	52 - 146
Trichlorofluoromethane	20.0	18.84		ug/L		94	55 - 150
Vinyl chloride	20.0	19.45		ug/L		97	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		76 - 130
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: 310-312334-3 MS

Matrix: Water

Analysis Batch: 462645

Client Sample ID: MW-4

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	18.54		ug/L		74	55 - 121
1,1,1,1-Trichloroethane	<1.00		25.0	19.45		ug/L		78	53 - 130
1,1,2,2-Tetrachloroethane	<1.00		25.0	24.24		ug/L		97	55 - 123
1,1,2-Trichloroethane	<1.00		25.0	22.75		ug/L		91	60 - 121
1,1-Dichloroethane	<1.00		25.0	23.73		ug/L		95	53 - 127
1,1-Dichloroethene	<2.00		25.0	22.33		ug/L		89	51 - 134
1,2,3-Trichloropropane	<1.00		25.0	22.74		ug/L		91	56 - 122
1,2-Dibromo-3-chloropropane	<5.00		25.0	20.80		ug/L		83	44 - 138
1,2-Dibromoethane (EDB)	<1.00		25.0	21.46		ug/L		86	60 - 122
1,2-Dichlorobenzene	<1.00		25.0	22.56		ug/L		90	60 - 120
1,2-Dichloroethane	<1.00		25.0	23.35		ug/L		93	48 - 128
1,2-Dichloropropane	<1.00		25.0	22.96		ug/L		92	59 - 128
1,4-Dichlorobenzene	<1.00		25.0	22.45		ug/L		90	58 - 120
2-Butanone (MEK)	<10.0		50.0	47.88		ug/L		96	46 - 134
2-Hexanone	<10.0		50.0	54.22		ug/L		108	46 - 141
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	52.48		ug/L		105	49 - 138
Acetone	<10.0		50.0	57.19		ug/L		114	39 - 141
Acrylonitrile	<5.00		250	255.1	E	ug/L		102	41 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: 310-312334-3 MS

Matrix: Water

Analysis Batch: 462645

Client Sample ID: MW-4

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	22.21		ug/L		89	48 - 125
Bromochloromethane	<5.00		25.0	22.83		ug/L		91	55 - 131
Bromodichloromethane	<1.00		25.0	20.78		ug/L		83	53 - 122
Bromoform	<5.00		25.0	18.43		ug/L		74	47 - 122
Carbon disulfide	<1.00		25.0	24.39		ug/L		98	45 - 137
Carbon tetrachloride	<2.00		25.0	19.29		ug/L		77	45 - 136
Chlorobenzene	<1.00		25.0	21.60		ug/L		86	59 - 120
Chlorodibromomethane	<5.00		25.0	18.89		ug/L		76	53 - 121
Chloroform	<3.00		25.0	23.08		ug/L		92	52 - 122
cis-1,2-Dichloroethene	<1.00		25.0	22.15		ug/L		89	51 - 123
cis-1,3-Dichloropropene	<5.00		25.0	19.86		ug/L		79	55 - 123
Dibromomethane	<1.00		25.0	22.85		ug/L		91	57 - 122
Ethylbenzene	<1.00		25.0	21.76		ug/L		87	53 - 120
Iodomethane	<10.0		25.0	15.84		ug/L		63	18 - 150
Methylene chloride	<5.00		25.0	24.58		ug/L		98	59 - 128
Styrene	<1.00		25.0	22.04		ug/L		88	50 - 125
Tetrachloroethene	<1.00		25.0	19.60		ug/L		78	51 - 128
Toluene	<1.00		25.0	21.82		ug/L		87	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	21.71		ug/L		87	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	18.51		ug/L		74	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	20.73		ug/L		83	28 - 150
Trichloroethene	<1.00		25.0	20.74		ug/L		83	50 - 128
Vinyl acetate	<10.0		50.0	31.75		ug/L		64	31 - 150
Xylenes, Total	<3.00		50.0	43.10		ug/L		86	50 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	97		76 - 130
Toluene-d8 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120

Lab Sample ID: 310-312334-3 MSD

Matrix: Water

Analysis Batch: 462645

Client Sample ID: MW-4

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	18.98		ug/L		76	55 - 121	2	20
1,1,1-Trichloroethane	<1.00		25.0	19.19		ug/L		77	53 - 130	1	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	24.75		ug/L		99	55 - 123	2	20
1,1,2-Trichloroethane	<1.00		25.0	22.63		ug/L		91	60 - 121	1	20
1,1-Dichloroethane	<1.00		25.0	23.28		ug/L		93	53 - 127	2	20
1,1-Dichloroethene	<2.00		25.0	21.38		ug/L		86	51 - 134	4	20
1,2,3-Trichloropropane	<1.00		25.0	22.80		ug/L		91	56 - 122	0	21
1,2-Dibromo-3-chloropropane	<5.00		25.0	21.35		ug/L		85	44 - 138	3	24
1,2-Dibromoethane (EDB)	<1.00		25.0	21.85		ug/L		87	60 - 122	2	20
1,2-Dichlorobenzene	<1.00		25.0	23.37		ug/L		93	60 - 120	4	20
1,2-Dichloroethane	<1.00		25.0	23.11		ug/L		92	48 - 128	1	20
1,2-Dichloropropane	<1.00		25.0	22.90		ug/L		92	59 - 128	0	20
1,4-Dichlorobenzene	<1.00		25.0	22.44		ug/L		90	58 - 120	0	20

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: 310-312334-3 MSD

Matrix: Water

Analysis Batch: 462645

Client Sample ID: MW-4

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	50.26		ug/L		101	46 - 134	5	23
2-Hexanone	<10.0		50.0	54.33		ug/L		109	46 - 141	0	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	53.48		ug/L		107	49 - 138	2	20
Acetone	<10.0		50.0	55.28		ug/L		111	39 - 141	3	23
Acrylonitrile	<5.00		250	249.0	E	ug/L		100	41 - 150	2	20
Benzene	<0.500		25.0	21.84		ug/L		87	48 - 125	2	20
Bromochloromethane	<5.00		25.0	21.34		ug/L		85	55 - 131	7	21
Bromodichloromethane	<1.00		25.0	20.56		ug/L		82	53 - 122	1	20
Bromoform	<5.00		25.0	18.90		ug/L		76	47 - 122	2	20
Carbon disulfide	<1.00		25.0	21.03		ug/L		84	45 - 137	15	24
Carbon tetrachloride	<2.00		25.0	19.66		ug/L		79	45 - 136	2	20
Chlorobenzene	<1.00		25.0	21.16		ug/L		85	59 - 120	2	20
Chlorodibromomethane	<5.00		25.0	19.55		ug/L		78	53 - 121	3	20
Chloroform	<3.00		25.0	22.01		ug/L		88	52 - 122	5	20
cis-1,2-Dichloroethene	<1.00		25.0	22.17		ug/L		89	51 - 123	0	20
cis-1,3-Dichloropropene	<5.00		25.0	20.31		ug/L		81	55 - 123	2	20
Dibromomethane	<1.00		25.0	22.58		ug/L		90	57 - 122	1	20
Ethylbenzene	<1.00		25.0	21.85		ug/L		87	53 - 120	0	20
Iodomethane	<10.0		25.0	18.46		ug/L		74	18 - 150	15	32
Methylene chloride	<5.00		25.0	22.89		ug/L		92	59 - 128	7	20
Styrene	<1.00		25.0	21.63		ug/L		87	50 - 125	2	20
Tetrachloroethene	<1.00		25.0	19.79		ug/L		79	51 - 128	1	20
Toluene	<1.00		25.0	21.86		ug/L		87	52 - 120	0	20
trans-1,2-Dichloroethene	<1.00		25.0	21.37		ug/L		85	53 - 127	2	20
trans-1,3-Dichloropropene	<5.00		25.0	19.31		ug/L		77	50 - 123	4	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	21.61		ug/L		86	28 - 150	4	24
Trichloroethene	<1.00		25.0	20.59		ug/L		82	50 - 128	1	20
Vinyl acetate	<10.0		50.0	33.00		ug/L		66	31 - 150	4	25
Xylenes, Total	<3.00		50.0	43.03		ug/L		86	50 - 122	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	95		76 - 130
Toluene-d8 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: MB 310-462648/7

Matrix: Water

Analysis Batch: 462648

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			08/06/25 03:02	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/06/25 03:02	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/06/25 03:02	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/06/25 03:02	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/06/25 03:02	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/06/25 03:02	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/06/25 03:02	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			08/06/25 03:02	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-462648/7

Matrix: Water

Analysis Batch: 462648

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			08/06/25 03:02	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/06/25 03:02	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/06/25 03:02	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/06/25 03:02	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/06/25 03:02	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/06/25 03:02	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/06/25 03:02	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/06/25 03:02	1
Acetone	<10.0		10.0	3.10	ug/L			08/06/25 03:02	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			08/06/25 03:02	1
Benzene	<0.500		0.500	0.220	ug/L			08/06/25 03:02	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/06/25 03:02	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/06/25 03:02	1
Bromoform	<5.00		5.00	0.780	ug/L			08/06/25 03:02	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/06/25 03:02	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/06/25 03:02	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/06/25 03:02	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/06/25 03:02	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/06/25 03:02	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/06/25 03:02	1
Chloroform	<3.00		3.00	1.30	ug/L			08/06/25 03:02	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/06/25 03:02	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/06/25 03:02	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/06/25 03:02	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/06/25 03:02	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/06/25 03:02	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/06/25 03:02	1
Methylene chloride	<5.00		5.00	1.70	ug/L			08/06/25 03:02	1
Styrene	<1.00		1.00	0.370	ug/L			08/06/25 03:02	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/06/25 03:02	1
Toluene	<1.00		1.00	0.430	ug/L			08/06/25 03:02	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/06/25 03:02	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/06/25 03:02	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/06/25 03:02	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/06/25 03:02	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/06/25 03:02	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/06/25 03:02	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/06/25 03:02	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/06/25 03:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		76 - 130		08/06/25 03:02	1
Toluene-d8 (Surr)	101		80 - 120		08/06/25 03:02	1
4-Bromofluorobenzene (Surr)	98		80 - 120		08/06/25 03:02	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-462648/8

Matrix: Water

Analysis Batch: 462648

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	15.58		ug/L		78	70 - 121
1,1,1-Trichloroethane	20.0	17.20		ug/L		86	69 - 130
1,1,2,2-Tetrachloroethane	20.0	20.77		ug/L		104	70 - 122
1,1,2-Trichloroethane	20.0	18.99		ug/L		95	75 - 121
1,1-Dichloroethane	20.0	20.60		ug/L		103	69 - 127
1,1-Dichloroethene	20.0	19.15		ug/L		96	64 - 134
1,2,3-Trichloropropane	20.0	19.61		ug/L		98	70 - 122
1,2-Dibromo-3-chloropropane	20.0	18.43		ug/L		92	62 - 132
1,2-Dibromoethane (EDB)	20.0	18.39		ug/L		92	74 - 122
1,2-Dichlorobenzene	20.0	18.55		ug/L		93	74 - 120
1,2-Dichloroethane	20.0	19.53		ug/L		98	68 - 125
1,2-Dichloropropane	20.0	19.59		ug/L		98	72 - 128
1,4-Dichlorobenzene	20.0	18.22		ug/L		91	72 - 120
2-Butanone (MEK)	40.0	40.24		ug/L		101	60 - 134
2-Hexanone	40.0	46.88		ug/L		117	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	46.21		ug/L		116	62 - 136
Acetone	40.0	45.68		ug/L		114	59 - 136
Acrylonitrile	200	217.9	E	ug/L		109	50 - 150
Benzene	20.0	19.33		ug/L		97	71 - 125
Bromochloromethane	20.0	18.77		ug/L		94	69 - 131
Bromodichloromethane	20.0	17.62		ug/L		88	70 - 122
Bromoform	20.0	16.31		ug/L		82	62 - 122
Carbon disulfide	20.0	19.49		ug/L		97	58 - 137
Carbon tetrachloride	20.0	16.94		ug/L		85	63 - 136
Chlorobenzene	20.0	17.94		ug/L		90	74 - 120
Chlorodibromomethane	20.0	16.31		ug/L		82	69 - 121
Chloroform	20.0	19.71		ug/L		99	72 - 122
cis-1,2-Dichloroethene	20.0	18.87		ug/L		94	72 - 123
cis-1,3-Dichloropropene	20.0	16.77		ug/L		84	72 - 123
Dibromomethane	20.0	19.31		ug/L		97	72 - 122
Ethylbenzene	20.0	18.63		ug/L		93	75 - 120
Iodomethane	20.0	11.10		ug/L		56	18 - 150
Methylene chloride	20.0	20.29		ug/L		101	72 - 128
Styrene	20.0	18.01		ug/L		90	74 - 122
Tetrachloroethene	20.0	16.54		ug/L		83	70 - 128
Toluene	20.0	19.04		ug/L		95	74 - 120
trans-1,2-Dichloroethene	20.0	19.14		ug/L		96	67 - 127
trans-1,3-Dichloropropene	20.0	15.83		ug/L		79	67 - 123
trans-1,4-Dichloro-2-butene	20.0	18.30		ug/L		91	50 - 150
Trichloroethene	20.0	18.16		ug/L		91	70 - 128
Vinyl acetate	40.0	32.56		ug/L		81	50 - 150
Xylenes, Total	40.0	36.87		ug/L		92	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	94		76 - 130
Toluene-d8 (Surr)	107		80 - 120
4-Bromofluorobenzene (Surr)	96		80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-462648/9

Matrix: Water

Analysis Batch: 462648

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	15.12		ug/L		76	33 - 138
Chloroethane	20.0	21.46		ug/L		107	59 - 139
Chloromethane	20.0	22.58		ug/L		113	52 - 146
Trichlorofluoromethane	20.0	20.82		ug/L		104	55 - 150
Vinyl chloride	20.0	20.83		ug/L		104	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	104		76 - 130
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LB 310-462156/1-E

Matrix: Water

Analysis Batch: 462639

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 462638

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	<0.0946		0.0946	0.0265	ug/L		08/05/25 09:13	08/05/25 12:29	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	62		10 - 150	08/05/25 09:13	08/05/25 12:29	1
Tetrachloro-m-xylene (Surr)	91		17 - 150	08/05/25 09:13	08/05/25 12:29	1

Lab Sample ID: MB 310-462638/1-A

Matrix: Water

Analysis Batch: 462639

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 462638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	<0.0989		0.0989	0.0277	ug/L		08/05/25 09:13	08/05/25 12:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	44		10 - 150	08/05/25 09:13	08/05/25 12:03	1
Tetrachloro-m-xylene (Surr)	72		17 - 150	08/05/25 09:13	08/05/25 12:03	1

Lab Sample ID: LCS 310-462638/2-A

Matrix: Water

Analysis Batch: 462639

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 462638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endosulfan I	2.77	1.341		ug/L		48	26 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	44		10 - 150
Tetrachloro-m-xylene (Surr)	61		17 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-828429/1-A
Matrix: Water
Analysis Batch: 828588

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 828429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<1.00		1.00	0.105	ug/L		08/04/25 07:24	08/04/25 17:14	1

Lab Sample ID: LCS 500-828429/2-A
Matrix: Water
Analysis Batch: 828588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 828429

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silvex (2,4,5-TP)	2.50	2.797		ug/L		112	32 - 115

Lab Sample ID: LCSD 500-828429/3-A
Matrix: Water
Analysis Batch: 828588

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 828429

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	2.50	3.030	*+	ug/L		121	32 - 115	8	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-462418/3
Matrix: Water
Analysis Batch: 462418

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00	0.420	mg/L			07/31/25 16:57	1

Lab Sample ID: LCS 310-462418/4
Matrix: Water
Analysis Batch: 462418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	9.100		mg/L		91	90 - 110

Lab Sample ID: 310-312334-3 MS
Matrix: Water
Analysis Batch: 462418

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	45.9		5.00	50.32	4	mg/L		88	80 - 120

Lab Sample ID: 310-312334-3 MSD
Matrix: Water
Analysis Batch: 462418

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	45.9		5.00	50.08	4	mg/L		83	80 - 120	0	15

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 310-463280/1-A
Matrix: Water
Analysis Batch: 463432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L		08/12/25 09:00	08/12/25 15:39	1
Manganese	<0.0100		0.0100	0.00410	mg/L		08/12/25 09:00	08/12/25 15:39	1

Lab Sample ID: LCS 310-463280/2-A
Matrix: Water
Analysis Batch: 463432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	2.00	1.742		mg/L		87	80 - 120
Manganese	1.00	0.8705		mg/L		87	80 - 120

Lab Sample ID: MB 310-463282/1-A
Matrix: Water
Analysis Batch: 463714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L		08/12/25 09:00	08/14/25 15:19	1
Manganese	<0.0100		0.0100	0.00410	mg/L		08/12/25 09:00	08/14/25 15:19	1

Lab Sample ID: LCS 310-463282/2-A
Matrix: Water
Analysis Batch: 463714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	2.00	1.865		mg/L		93	80 - 120
Manganese	1.00	0.9502		mg/L		95	80 - 120

Lab Sample ID: 310-312334-3 MS
Matrix: Water
Analysis Batch: 463714

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 463282

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	18.4		2.00	20.61	4	mg/L		109	75 - 125
Manganese	1.94		1.00	2.936		mg/L		100	75 - 125

Lab Sample ID: 310-312334-3 MSD
Matrix: Water
Analysis Batch: 463714

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 463282

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	18.4		2.00	20.15	4	mg/L		86	75 - 125	2	20
Manganese	1.94		1.00	2.867		mg/L		93	75 - 125	2	20

Lab Sample ID: MB 310-463419/1-A
Matrix: Water
Analysis Batch: 463709

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0790	mg/L		08/13/25 09:30	08/14/25 15:00	1
Manganese	<0.0100		0.0100	0.00410	mg/L		08/13/25 09:30	08/14/25 15:00	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 310-463419/2-A
Matrix: Water
Analysis Batch: 463709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	2.00	1.855		mg/L		93	80 - 120
Manganese	1.00	0.9529		mg/L		95	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-462421/1-A
Matrix: Water
Analysis Batch: 463028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/04/25 09:30	08/07/25 14:14	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/04/25 09:30	08/07/25 14:14	1
Barium	<0.00200		0.00200	0.000660	mg/L		08/04/25 09:30	08/07/25 14:14	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/04/25 09:30	08/07/25 14:14	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/04/25 09:30	08/07/25 14:14	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/04/25 09:30	08/07/25 14:14	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/04/25 09:30	08/07/25 14:14	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/04/25 09:30	08/07/25 14:14	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/04/25 09:30	08/07/25 14:14	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/04/25 09:30	08/07/25 14:14	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/04/25 09:30	08/07/25 14:14	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/04/25 09:30	08/07/25 14:14	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/04/25 09:30	08/07/25 14:14	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/04/25 09:30	08/07/25 14:14	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/04/25 09:30	08/07/25 14:14	1

Lab Sample ID: LCS 310-462421/2-A
Matrix: Water
Analysis Batch: 463028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2006		mg/L		100	80 - 120
Arsenic	0.200	0.2049		mg/L		102	80 - 120
Barium	0.100	0.09750		mg/L		98	80 - 120
Beryllium	0.100	0.1019		mg/L		102	80 - 120
Cadmium	0.100	0.09942		mg/L		99	80 - 120
Chromium	0.100	0.1023		mg/L		102	80 - 120
Cobalt	0.100	0.1023		mg/L		102	80 - 120
Copper	0.200	0.1994		mg/L		100	80 - 120
Lead	0.200	0.2048		mg/L		102	80 - 120
Nickel	0.200	0.2104		mg/L		105	80 - 120
Selenium	0.400	0.3935		mg/L		98	80 - 120
Silver	0.100	0.1179		mg/L		118	80 - 120
Thallium	0.100	0.1066		mg/L		107	80 - 120
Vanadium	0.100	0.1001		mg/L		100	80 - 120
Zinc	0.200	0.1962		mg/L		98	80 - 120

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: 310-312334-6 DU
Matrix: Water
Analysis Batch: 463028

Client Sample ID: MW-12R
Prep Type: Total/NA
Prep Batch: 462421

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	0.0215		0.02158		mg/L		0.5	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.0128		0.01291		mg/L		1	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Nickel	0.0644		0.06525		mg/L		1	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Lab Sample ID: 310-312334-6 DU
Matrix: Water
Analysis Batch: 463188

Client Sample ID: MW-12R
Prep Type: Total/NA
Prep Batch: 462421

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Barium	3.36		3.447		mg/L		2	20

Lab Sample ID: MB 310-462575/1-A
Matrix: Water
Analysis Batch: 462899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462575

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200	0.00100	mg/L		08/05/25 09:00	08/06/25 14:31	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/05/25 09:00	08/06/25 14:31	1
Barium	<0.00200		0.00200	0.000660	mg/L		08/05/25 09:00	08/06/25 14:31	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/05/25 09:00	08/06/25 14:31	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/05/25 09:00	08/06/25 14:31	1
Chromium	<0.00500		0.00500	0.00180	mg/L		08/05/25 09:00	08/06/25 14:31	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/05/25 09:00	08/06/25 14:31	1
Copper	<0.00500		0.00500	0.00320	mg/L		08/05/25 09:00	08/06/25 14:31	1
Lead	<0.000500		0.000500	0.000330	mg/L		08/05/25 09:00	08/06/25 14:31	1
Nickel	<0.00500		0.00500	0.00230	mg/L		08/05/25 09:00	08/06/25 14:31	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/05/25 09:00	08/06/25 14:31	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/05/25 09:00	08/06/25 14:31	1
Thallium	<0.00100		0.00100	0.000570	mg/L		08/05/25 09:00	08/06/25 14:31	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		08/05/25 09:00	08/06/25 14:31	1
Zinc	<0.0200		0.0200	0.0130	mg/L		08/05/25 09:00	08/06/25 14:31	1

Lab Sample ID: LCS 310-462575/2-A
Matrix: Water
Analysis Batch: 462899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2006		mg/L		100	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: LCS 310-462575/2-A
Matrix: Water
Analysis Batch: 462899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1887		mg/L		94	80 - 120
Barium	0.100	0.09771		mg/L		98	80 - 120
Beryllium	0.100	0.09970		mg/L		100	80 - 120
Cadmium	0.100	0.09744		mg/L		97	80 - 120
Chromium	0.100	0.1045		mg/L		104	80 - 120
Cobalt	0.100	0.1046		mg/L		105	80 - 120
Copper	0.200	0.1920		mg/L		96	80 - 120
Lead	0.200	0.2015		mg/L		101	80 - 120
Nickel	0.200	0.2143		mg/L		107	80 - 120
Selenium	0.400	0.3858		mg/L		96	80 - 120
Silver	0.100	0.1080		mg/L		108	80 - 120
Thallium	0.100	0.1031		mg/L		103	80 - 120
Vanadium	0.100	0.1019		mg/L		102	80 - 120
Zinc	0.200	0.1902		mg/L		95	80 - 120

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-828622/1-A
Matrix: Water
Analysis Batch: 828625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 828622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.00		1.00	0.231	mg/L		08/04/25 18:00	08/05/25 02:41	1

Lab Sample ID: LCS 500-828622/2-A
Matrix: Water
Analysis Batch: 828625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 828622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	3.51	3.465		mg/L		99	80 - 120

Lab Sample ID: 310-312334-12 MS
Matrix: Water
Analysis Batch: 828625

Client Sample ID: MW-26
Prep Type: Total/NA
Prep Batch: 828622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.710	J	8.79	11.14		mg/L		119	75 - 125

Lab Sample ID: 310-312334-12 MSD
Matrix: Water
Analysis Batch: 828625

Client Sample ID: MW-26
Prep Type: Total/NA
Prep Batch: 828622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.710	J	8.79	10.63		mg/L		113	75 - 125	5	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

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

Lab Sample ID: MB 310-462422/1
Matrix: Water
Analysis Batch: 462422

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			08/01/25 16:43	1

Lab Sample ID: LCS 310-462422/2
Matrix: Water
Analysis Batch: 462422

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	108.0		mg/L		108	82 - 117

Lab Sample ID: 310-312334-3 DU
Matrix: Water
Analysis Batch: 462422

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	58.0		58.00		mg/L		0	35

Lab Sample ID: MB 310-462555/1
Matrix: Water
Analysis Batch: 462555

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			08/04/25 14:35	1

Lab Sample ID: LCS 310-462555/2
Matrix: Water
Analysis Batch: 462555

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	100.0		mg/L		100	82 - 117

Lab Sample ID: 310-312334-6 DU
Matrix: Water
Analysis Batch: 462555

Client Sample ID: MW-12R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	128		122.0		mg/L		5	35

Lab Sample ID: MB 310-462562/1
Matrix: Water
Analysis Batch: 462562

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			08/04/25 15:10	1

Lab Sample ID: LCS 310-462562/2
Matrix: Water
Analysis Batch: 462562

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	105.0		mg/L		105	82 - 117

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

GC/MS VOA

Analysis Batch: 462645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-3	MW-4	Total/NA	Water	8260D	
310-312334-4	MW-9	Total/NA	Water	8260D	
310-312334-5	MW-11	Total/NA	Water	8260D	
310-312334-6	MW-12R	Total/NA	Water	8260D	
310-312334-7	MW-13	Total/NA	Water	8260D	
310-312334-9	MW-22	Total/NA	Water	8260D	
310-312334-10	MW-23	Total/NA	Water	8260D	
310-312334-12	MW-26	Total/NA	Water	8260D	
310-312334-13	MW-36	Total/NA	Water	8260D	
310-312334-14	MW-37	Total/NA	Water	8260D	
310-312334-15	MW-38	Total/NA	Water	8260D	
MB 310-462645/6	Method Blank	Total/NA	Water	8260D	
LCS 310-462645/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-462645/8	Lab Control Sample	Total/NA	Water	8260D	
310-312334-3 MS	MW-4	Total/NA	Water	8260D	
310-312334-3 MSD	MW-4	Total/NA	Water	8260D	

Analysis Batch: 462648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-16	MW-39	Total/NA	Water	8260D	
310-312334-19	Trip Blank 1	Total/NA	Water	8260D	
310-312334-20	Trip Blank 2	Total/NA	Water	8260D	
310-312334-21	Trip Blank 3	Total/NA	Water	8260D	
MB 310-462648/7	Method Blank	Total/NA	Water	8260D	
LCS 310-462648/8	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-462648/9	Lab Control Sample	Total/NA	Water	8260D	

GC Semi VOA

Leach Batch: 462156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-462156/1-E	Method Blank	Total/NA	Water	1311	

Prep Batch: 462638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	3511	
310-312334-16	MW-39	Total/NA	Water	3511	
LB 310-462156/1-E	Method Blank	Total/NA	Water	3511	462156
MB 310-462638/1-A	Method Blank	Total/NA	Water	3511	
LCS 310-462638/2-A	Lab Control Sample	Total/NA	Water	3511	

Analysis Batch: 462639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-462156/1-E	Method Blank	Total/NA	Water	8081B	462638
MB 310-462638/1-A	Method Blank	Total/NA	Water	8081B	462638
LCS 310-462638/2-A	Lab Control Sample	Total/NA	Water	8081B	462638

Analysis Batch: 462714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	8081B	462638
310-312334-16	MW-39	Total/NA	Water	8081B	462638

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

GC Semi VOA

Prep Batch: 828429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-6	MW-12R	Total/NA	Water	8151A	
MB 500-828429/1-A	Method Blank	Total/NA	Water	8151A	
LCS 500-828429/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 500-828429/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 828588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-6	MW-12R	Total/NA	Water	8151A	828429
MB 500-828429/1-A	Method Blank	Total/NA	Water	8151A	828429
LCS 500-828429/2-A	Lab Control Sample	Total/NA	Water	8151A	828429
LCSD 500-828429/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	828429

HPLC/IC

Analysis Batch: 462418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-3	MW-4	Total/NA	Water	9056A	
310-312334-6	MW-12R	Total/NA	Water	9056A	
310-312334-10	MW-23	Total/NA	Water	9056A	
310-312334-12	MW-26	Total/NA	Water	9056A	
310-312334-13	MW-36	Total/NA	Water	9056A	
310-312334-14	MW-37	Total/NA	Water	9056A	
310-312334-15	MW-38	Total/NA	Water	9056A	
310-312334-16	MW-39	Total/NA	Water	9056A	
MB 310-462418/3	Method Blank	Total/NA	Water	9056A	
LCS 310-462418/4	Lab Control Sample	Total/NA	Water	9056A	
310-312334-3 MS	MW-4	Total/NA	Water	9056A	
310-312334-3 MSD	MW-4	Total/NA	Water	9056A	

Metals

Prep Batch: 462421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-1	MW-29	Total/NA	Water	3005A	
310-312334-2	MW-2	Total/NA	Water	3005A	
310-312334-3	MW-4	Total/NA	Water	3005A	
310-312334-4	MW-9	Total/NA	Water	3005A	
310-312334-5	MW-11	Total/NA	Water	3005A	
310-312334-6	MW-12R	Total/NA	Water	3005A	
310-312334-7	MW-13	Total/NA	Water	3005A	
310-312334-8	MW-21	Total/NA	Water	3005A	
310-312334-9	MW-22	Total/NA	Water	3005A	
310-312334-10	MW-23	Total/NA	Water	3005A	
310-312334-11	MW-25	Total/NA	Water	3005A	
310-312334-12	MW-26	Total/NA	Water	3005A	
310-312334-13	MW-36	Total/NA	Water	3005A	
310-312334-14	MW-37	Total/NA	Water	3005A	
MB 310-462421/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-462421/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-312334-6 DU	MW-12R	Total/NA	Water	3005A	

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Metals

Prep Batch: 462575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	3005A	
310-312334-16	MW-39	Total/NA	Water	3005A	
310-312334-17	MW-D1	Total/NA	Water	3005A	
310-312334-18	MW-D2	Total/NA	Water	3005A	
MB 310-462575/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-462575/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 462899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	6020B	462575
310-312334-16	MW-39	Total/NA	Water	6020B	462575
310-312334-17	MW-D1	Total/NA	Water	6020B	462575
310-312334-18	MW-D2	Total/NA	Water	6020B	462575
MB 310-462575/1-A	Method Blank	Total/NA	Water	6020B	462575
LCS 310-462575/2-A	Lab Control Sample	Total/NA	Water	6020B	462575

Analysis Batch: 462997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	6020B	462575

Analysis Batch: 463028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-1	MW-29	Total/NA	Water	6020B	462421
310-312334-2	MW-2	Total/NA	Water	6020B	462421
310-312334-3	MW-4	Total/NA	Water	6020B	462421
310-312334-4	MW-9	Total/NA	Water	6020B	462421
310-312334-5	MW-11	Total/NA	Water	6020B	462421
310-312334-6	MW-12R	Total/NA	Water	6020B	462421
310-312334-7	MW-13	Total/NA	Water	6020B	462421
310-312334-8	MW-21	Total/NA	Water	6020B	462421
310-312334-9	MW-22	Total/NA	Water	6020B	462421
310-312334-10	MW-23	Total/NA	Water	6020B	462421
310-312334-11	MW-25	Total/NA	Water	6020B	462421
310-312334-12	MW-26	Total/NA	Water	6020B	462421
310-312334-13	MW-36	Total/NA	Water	6020B	462421
310-312334-14	MW-37	Total/NA	Water	6020B	462421
MB 310-462421/1-A	Method Blank	Total/NA	Water	6020B	462421
LCS 310-462421/2-A	Lab Control Sample	Total/NA	Water	6020B	462421
310-312334-6 DU	MW-12R	Total/NA	Water	6020B	462421

Analysis Batch: 463188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-6	MW-12R	Total/NA	Water	6020B	462421
310-312334-6 DU	MW-12R	Total/NA	Water	6020B	462421

Prep Batch: 463280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-6	MW-12R	Total/NA	Water	3005A	
310-312334-10	MW-23	Total/NA	Water	3005A	
MB 310-463280/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-463280/2-A	Lab Control Sample	Total/NA	Water	3005A	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Metals

Prep Batch: 463282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-3	MW-4	Total/NA	Water	3005A	
310-312334-12	MW-26	Total/NA	Water	3005A	
310-312334-13	MW-36	Total/NA	Water	3005A	
310-312334-14	MW-37	Total/NA	Water	3005A	
310-312334-16	MW-39	Total/NA	Water	3005A	
MB 310-463282/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-463282/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-312334-3 MS	MW-4	Total/NA	Water	3005A	
310-312334-3 MSD	MW-4	Total/NA	Water	3005A	

Prep Batch: 463419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	3005A	
MB 310-463419/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-463419/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 463432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-6	MW-12R	Total/NA	Water	6010D	463280
310-312334-10	MW-23	Total/NA	Water	6010D	463280
MB 310-463280/1-A	Method Blank	Total/NA	Water	6010D	463280
LCS 310-463280/2-A	Lab Control Sample	Total/NA	Water	6010D	463280

Analysis Batch: 463709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-15	MW-38	Total/NA	Water	6010D	463419
MB 310-463419/1-A	Method Blank	Total/NA	Water	6010D	463419
LCS 310-463419/2-A	Lab Control Sample	Total/NA	Water	6010D	463419

Analysis Batch: 463714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-3	MW-4	Total/NA	Water	6010D	463282
310-312334-12	MW-26	Total/NA	Water	6010D	463282
310-312334-13	MW-36	Total/NA	Water	6010D	463282
310-312334-14	MW-37	Total/NA	Water	6010D	463282
310-312334-16	MW-39	Total/NA	Water	6010D	463282
MB 310-463282/1-A	Method Blank	Total/NA	Water	6010D	463282
LCS 310-463282/2-A	Lab Control Sample	Total/NA	Water	6010D	463282
310-312334-3 MS	MW-4	Total/NA	Water	6010D	463282
310-312334-3 MSD	MW-4	Total/NA	Water	6010D	463282

General Chemistry

Analysis Batch: 462422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-1	MW-29	Total/NA	Water	I-3765-85	
310-312334-3	MW-4	Total/NA	Water	I-3765-85	
MB 310-462422/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-462422/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-312334-3 DU	MW-4	Total/NA	Water	I-3765-85	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

General Chemistry

Analysis Batch: 462555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-2	MW-2	Total/NA	Water	I-3765-85	
310-312334-4	MW-9	Total/NA	Water	I-3765-85	
310-312334-5	MW-11	Total/NA	Water	I-3765-85	
310-312334-6	MW-12R	Total/NA	Water	I-3765-85	
310-312334-7	MW-13	Total/NA	Water	I-3765-85	
310-312334-8	MW-21	Total/NA	Water	I-3765-85	
310-312334-9	MW-22	Total/NA	Water	I-3765-85	
310-312334-11	MW-25	Total/NA	Water	I-3765-85	
310-312334-17	MW-D1	Total/NA	Water	I-3765-85	
310-312334-18	MW-D2	Total/NA	Water	I-3765-85	
MB 310-462555/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-462555/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-312334-6 DU	MW-12R	Total/NA	Water	I-3765-85	

Analysis Batch: 462562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-10	MW-23	Total/NA	Water	I-3765-85	
310-312334-12	MW-26	Total/NA	Water	I-3765-85	
310-312334-13	MW-36	Total/NA	Water	I-3765-85	
310-312334-14	MW-37	Total/NA	Water	I-3765-85	
310-312334-15	MW-38	Total/NA	Water	I-3765-85	
310-312334-16	MW-39	Total/NA	Water	I-3765-85	
MB 310-462562/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-462562/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 828622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-12	MW-26	Total/NA	Water	9030B	
MB 500-828622/1-A	Method Blank	Total/NA	Water	9030B	
LCS 500-828622/2-A	Lab Control Sample	Total/NA	Water	9030B	
310-312334-12 MS	MW-26	Total/NA	Water	9030B	
310-312334-12 MSD	MW-26	Total/NA	Water	9030B	

Analysis Batch: 828625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-12	MW-26	Total/NA	Water	9034	828622
MB 500-828622/1-A	Method Blank	Total/NA	Water	9034	828622
LCS 500-828622/2-A	Lab Control Sample	Total/NA	Water	9034	828622
310-312334-12 MS	MW-26	Total/NA	Water	9034	828622
310-312334-12 MSD	MW-26	Total/NA	Water	9034	828622

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-29

Lab Sample ID: 310-312334-1

Date Collected: 07/29/25 12:09

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 14:51
Total/NA	Analysis	I-3765-85		1	462422	E6KR	EET CF	08/01/25 16:43

Client Sample ID: MW-2

Lab Sample ID: 310-312334-2

Date Collected: 07/29/25 13:22

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 14:54
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

Date Collected: 07/30/25 13:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 20:39
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 17:20
Total/NA	Prep	3005A			463282	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463714	ZRI4	EET CF	08/14/25 15:21
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 14:56
Total/NA	Analysis	I-3765-85		1	462422	E6KR	EET CF	08/01/25 16:43

Client Sample ID: MW-9

Lab Sample ID: 310-312334-4

Date Collected: 07/29/25 12:48

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 18:01
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 14:59
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-11

Lab Sample ID: 310-312334-5

Date Collected: 07/29/25 14:32

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 18:24
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:02
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

Date Collected: 07/29/25 16:52

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 18:46
Total/NA	Prep	8151A			828429	CI	EET CHI	08/04/25 07:24
Total/NA	Analysis	8151A		1	828588	W1T	EET CHI	08/04/25 23:17
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 19:09
Total/NA	Prep	3005A			463280	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463432	ZRI4	EET CF	08/12/25 16:18
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:05
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		4	463188	NFT2	EET CF	08/08/25 16:15
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-13

Lab Sample ID: 310-312334-7

Date Collected: 07/29/25 18:24

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 19:09
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:16
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-21

Lab Sample ID: 310-312334-8

Date Collected: 07/29/25 14:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:19
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-22

Lab Sample ID: 310-312334-9

Date Collected: 07/29/25 15:12

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 19:32
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:22
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

Date Collected: 07/30/25 10:38

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 21:02
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 17:57
Total/NA	Prep	3005A			463280	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463432	ZRI4	EET CF	08/12/25 16:19
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:25
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Client Sample ID: MW-25

Lab Sample ID: 310-312334-11

Date Collected: 07/29/25 16:10

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:28
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

Date Collected: 07/30/25 11:58

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 21:24
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:09
Total/NA	Prep	3005A			463282	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463714	ZRI4	EET CF	08/14/25 15:30
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:31
Total/NA	Prep	9030B			828622	CLB	EET CHI	08/04/25 18:12 - 08/04/25 18:18 ¹
Total/NA	Analysis	9034		1	828625	CLB	EET CHI	08/05/25 03:00 - 08/05/25 03:10 ¹
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

Date Collected: 07/30/25 12:28

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 21:47
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:21
Total/NA	Prep	3005A			463282	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463714	ZRI4	EET CF	08/14/25 15:31
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:34
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

Date Collected: 07/30/25 11:07

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 22:09
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:33
Total/NA	Prep	3005A			463282	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463714	ZRI4	EET CF	08/14/25 15:33
Total/NA	Prep	3005A			462421	WK2X	EET CF	08/04/25 09:30
Total/NA	Analysis	6020B		1	463028	NFT2	EET CF	08/07/25 15:36
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Date Collected: 07/30/25 14:11

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462645	WSE8	EET CF	08/05/25 22:32
Total/NA	Prep	3511			462638	BW2O	EET CF	08/05/25 09:21
Total/NA	Analysis	8081B		1	462714	BW2O	EET CF	08/05/25 20:50
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:45
Total/NA	Prep	3005A			463419	WK2X	EET CF	08/13/25 09:30
Total/NA	Analysis	6010D		1	463709	ZRI4	EET CF	08/14/25 15:09
Total/NA	Prep	3005A			462575	RLT9	EET CF	08/05/25 09:00
Total/NA	Analysis	6020B		1	462899	NFT2	EET CF	08/06/25 15:26
Total/NA	Prep	3005A			462575	RLT9	EET CF	08/05/25 09:00
Total/NA	Analysis	6020B		20	462997	NFT2	EET CF	08/07/25 14:08
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Client Sample ID: MW-39

Lab Sample ID: 310-312334-16

Date Collected: 07/30/25 13:31

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462648	WSE8	EET CF	08/06/25 06:48
Total/NA	Prep	3511			462638	BW2O	EET CF	08/05/25 09:21
Total/NA	Analysis	8081B		1	462714	BW2O	EET CF	08/05/25 21:03
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:57
Total/NA	Prep	3005A			463282	WK2X	EET CF	08/12/25 09:00
Total/NA	Analysis	6010D		1	463714	ZRI4	EET CF	08/14/25 15:34
Total/NA	Prep	3005A			462575	RLT9	EET CF	08/05/25 09:00
Total/NA	Analysis	6020B		1	462899	NFT2	EET CF	08/06/25 15:35
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-D1

Lab Sample ID: 310-312334-17

Date Collected: 07/29/25 14:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462575	RLT9	EET CF	08/05/25 09:00
Total/NA	Analysis	6020B		1	462899	NFT2	EET CF	08/06/25 15:38
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: MW-D2

Lab Sample ID: 310-312334-18

Date Collected: 07/29/25 16:10

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			462575	RLT9	EET CF	08/05/25 09:00
Total/NA	Analysis	6020B		1	462899	NFT2	EET CF	08/06/25 15:41
Total/NA	Analysis	I-3765-85		1	462555	E6KR	EET CF	08/04/25 14:35

Client Sample ID: Trip Blank 1

Lab Sample ID: 310-312334-19

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462648	WSE8	EET CF	08/06/25 04:10

Client Sample ID: Trip Blank 2

Lab Sample ID: 310-312334-20

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462648	WSE8	EET CF	08/06/25 04:32

Client Sample ID: Trip Blank 3

Lab Sample ID: 310-312334-21

Date Collected: 07/30/25 00:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462648	WSE8	EET CF	08/06/25 04:55

* 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
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine 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

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-26

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Method Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-1
SDG: Muscatine County Sanitary Landfill

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8081B	Organochlorine Pesticides (GC)	SW846	EET CF
8151A	Herbicides (GC)	SW846	EET CHI
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
3511	Microextraction of Organic Compounds	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	EET CHI
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

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



Environment Testing
America



310-312334 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State:	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received.	DATE <u>7.31.25</u>	TIME <u>11:00</u>	Received By <u>PA</u>
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 # <u>1</u> of <u>3</u>
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? ↓
<u>MU-2, 4, 9, 11, 12R</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID. <u>AA</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>4.8</u>		Corrected Temp (°C): <u>4.8</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State.	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received.	DATE <u>7.31.25</u>	TIME <u>11:00</u>	Received By <u>PH</u>
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 # <u>2</u> of <u>3</u>
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? ↓
<u>MV-13, 21, 22, 23, 25, 26, 29</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE			
Thermometer ID <u>AH</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.1</u>		Corrected Temp (°C): <u>1.1</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>SCS</u>			
City/State:	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received:	DATE <u>7.31.25</u>	TIME <u>11:00</u>	Received By <u>PA</u>
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 # <u>3</u> of <u>3</u>	
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? ↓	
<u>MU-36, 37, 38, 39, 01, 02</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID. <u>AH</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.3</u>		Corrected Temp (°C): <u>2.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Cedar Falls IA 50613-6907
phone 319.277.2401 fax 319.277.2425

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

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: Nathan Ohrt

Client Contact		Nathan Ohrt		Email: nohrt@scsengineers.com		Cell: 319-331-9613		Site Contact: Dave Popp		Date		COC No	
SCS Engineers		West Des Moines, Iowa		Analysis Turnaround Time		☐ CALENDAR DAYS ☐ WORKING DAYS		Lab Contact: Sam Miller		Carrier		1 of 1 COCs	
Project Name: Muscatine 2nd 2025 HMSP		Site: Muscatine County Sanitary Landfill		P O # 27223255.26		Other: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Metals List (see note)		Appendix I VOCs		2,4,6-TP (Silvex)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.		Sample Specific Notes	
MW-29		7-24-25		1209		G		W		N		X	
MW-2		7-24-25		1322		G		W		N		X	
MW-4		7-30-25		1300		G		W		N		X	
MW-9		7-24-25		1248		G		W		N		X	
MW-11		7-24-25		1432		G		W		N		X	
MW-12R		7-24-25		1652		G		W		N		X	
MW-13		7-24-25		1824		G		W		N		X	
MW-21		7-24-25		1400		G		W		N		X	
MW-22		7-24-25		1512		G		W		N		X	
MW-23		7-30-25		1638		G		W		N		X	
MW-25		7-24-25		1610		G		W		N		X	
MW-26		7-30-25		1158		G		W		N		X	
MW-36		7-30-25		1228		G		W		N		X	
MW-37		7-30-25		1107		G		W		N		X	
MW-38		7-30-25		1411		G		W		N		X	
MW-39		7-30-25		1331		G		W		N		X	
MW-D1		7-24-25		1400		G		W		N		X	
MW-D2		7-24-25		1610		G		W		N		X	
Trip Blank										N		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													
Special Instructions/QC Requirements & Comments:													
"Metals List" includes arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, and zinc.													
"Natural Attenuation" includes nitrate, manganese, iron, and sulfate.													
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No		Company		Date/Time		Received by		Cooler Temp (°C)		Obs'd	
Relinquished by: <i>Homer Barth</i>		Company		SCS		7-31-25/1400		Date/Time		Company		Corr'd	
Relinquished by:		Company				Date/Time		Received by		Company		Date/Time	
Relinquished by:		Company				Date/Time		Received in Laboratory by: <i>[Signature]</i>		Company		Date/Time	

Page 79 of 81

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-312334-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 312334

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Calhoun, Conner M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-312334-1

SDG Number: Muscatine County Sanitary Landfill

Login Number: 312334

List Number: 2

Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

List Creation: 08/02/25 12:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4
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.	False	Received extra samples not listed on ICOC.
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

ANALYTICAL REPORT

PREPARED FOR

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

Generated 8/4/2025 8:02:39 AM

JOB DESCRIPTION

Muscatine 2nd 2025 HMSP
Muscatine County Sanitary Landfill

JOB NUMBER

310-312334-2

Eurofins Cedar Falls

Job Notes

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

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

Authorization



Generated
8/4/2025 8:02:39 AM

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



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Case Narrative

Client: SCS Engineers
Project: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2

Job ID: 310-312334-2

Eurofins Cedar Falls

Job Narrative 310-312334-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 7/31/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1°C, 2.3°C and 4.8°C.

Receipt Exceptions

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): Sample #6 for 8151.

HPLC/IC

Method 9056A_ORGFM_48H: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-12R (310-312334-6).

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-312334-3	MW-4	Water	07/30/25 13:00	07/31/25 16:00
310-312334-6	MW-12R	Water	07/29/25 16:52	07/31/25 16:00
310-312334-10	MW-23	Water	07/30/25 10:38	07/31/25 16:00
310-312334-12	MW-26	Water	07/30/25 11:58	07/31/25 16:00
310-312334-13	MW-36	Water	07/30/25 12:28	07/31/25 16:00
310-312334-14	MW-37	Water	07/30/25 11:07	07/31/25 16:00
310-312334-15	MW-38	Water	07/30/25 14:11	07/31/25 16:00
310-312334-16	MW-39	Water	07/30/25 13:31	07/31/25 16:00

Detection Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

No Detections.

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

No Detections.

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

No Detections.

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

No Detections.

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

No Detections.

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

No Detections.

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.185	J	0.200	0.0780	mg/L	1		9056A	Total/NA

Client Sample ID: MW-39

Lab Sample ID: 310-312334-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4
Date Collected: 07/30/25 13:00
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-3
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	F1	0.200	0.0780	mg/L			07/31/25 17:20	1

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

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-12R
Date Collected: 07/29/25 16:52
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-6
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H	0.200	0.0780	mg/L			07/31/25 19:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-23
Date Collected: 07/30/25 10:38
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-10
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 17:57	1

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

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-26
Date Collected: 07/30/25 11:58
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-12
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 18:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-36
Date Collected: 07/30/25 12:28
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-13
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 18:21	1

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

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-37
Date Collected: 07/30/25 11:07
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-14
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 18:33	1

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

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-38
Date Collected: 07/30/25 14:11
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-15
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.185	J	0.200	0.0780	mg/L			07/31/25 18:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39
Date Collected: 07/30/25 13:31
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-16
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 18:57	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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

QC Sample Results

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-462418/3
Matrix: Water
Analysis Batch: 462418

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200		0.200	0.0780	mg/L			07/31/25 16:57	1

Lab Sample ID: LCS 310-462418/4
Matrix: Water
Analysis Batch: 462418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.00	1.969		mg/L		98	90 - 110

Lab Sample ID: 310-312334-3 MS
Matrix: Water
Analysis Batch: 462418

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	<0.200	F1	1.00	0.4229	F1	mg/L		42	80 - 120

Lab Sample ID: 310-312334-3 MSD
Matrix: Water
Analysis Batch: 462418

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	<0.200	F1	1.00	0.4224	F1	mg/L		42	80 - 120	0	15

QC Association Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

HPLC/IC

Analysis Batch: 462418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312334-3	MW-4	Total/NA	Water	9056A	
310-312334-6	MW-12R	Total/NA	Water	9056A	
310-312334-10	MW-23	Total/NA	Water	9056A	
310-312334-12	MW-26	Total/NA	Water	9056A	
310-312334-13	MW-36	Total/NA	Water	9056A	
310-312334-14	MW-37	Total/NA	Water	9056A	
310-312334-15	MW-38	Total/NA	Water	9056A	
310-312334-16	MW-39	Total/NA	Water	9056A	
MB 310-462418/3	Method Blank	Total/NA	Water	9056A	
LCS 310-462418/4	Lab Control Sample	Total/NA	Water	9056A	
310-312334-3 MS	MW-4	Total/NA	Water	9056A	
310-312334-3 MSD	MW-4	Total/NA	Water	9056A	

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-4

Lab Sample ID: 310-312334-3

Date Collected: 07/30/25 13:00

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 17:20

Client Sample ID: MW-12R

Lab Sample ID: 310-312334-6

Date Collected: 07/29/25 16:52

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 19:09

Client Sample ID: MW-23

Lab Sample ID: 310-312334-10

Date Collected: 07/30/25 10:38

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 17:57

Client Sample ID: MW-26

Lab Sample ID: 310-312334-12

Date Collected: 07/30/25 11:58

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:09

Client Sample ID: MW-36

Lab Sample ID: 310-312334-13

Date Collected: 07/30/25 12:28

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:21

Client Sample ID: MW-37

Lab Sample ID: 310-312334-14

Date Collected: 07/30/25 11:07

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:33

Client Sample ID: MW-38

Lab Sample ID: 310-312334-15

Date Collected: 07/30/25 14:11

Matrix: Water

Date Received: 07/31/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:45

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Client Sample ID: MW-39
Date Collected: 07/30/25 13:31
Date Received: 07/31/25 16:00

Lab Sample ID: 310-312334-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	462418	ZRI4	EET CF	07/31/25 18:57

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

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- 13
- 14

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine 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

- 1
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- 13
- 14

Method Summary

Client: SCS Engineers
Project/Site: Muscatine 2nd 2025 HMSP

Job ID: 310-312334-2
SDG: Muscatine County Sanitary Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF

Protocol References:

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

Laboratory References:

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

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Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State:	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received.	DATE <u>7.31.25</u>	TIME <u>11:00</u>	Received By <u>PA</u>
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 # <u>1</u> of <u>3</u>
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? ↓
<u>MU-2, 4, 9, 11, 12R</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID. <u>AA</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>4.8</u>		Corrected Temp (°C): <u>4.8</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State.	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received.	DATE <u>7.31.25</u>	TIME <u>1100</u>	Received By <u>PH</u>
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 # <u>2</u> of <u>3</u>
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? ↓
<u>MV-13, 21, 22, 23, 25, 26, 29</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE			
Thermometer ID <u>AH</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.1</u>		Corrected Temp (°C): <u>1.1</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>SCS</u>			
City/State:	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project
Receipt Information			
Date/Time Received:	DATE <u>7.31.25</u>	TIME <u>11:00</u>	Received By <u>PA</u>
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?		If yes Cooler ID:	
☒ Yes ☐ No			
Multiple Coolers?		If yes: Cooler # <u>3</u> of <u>3</u>	
☒ Yes ☐ No			
Cooler Custody Seals Present?		If yes: Cooler custody seals intact?	
☐ Yes ☒ No		☐ Yes ☐ No	
Sample Custody Seals Present?		If yes: Sample custody seals intact?	
☐ Yes ☒ No		☐ Yes ☐ No	
Trip Blank Present?		If yes: Which VOA samples are in cooler?	
☒ Yes ☐ No		<u>↓</u>	
<u>MU-36, 37, 38, 39, 01, 02</u>			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID. <u>AH</u>		Correction Factor (°C): <u>α</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.3</u>		Corrected Temp (°C): <u>2.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No			
a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Cedar Falls IA 50613-6907
phone 319.277.2401 fax 319.277.2425

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

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: Nathan Ohrt

Client Contact		Nathan Ohrt		Email: nohrt@scsengineers.com		Cell: 319-331-9613		Site Contact: Dave Popp		Date		COC No	
SCS Engineers		West Des Moines, Iowa		Analysis Turnaround Time		☐ CALENDAR DAYS ☐ WORKING DAYS		Lab Contact: Sam Miller		Carrier		1 of 1 COCs	
Project Name: Muscatine 2nd 2025 HMSP		Site: Muscatine County Sanitary Landfill		P O # 27223255.26		Other: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Metals List (see note)		Appendix I VOCs		2,4,6-TP (Silvex)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.		Sample Specific Notes	
MW-29	7-24-25	1209	G	W									
MW-2	7-24-25	1322	G	W									
MW-4	7-30-25	1300	G	W									
MW-9	7-24-25	1248	G	W									
MW-11	7-24-25	1432	G	W									
MW-12R	7-24-25	1652	G	W									
MW-13	7-24-25	1824	G	W									
MW-21	7-24-25	1400	G	W									
MW-22	7-24-25	1512	G	W									
MW-23	7-30-25	1638	G	W									
MW-25	7-24-25	1610	G	W									
MW-26	7-30-25	1158	G	W									
MW-36	7-30-25	1228	G	W									
MW-37	7-30-25	1107	G	W									
MW-38	7-30-25	1411	G	W									
MW-39	7-30-25	1331	G	W									
MW-D1	7-24-25	1400	G	W									
MW-D2	7-24-25	1610	G	W									
Trip Blank													
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													
Special Instructions/QC Requirements & Comments:													
"Metals List" includes arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, and zinc.													
"Natural Attenuation" includes nitrate, manganese, iron, and sulfate.													
Custody Seal Intact: ☐ Yes ☐ No		Custody Seal No		Company		Date/Time		Received by		Cooler Temp (°C)		Obs'd	
Relinquished by: <i>Homer Barth</i>		Company		SCS		7-31-25/1400		Received by		Company		Date/Time	
Relinquished by:		Company						Received by		Company		Date/Time	
Relinquished by:		Company						Received in Laboratory by: <i>[Signature]</i>		Company		Date/Time 7-31-25 1600	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-312334-2

SDG Number: Muscatine County Sanitary Landfill

Login Number: 312334

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Calhoun, Conner M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Appendix B-2
Data Validation Documentation

Completed by: Nathan Ohrt
 Date of Sampling: 3/26-27/2025
 Lab Report Date: 4/7/2025
 Site Name: Muscatine County Sanitary Landfill
 Project Type: 1st 2025 Bracketing
 Lab Report Number: 310-302991

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody
 Temperature
 Preservation
 Condition
 Case Narrative
 Holding Times

X			
X			
X			
X			
X			
X			

Analytical Sensitivity and Blanks

Method Blank Detections
 Trip Blank Detections

X			No detections.
X			No detections.

Accuracy

ICV/CCV
 LCS/LCSD
 MS/MSD
 Surrogates (organics only)

X			
X			
X			
X			

Precision

QA/QC Sample RPDs
 Field Duplicates

X			
		X	

Completed by: Nathan Ohrt
Date of Sampling: 3/25-27/2025
Lab Report Date: 4/14/2025
Site Name: Muscatine County Sanitary Landfill
Project Type: 1st 2025 HMSP
Lab Report Number: 310-302994

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody	X		
Temperature		X	The samples were received outside the required temperature criteria.
Preservation	X		
Condition		X	MW-10A, MW-11, and MW-22 were diluted due to the nature of the sample matrix.
Case Narrative		X	Reanalysis of multiple samples was performed outside of holding times due to laboratory control sample (LCS) failures. Elevated reporting limits were provided for multiple samples due to insufficient sample volume.
Holding Times		X	

Analytical Sensitivity and Blanks

Method Blank Detections	X		No detections.
Trip Blank Detections	X		No detections.

Accuracy

ICV/CCV		X	Continuing calibration verifications (CCVs) recovered above upper control limits for multiple parameters; the associated samples were non-detect for the affected analytes, or a CCV standard below the reporting limit for the affected analyte was found to be acceptable, so the data was reported.
LCS/LCSD		X	Laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs) recovered outside control limits for Kepone; the analyte was biased high in the LCS and not detected in the associated samples, so that data was reported. A LCS/LCSD recovered outside control limits for 1,4-phenylenediamine; the analyte was identified as a poor performing analyte when analyzed using this method, so re-analysis was not performed. The LCS/LCSD for multiple batch recovered outside control limits for PCB-1016 and PCB-1260; these analytes were biased high in the LCS and were not detected in the associated samples so the data was reported.
MS/MSD		X	Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD); the laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data.
Surrogates (organics only)	X		Surrogate recovery was outside the upper control limit for multiple analytes; the sample did not contain the target analytes, so re-analysis was not performed. The surrogate recovery for the blank and LCS associated with multiple batches was outside the upper control limits.

Precision

QA/QC Sample RPDs		X	The relative percent differences of the LCS/LCSD for multiple batches recovered outside control limits for multiple analytes.
Field Duplicates	X		Sample MW-20 and sample MW-D1 had <50% RPD for analyzed parameters. Sample MW-24 and sample MW-D2 had <50% RPD for analyzed parameters.

Completed by: Nathan Ohrt
Date of Sampling: 7/29-30/2025
Lab Report Date: 8/14/2025
Site Name: Muscatine County Sanitary Landfill
Project Type: 2nd 2025 HMSP & 2025 Natural Attenuation
Lab Report Number: 310-312334-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody

Temperature

Preservation

Condition

Case Narrative

Holding Times

X			MW-12R was submitted for herbicide analysis but was not listed on the COC.
X			
	X		MW-38 was received with insufficient preservative; the sample was preserved to the appropriate pH by the laboratory.
X			
X			
X			

Analytical Sensitivity and Blanks

Method Blank Detections

Trip Blank Detections

Accuracy

ICV/CCV

LCS/LCSD

MS/MSD

Surrogates (organics only)

X			No detections.
X			No detections.

	X		A continuing calibration verification (CCV) recovered above upper control limits for bromomethane; associated samples were non-detect for the affected analyte, so the data was reported.
	X		The laboratory control sample duplicate (LCSD) recovered outside control limits for Silvex (2,4,5-TP); the analyte was biased high in the LCSD and was not detected in the associated samples, so the data was reported.
X			
X			

Precision

QA/QC Sample RPDs

Field Duplicates

X			
X			Sample MW-21 and sample MW-D1 had <50% RPD for analyzed parameters with the exception of zinc (not detected in the duplicate). Sample MW-25 and sample MW-D1 had <50% RPD for analyzed parameters.

Completed by: Nathan Ohrt
Date of Sampling: 7/29-30/2025
Lab Report Date: 8/4/2025
Site Name: Muscatine County Sanitary Landfill
Project Type: 2025 Nitrate
Lab Report Number: 310-312334-2

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody
Temperature
Preservation
Condition
Case Narrative

Holding Times

X			
X			
X			
X			
X			
X			MW-12R was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less; the laboratory had insufficient time remaining to perform the analysis within holding time.

Analytical Sensitivity and Blanks

Method Blank Detections
Trip Blank Detections

Accuracy

ICV/CCV
LCS/LCSD
MS/MSD
Surrogates (organics only)

X			No detections.
X		X	

X			
X			
X			
X			

Precision

QA/QC Sample RPDs
Field Duplicates

X			
		X	

Appendix C
Reporting Period Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Muscatine County Landfill - 70-SDP-02-75P

	Sample Date	MW-29 UPG	MW-49BG UPG	MW-50BG UPG	MW-2 DNG	MW-4 DNG	MW-9 DNG	MW-10A DNG	MW-11 DNG	MW-12R DNG	MW-13 DNG	MW-20 DNG	MW-21 DNG	MW-22 DNG	MW-23 DNG	MW-24 DNG	MW-25 DNG	MW-26 DNG	MW-30 DNG	MW-31 DNG	MW-33 DNG	MW-34 DNG	MW-35 DNG	MW-36 DNG	MW-37 DNG	MW-38 DNG	MW-39 DNG	MW-46 DNG	MW-51 DNG	MW-56 DNG	MW-57 DNG
Total Metals Constituents																															
Antimony, mg/L (CAS NO - 7440-36-0)	3/24/2025	N/A	N/A	N/A	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	0.00101*	< 0.002	< 0.002	0.00108*	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	< 0.002	N/A	< 0.002	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.004	< 0.002	N/A	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	3/24/2025	N/A	0.00292	< 0.002	0.00054*	0.00508	0.00117*	< 0.002	< 0.002	0.019	0.00422	< 0.002	< 0.002	< 0.002	0.0346	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	< 0.002	0.000101*	0.0361	0.00168*	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	< 0.002	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.002	N/A	N/A	0.00139*	0.0124	0.00108*	N/A	0.000756*	0.0215	0.00535	N/A	0.000612*	0.000587*	0.0464	N/A	0.000616*	0.000791*	N/A	N/A	N/A	N/A	N/A	< 0.002	0.000822*	0.0595	0.00467	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	3/24/2025	N/A	3.19	0.164	0.286	0.363	0.108	0.14	0.0723	3.23	0.634	0.0624	0.0577	0.275	0.482	0.251	0.297	0.127	N/A	N/A	N/A	N/A	N/A	0.349	0.0776	16.5	0.151	0.537	1.16	0.693	0.0492
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0619	N/A	N/A	N/A	0.236	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	0.0706	N/A	N/A	0.393	0.455	0.115	N/A	0.125	3.36	0.577	N/A	0.0718	0.246	0.5	N/A	0.195	0.0342	N/A	N/A	N/A	N/A	N/A	0.279	0.126	14.1	0.181	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0746	N/A	N/A	N/A	0.213	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	3/24/2025	N/A	N/A	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.004	< 0.001	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	3/24/2025	N/A	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000104*	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	< 0.0002	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.0002	N/A	N/A	0.000159*	< 0.0002	< 0.0002	N/A	0.000283	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002	< 0.004	< 0.0002	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	3/24/2025	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00189*	< 0.005	0.00875	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	0.002*	< 0.005	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	0.00236*	< 0.005	0.0599	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	0.00198*	< 0.005	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00233*	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	3/24/2025	N/A	0.00486	0.000732	0.00136	0.000276*	< 0.0005	< 0.0005	0.000184*	0.011	< 0.0005	0.000186*	< 0.0005	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	< 0.0005	0.000172*	0.0357	0.00105	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	0.000198*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.0005	N/A	N/A	0.0344	0.000348*	< 0.0005	N/A	0.000255*	0.0128	< 0.0005	N/A	< 0.0005	< 0.0005	0.00641	N/A	< 0.0005	0.000674	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	0.0346	0.00372	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	3/24/2025	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	0.00338*	< 0.005	< 0.005	N/A	< 0.005	< 0.005	0.00951	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.1	< 0.005	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	3/24/2025	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000625	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	0.00338	N/A	< 0.0005	0.000708	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, mg/L (CAS NO - 7439-97-6)	3/24/2025	N/A	N/A	N/A	< 0.0002	N/A	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	< 0.0002	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	3/24/2025	N/A	0.00385*	< 0.005	0.00413*	< 0.005	< 0.005	< 0.005	< 0.005	0.0576	< 0.005	< 0.005	0.0039*	< 0.005	0.0104	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	0.00762	< 0.005	0.0712	0.00822	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	< 0.005	N/A	N/A	0.015	< 0.005	< 0.005	< 0.005	< 0.005	0.0644	< 0.005	N/A	0.00436*	< 0.005	0.0604	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	0.00457*	< 0.005	0.0685	0.0122	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00433*	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	3/24/2025	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	0.00264*	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	0.00987	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0026*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	< 0.005	< 0.005	N/A	N/A	< 0.005	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	3/24/2025	N/A	N/A	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	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.

Muscatine County Landfill - 70-SDP-02-75P

Appendix C - Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry
Muscatine County Landfill - 70-SDP-02-75P

Appendix I VOC Constituents	Sample Date	MW-29 UPG	MW-49BG UPG	MW-50BG UPG	MW-2 DNG	MW-4 DNG	MW-9 DNG	MW-10A DNG	MW-11 DNG	MW-12R DNG	MW-13 DNG	MW-20 DNG	MW-21 DNG	MW-22 DNG	MW-23 DNG	MW-24 DNG	MW-25 DNG	MW-26 DNG	MW-30 DNG	MW-31 DNG	MW-33 DNG	MW-34 DNG	MW-35 DNG	MW-36 DNG	MW-37 DNG	MW-38 DNG	MW-39 DNG	MW-46 DNG	MW-51 DNG	MW-56 DNG	MW-57 DNG
Methylene Chloride, ug/L (CAS NO - 75-09-2)	3/24/2025	N/A	N/A	N/A	<5	<5	<5	<5	<5	<5	<5	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<5	<5	N/A	<5	<5	<5	N/A	N/A	<5	<5	N/A	N/A	<5	N/A	N/A	N/A	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<1	<1	N/A	<1	<1	<1	N/A	N/A	<1	<1	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<1	<1	N/A	<1	<1	<1	N/A	N/A	<1	<1	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<1	<1	N/A	<1	<1	<1	N/A	N/A	<1	<1	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	0.729*	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<1	<1	N/A	<1	<1	0.354*	N/A	N/A	<1	<1	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	3/24/2025	N/A	N/A	N/A	<5	<5	<5	<5	<5	<5	<5	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<5	<5	N/A	<5	<5	<5	N/A	N/A	<5	<5	N/A	N/A	<5	N/A	N/A	N/A	N/A	N/A	<5	<5	<5	<5	N/A	N/A	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	3/24/2025	N/A	N/A	N/A	<10	<10	<10	<10	<10	<10	<10	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10	N/A	<10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<10	<10	N/A	<10	<10	<10	N/A	N/A	<10	<10	N/A	N/A	<10	N/A	N/A	N/A	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	<1	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	<1	<1	N/A	<1	<1	<1	<1	N/A	N/A	<1	<1	N/A	N/A	<1	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	3/24/2025	N/A	N/A	N/A	<4	<4	<4	<4	<4	<4	<4	N/A	N/A	<4	<4	<4	<4	N/A	N/A	N/A	N/A	N/A	N/A	<4	<4	<4	<4	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<4	N/A	<4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<4	<4	N/A	<4	<4	<4	N/A	N/A	<4	<4	N/A	<4	N/A	N/A	N/A	N/A	N/A	N/A	<4	<4	<4	<4	N/A	N/A	N/A	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	3/24/2025	N/A	N/A	N/A	<10	<10	<10	<10	<10	<10	<10	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10	N/A	<10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<10	<10	N/A	<10	<10	<10	N/A	N/A	<10	<10	N/A	<10	N/A	<10	N/A	N/A	N/A	N/A	<10	<10	<10	<10	N/A	N/A	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	3/24/2025	N/A	N/A	N/A	<1	<1	<1	<1	<1	<1	1.95	N/A	N/A	<1	<1	<1	<1	N/A	2.96	N/A	N/A	<1	<1	<1	<1	<1	<1	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	<1	<1	N/A	<1	<1	<1	1.84	N/A	N/A	<1	<1	N/A	<1	N/A	N/A	N/A	N/A	N/A	N/A	<1	<1	<1	<1	N/A	N/A	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/24/2025	N/A	N/A	N/A	<3	<3	<3	<3	<3	<3	<3	N/A	N/A	<3	<3	<3	<3	N/A	N/A	N/A	N/A	N/A	N/A	<3	<3	0.898*	<3	N/A	N/A	N/A	N/A
	3/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<3	N/A	<3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	<3	<3	N/A	<3	<3	<3	N/A	N/A	<3	<3	N/A	<3	N/A	<3	N/A	N/A	N/A	N/A	<3	<3	<3	<3	N/A	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
Muscatine County Landfill - 70-SDP-02-75P

Other Constituents	Sample Date	MW-29 UPG	MW-49BG UPG	MW-50BG UPG	MW-2 DNG	MW-4 DNG	MW-9 DNG	MW-10A DNG	MW-11 DNG	MW-12R DNG	MW-13 DNG	MW-20 DNG	MW-21 DNG	MW-22 DNG	MW-23 DNG	MW-24 DNG	MW-25 DNG	MW-26 DNG	MW-30 DNG	MW-31 DNG	MW-33 DNG	MW-34 DNG	MW-35 DNG	MW-36 DNG	MW-37 DNG	MW-38 DNG	MW-39 DNG	MW-46 DNG	MW-51 DNG	MW-56 DNG	MW-57 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	3/24/2025	N/A	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	3/24/2025	N/A	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 142-28-9)	3/24/2025	N/A	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropane, ug/L (CAS NO - 99-65-0)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	3/24/2025	N/A	N/A	N/A	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	< 4	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	3/24/2025	N/A	N/A	N/A	< 0.162	N/A	N/A	< 0.149	< 0.161	N/A	N/A	N/A	N/A	< 0.161	N/A	< 0.169	< 0.166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/24/2025	N/A	N/A	N/A	< 0.054	N/A	N/A	< 0.0498	< 0.0538	0.232	N/A	N/A	N/A	< 0.0535	N/A	< 0.0564	< 0.0552	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/2025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/24/2025	N/A	N/A	N/A	< 0.648	N/A	N/A	< 0.597	< 0.646	N/A	N/A	N/A	N/A	< 0.642	N/A	< 0.676	< 0.663	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	3/24/2025	N/A	N/A	N/A	< 20.8	N/A	N/A	< 20.8	< 20.4	N/A	N/A	N/A	N/A	< 20.4	N/A	< 20.8	< 20.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	3/24/2025	N/A	N/A	N/A	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD, ug/L (CAS NO - 72-54-8)	3/24/2025	N/A	N/A	N/A	< 0.0914	N/A	N/A	< 0.0909	< 0.09	N/A	N/A	N/A	N/A	< 0.0907	N/A	< 0.0902	< 0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDE, ug/L (CAS NO - 72-55-9)	3/24/2025	N/A	N/A	N/A	< 0.0914	N/A	N/A	< 0.0909	< 0.09	N/A	N/A	N/A	N/A	< 0.0907	N/A	< 0.0902	< 0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDT, ug/L (CAS NO - 50-29-3)	3/24/2025	N/A	N/A	N/A	< 0.0914	N/A	N/A	< 0.0909	< 0.09	N/A	N/A	N/A	N/A	< 0.0907	N/A	< 0.0902	< 0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	3/24/2025	N/A	N/A	N/A	< 10.4	N/A	N/A	< 10.4	< 10.2	N/A	N/A	N/A	N/A	< 10.2	N/A	< 10.4	< 10.4	N/A	N/A</												

SCS ENGINEERS

Summary of Groundwater Chemistry

Muscatine County Landfill - 70-SDP-02-75P

[illegible]

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
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 Muscatine County Sanitary Landfill (Landfill).

Statistical Method

Diagnostic and Exploratory Evaluations and Tests of Assumptions

Both 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 ($\frac{1}{2}$) 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 of 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 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 $n < 20$ is evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ is evaluated with the Rosner's outlier test.
- A non-parametric dataset is 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 exceeded the second highest data point by an order of magnitude, the highest point is considered an outlier.

Management of Data (ND data $\geq$ 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 $\geq$ the PQL:
 - If $\geq 50\%$ of the background dataset has detections $\geq$ the method detection limit (MDL), any value $\geq$ two times the PQL of background is considered an outlier.
 - If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ the PQL of background is considered an outlier.
- Two or more detections $\geq$ the PQL:
 - If $\geq 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ three times the PQL of background is considered an outlier.
 - If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ two times the PQL of background is considered an outlier.

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report. Analytical data from prior to 2025 is located in the 2024 Annual Water Quality Report, dated February 25, 2025 (Doc #112391).

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 method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections. 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 are collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting results are above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program. If any 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 Method

The quasi-statistical "double quantification" method is used for constituents not detected in the background monitoring points. 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/Corrective Action Monitoring 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.

In the event that 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. An ACM was submitted to the DNR on March 31, 2021 (Doc #100106) and approved on September 21, 2023 (Doc #107733).

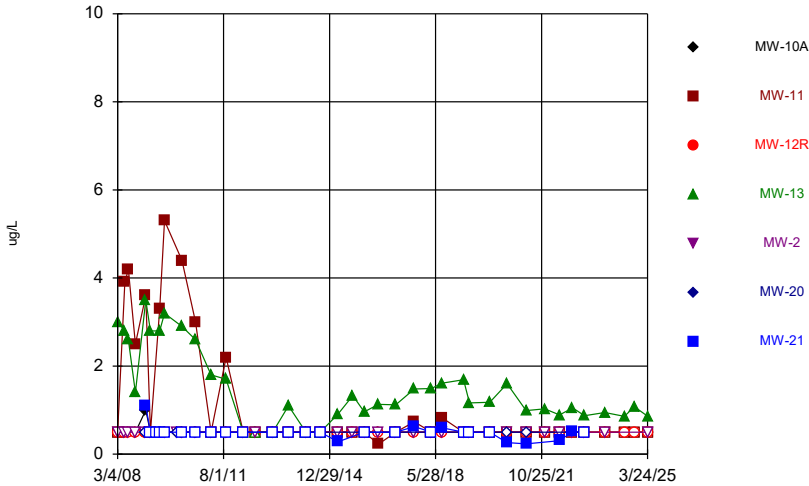
Statistical Software Output

Sanitas™ statistical software is used to perform the statistical evaluations. The statistical output for the 1st and 2nd 2025 statistical evaluations are included in Attachments A and B of this appendix, respectively.

Attachment A
1st 2025 Semi-Annual Statistical Output

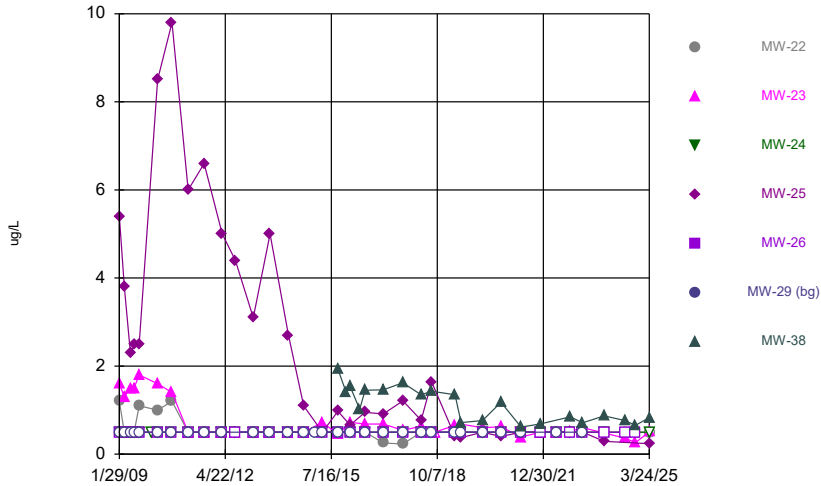
Time Series Plots

Time Series



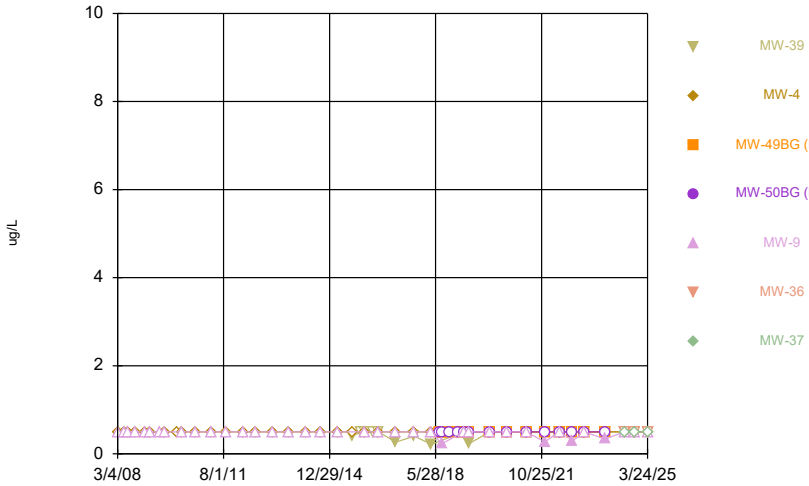
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Time Series



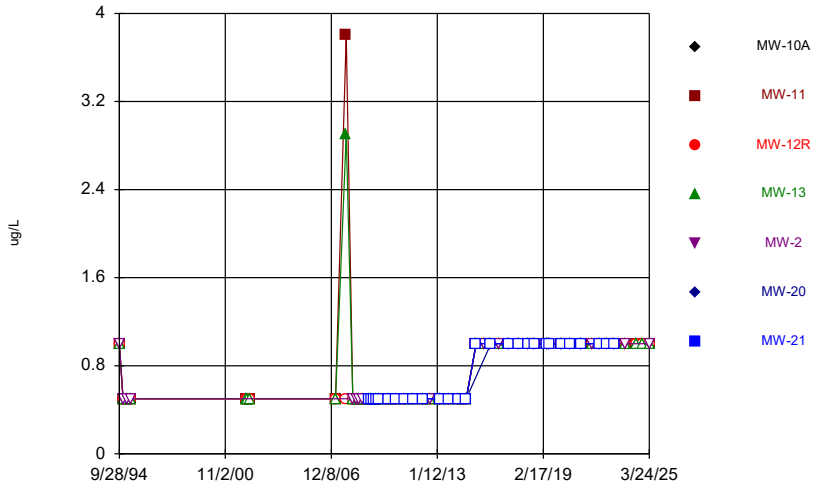
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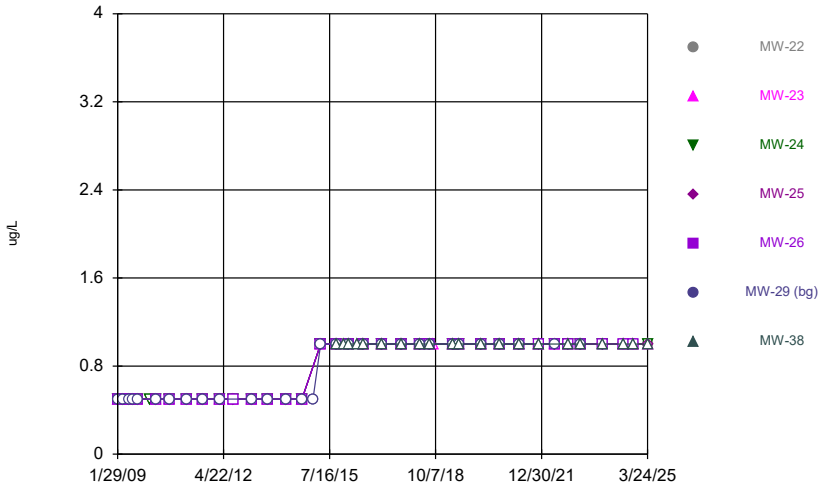
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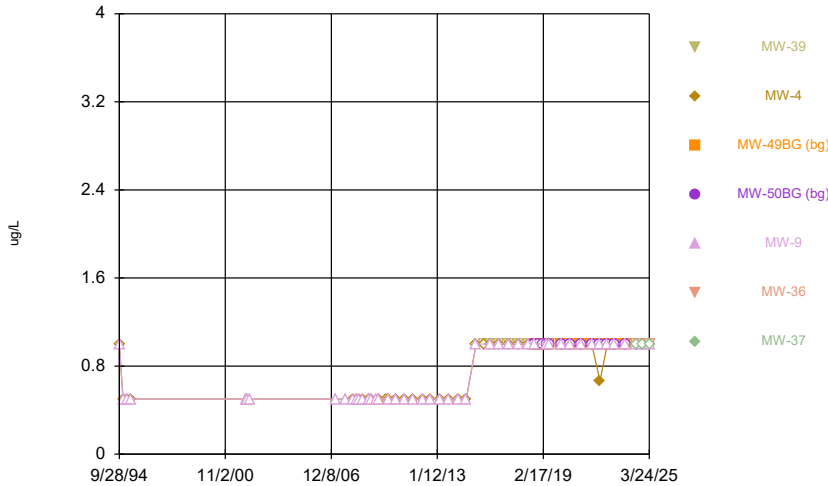
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Time Series



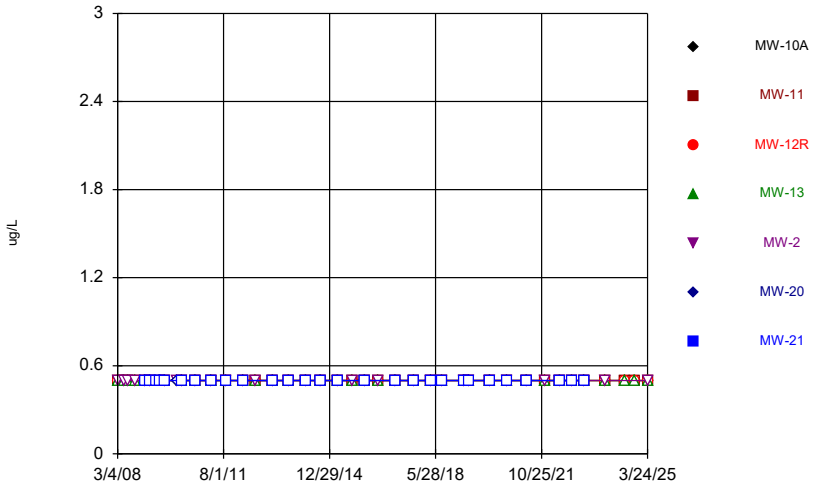
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Time Series



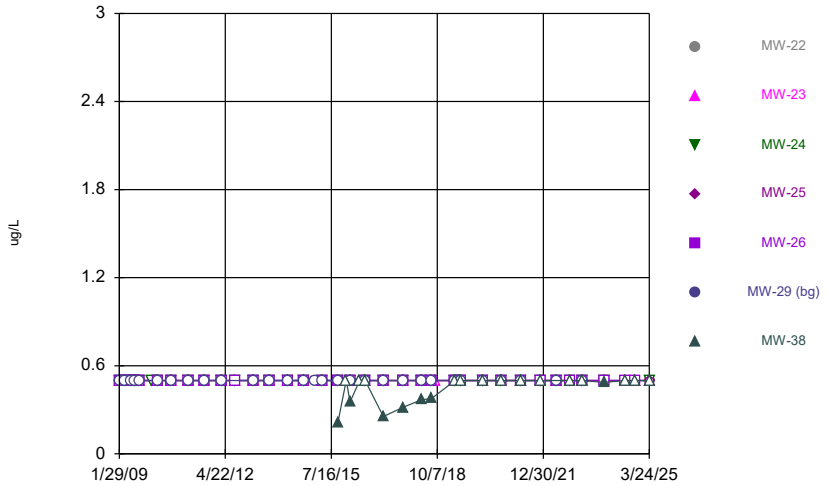
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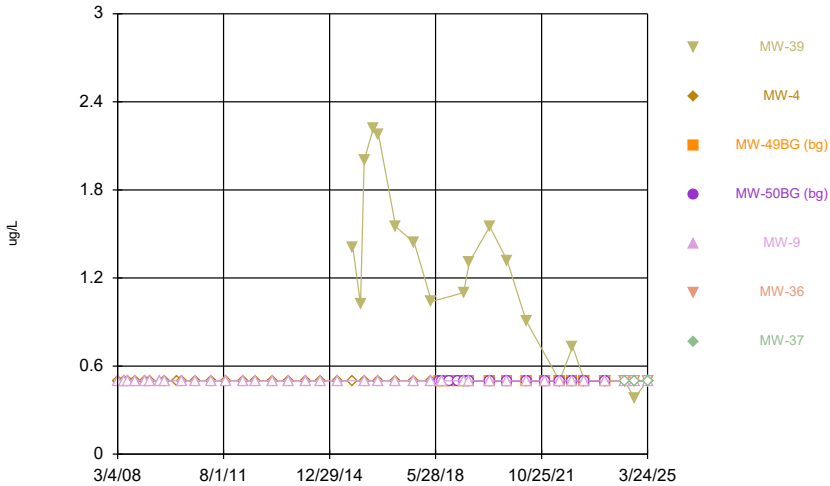
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Time Series



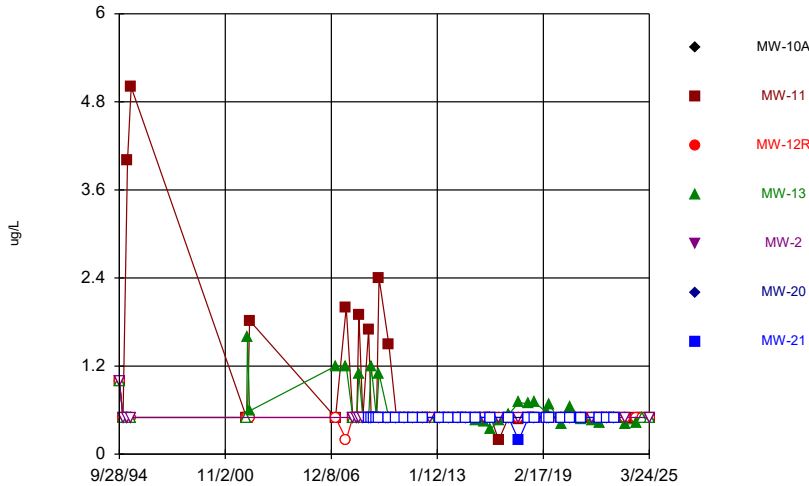
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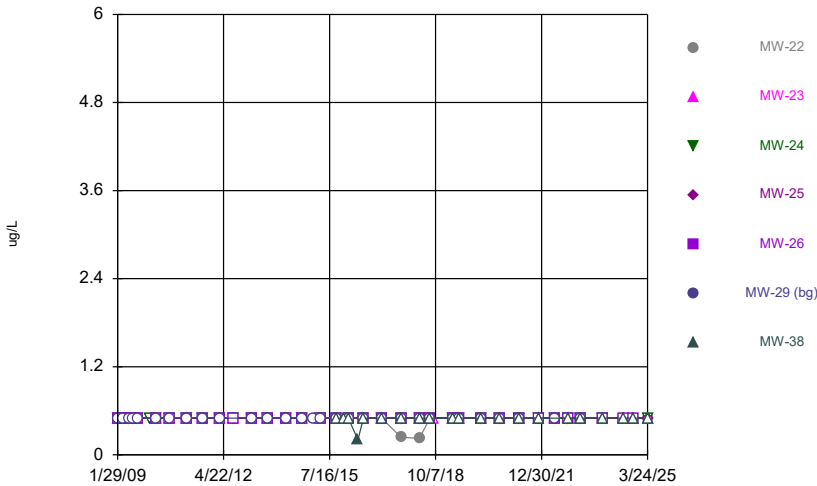
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



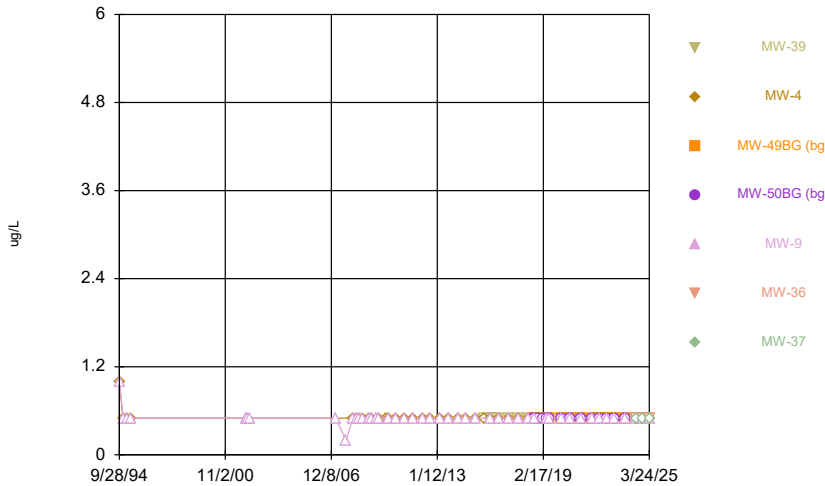
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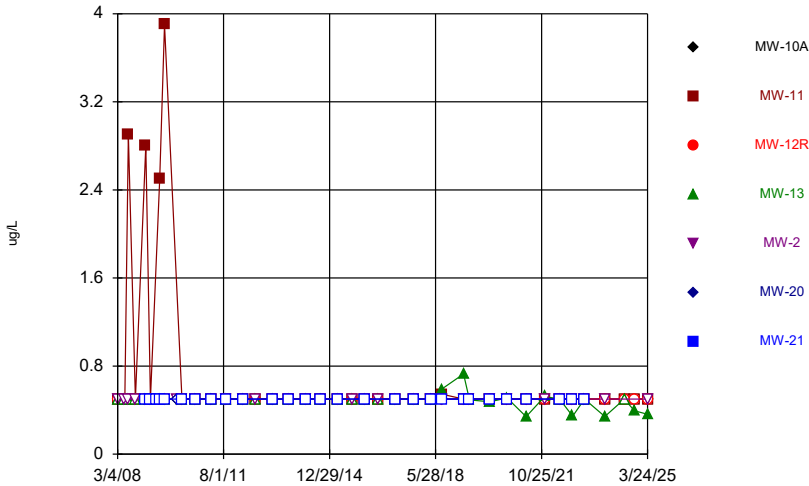
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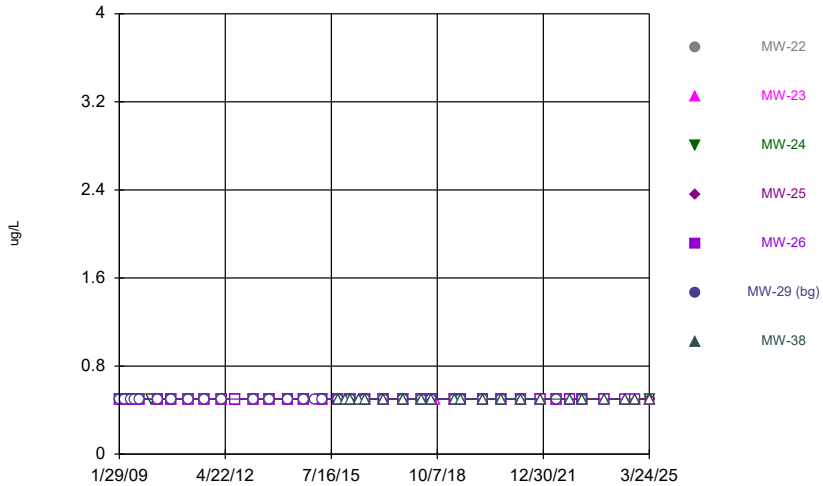
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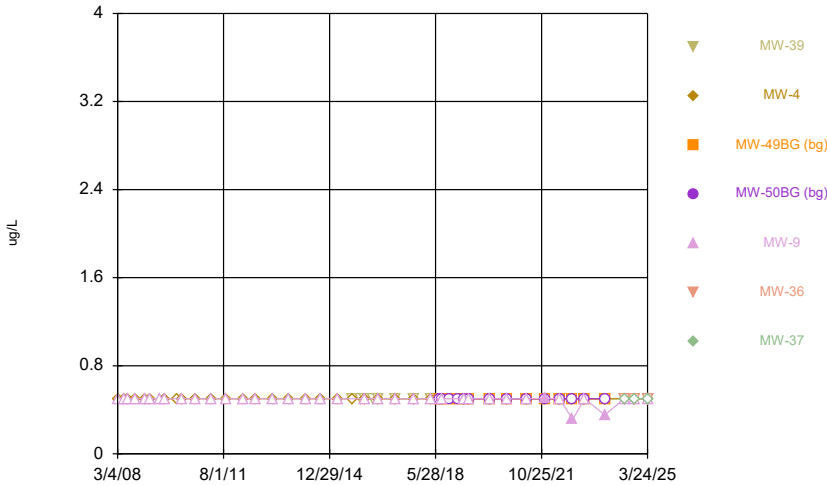
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Time Series



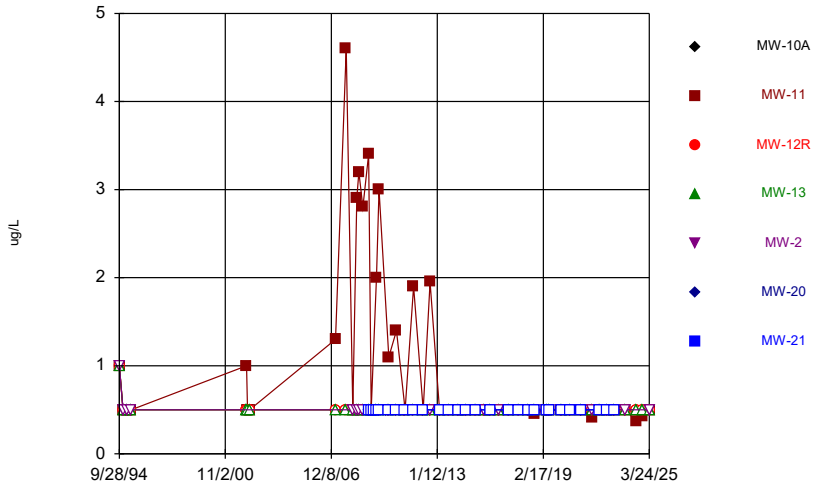
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Time Series



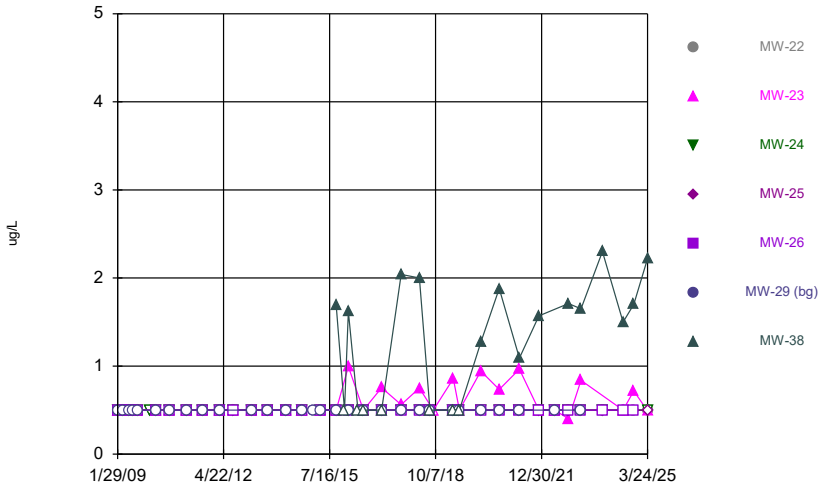
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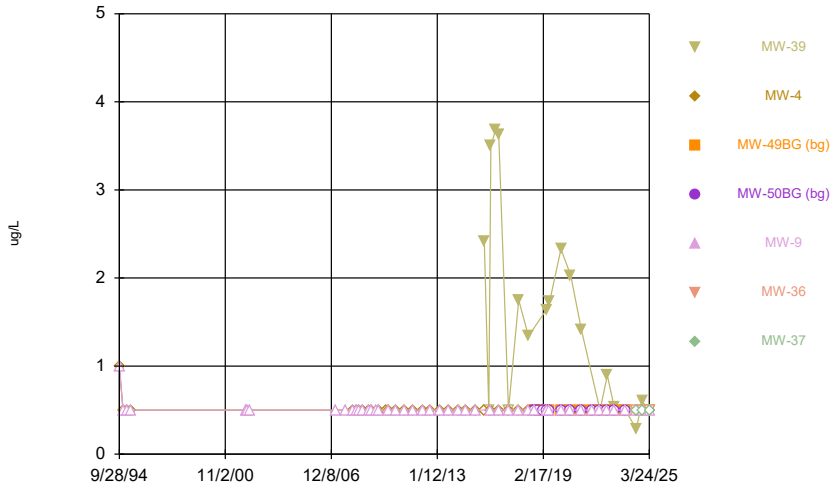


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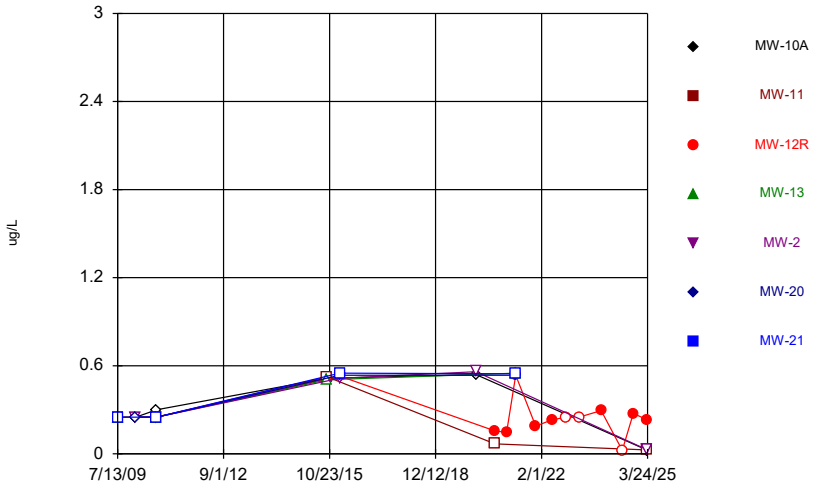
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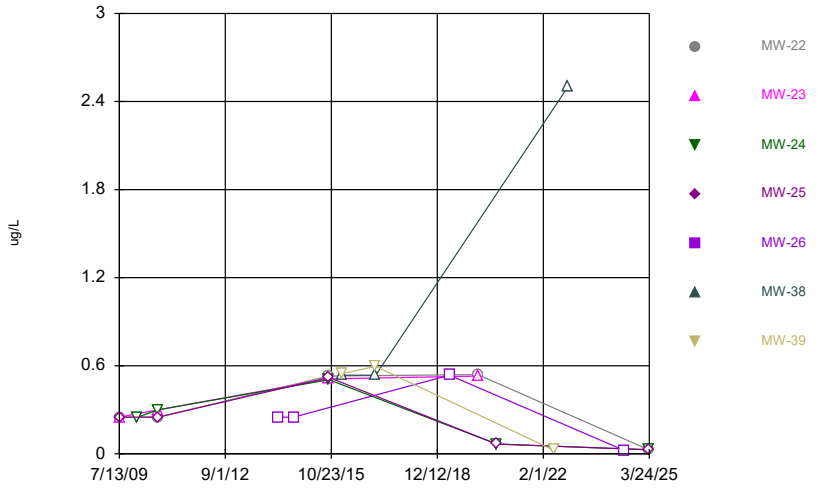
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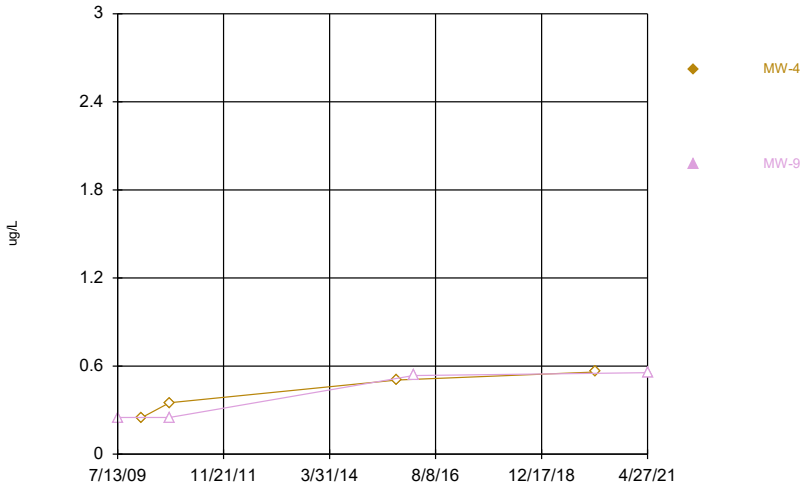
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Time Series

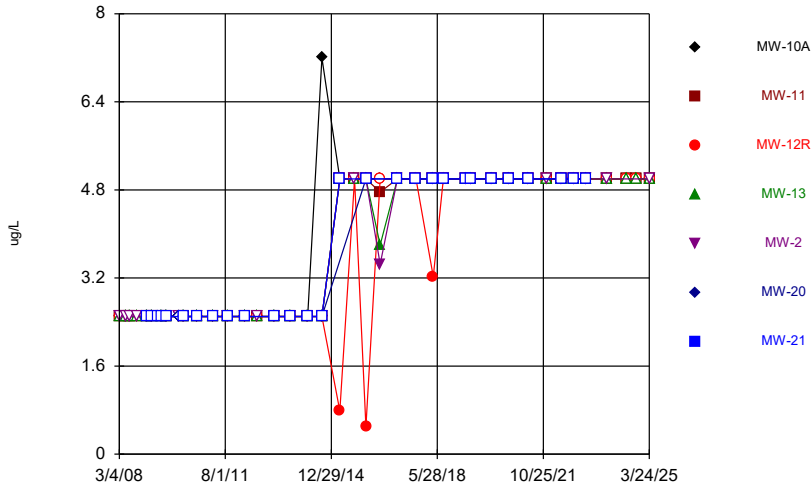


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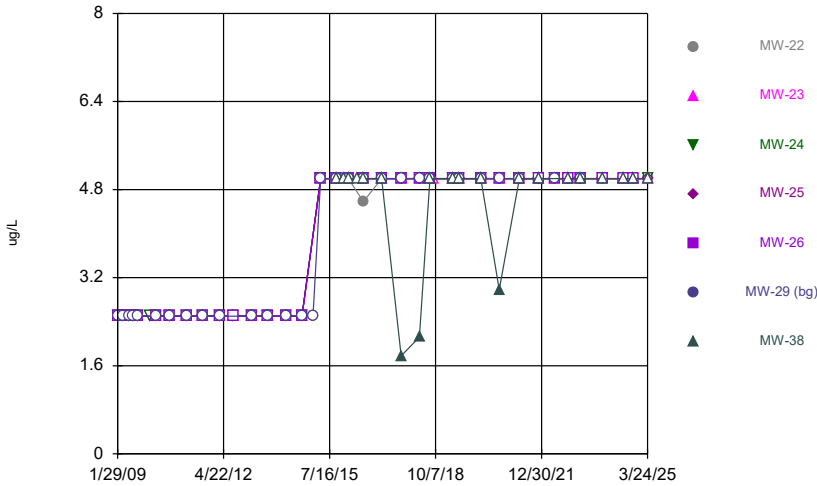
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Time Series



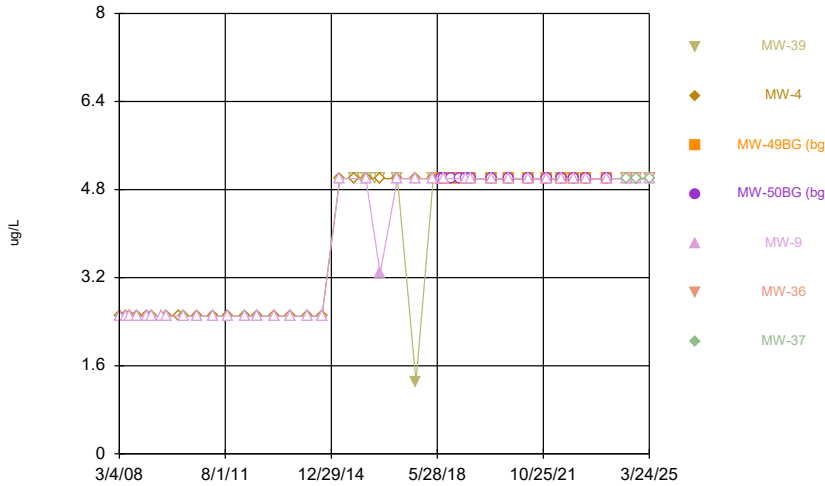
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Time Series



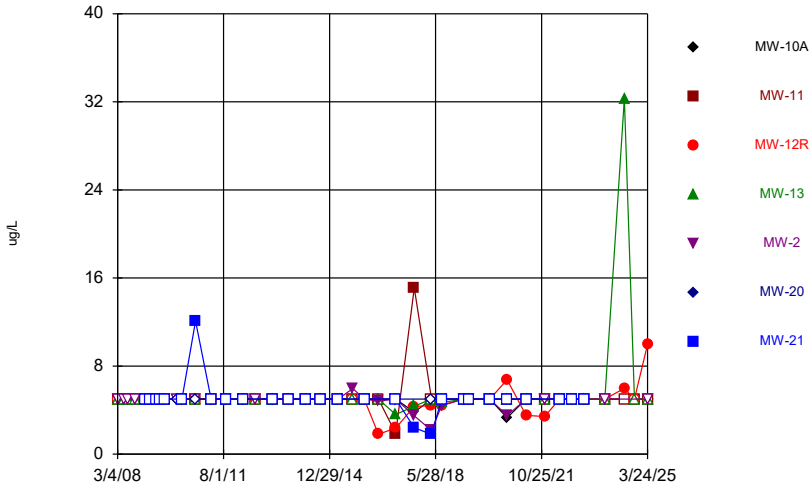
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Time Series



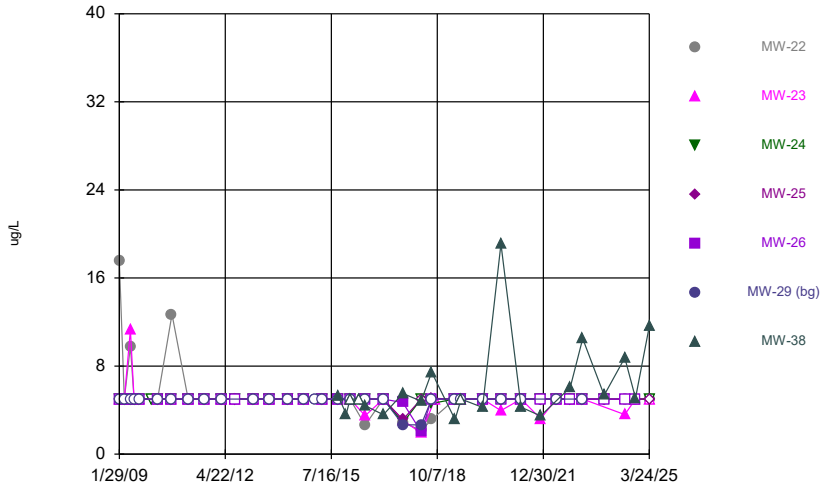
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Time Series



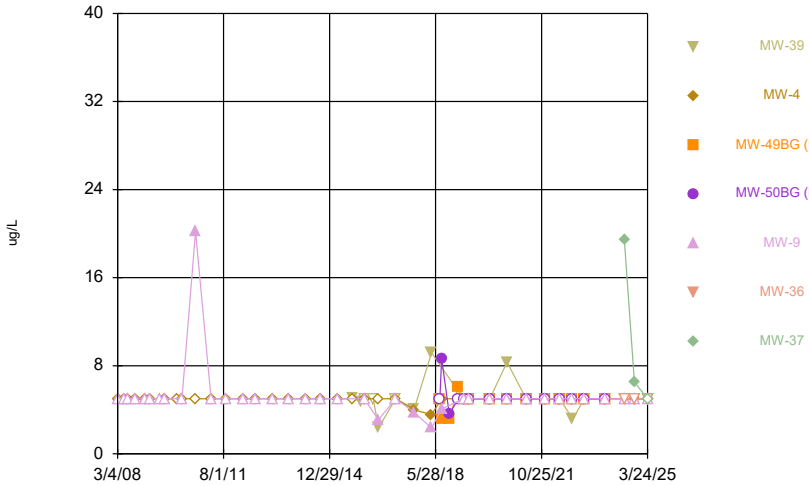
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Time Series



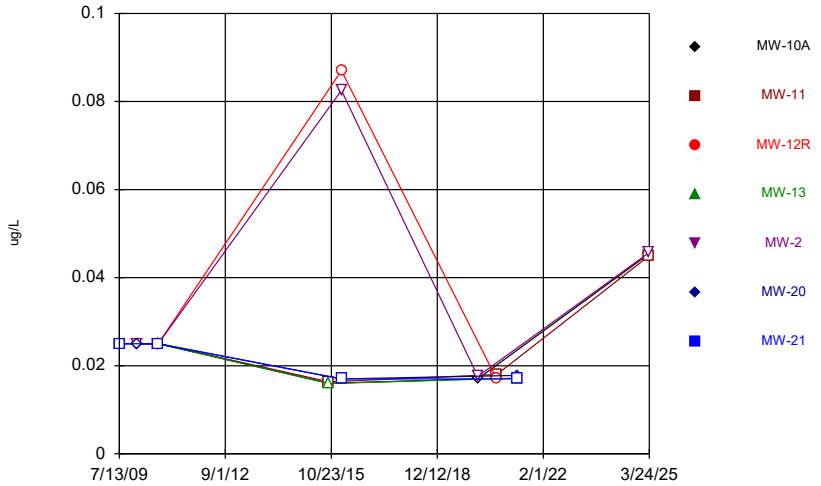
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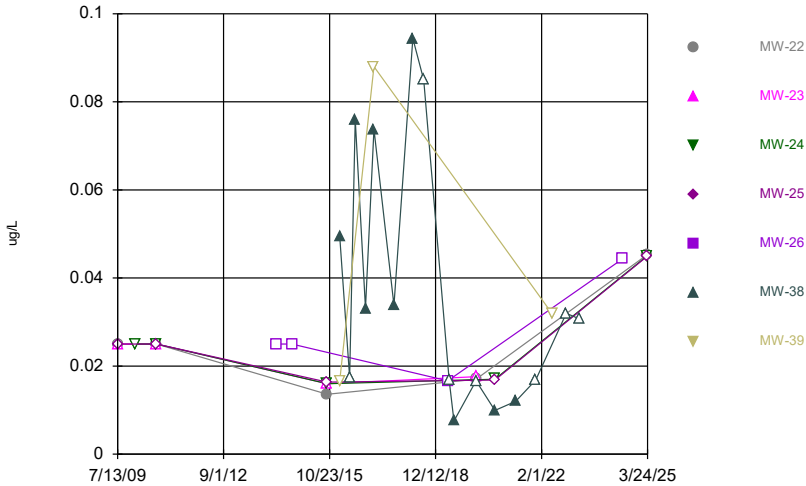
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Time Series

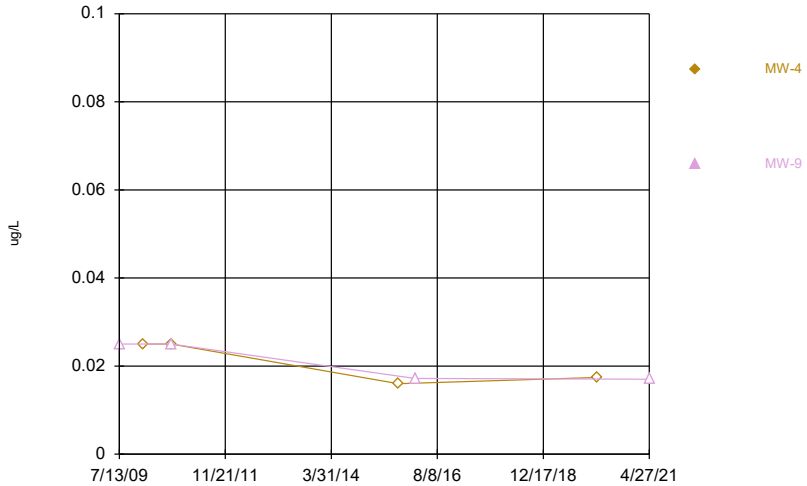


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

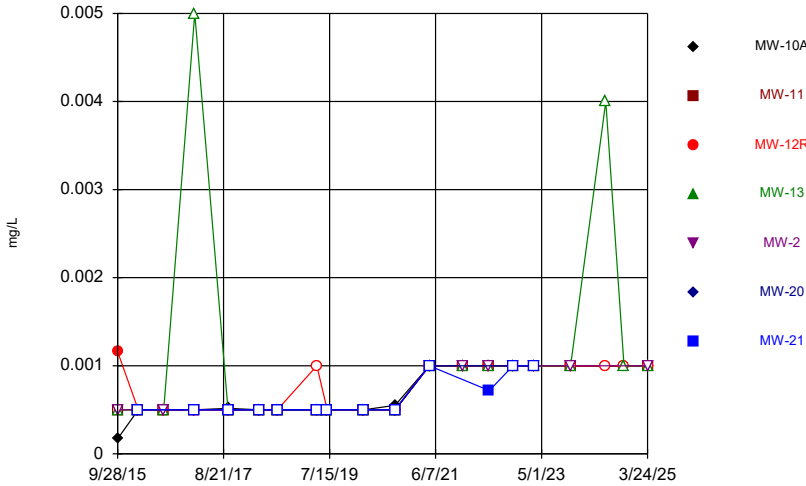
Time Series



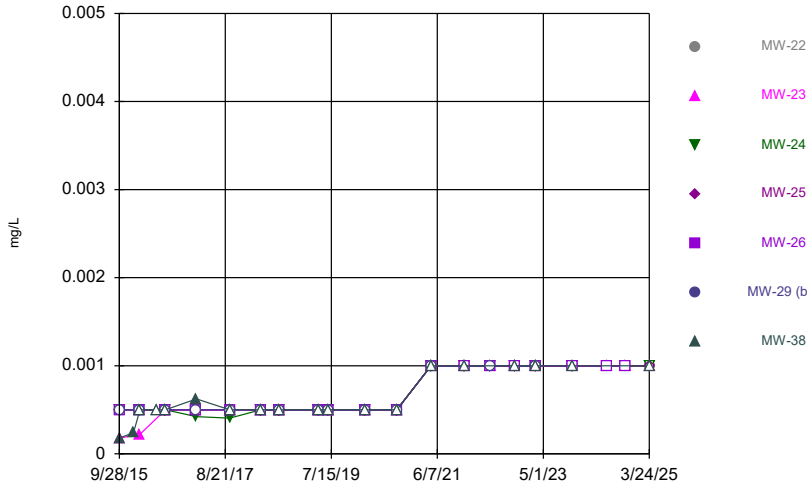
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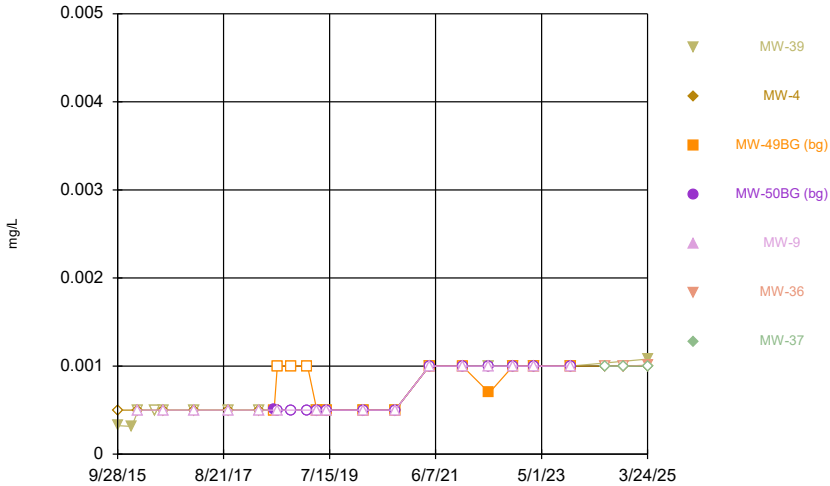
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Time Series

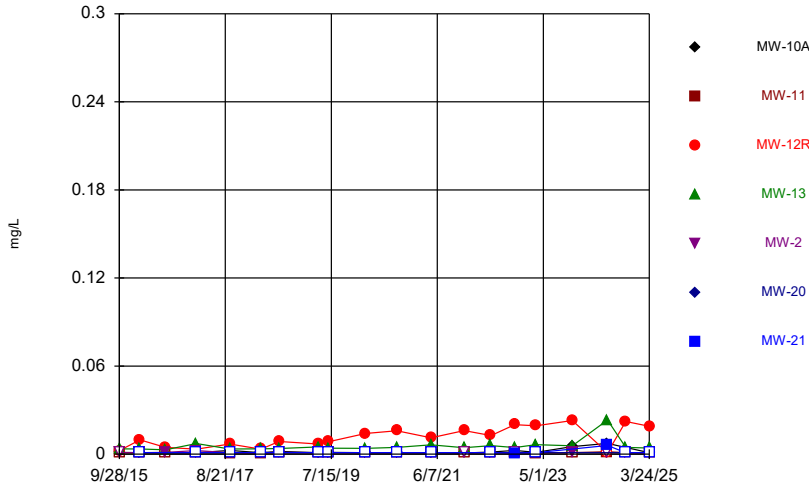


Time Series



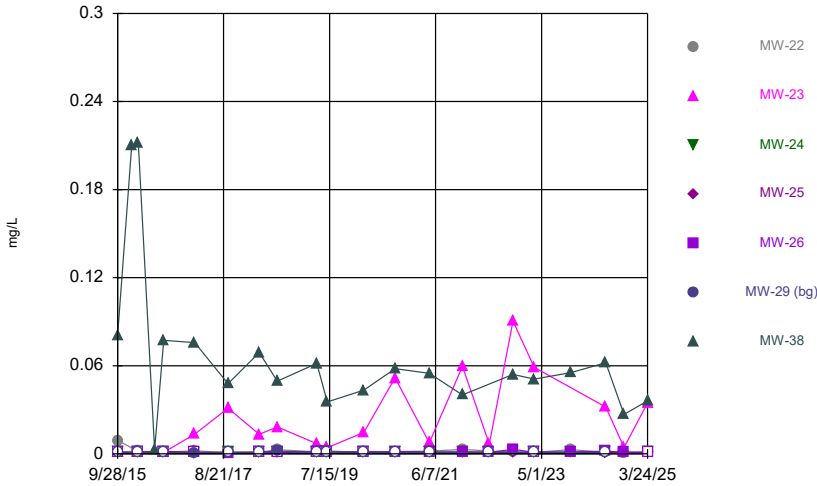
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



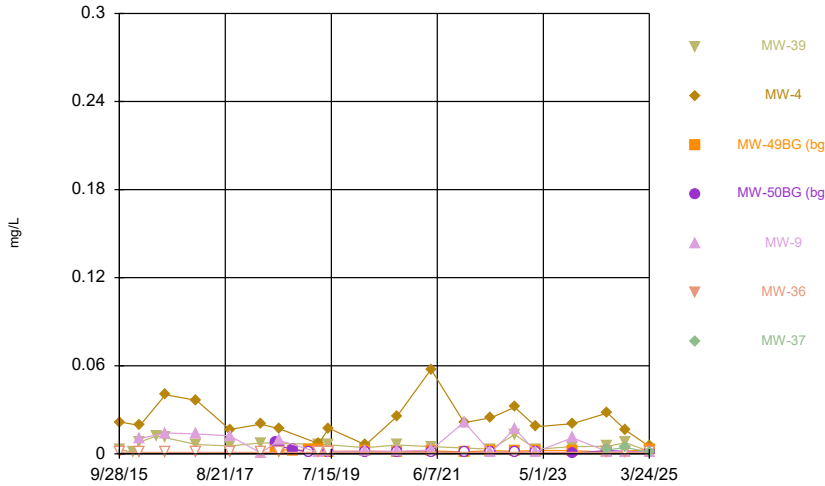
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



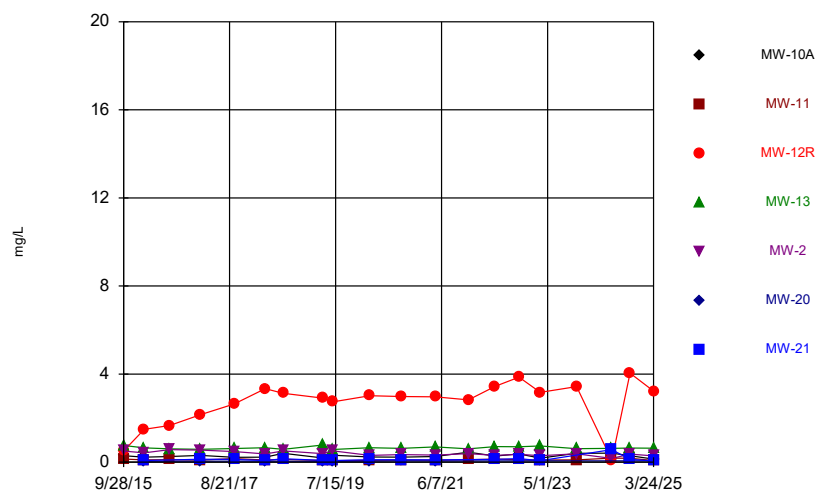
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Time Series

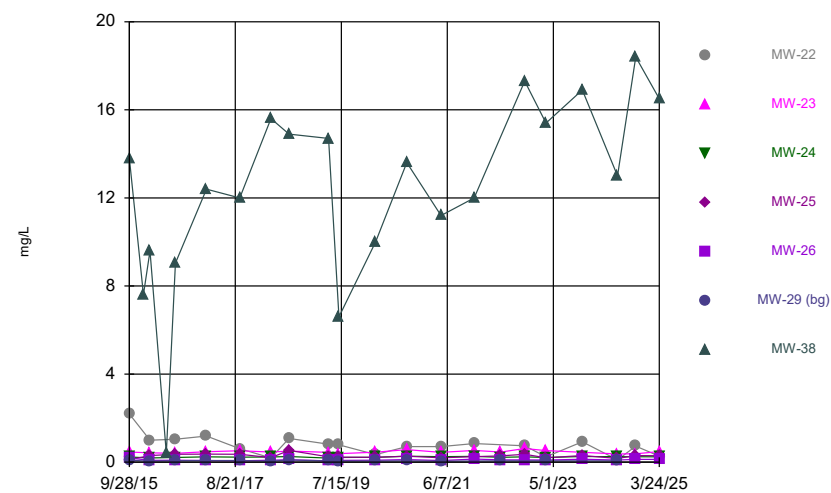


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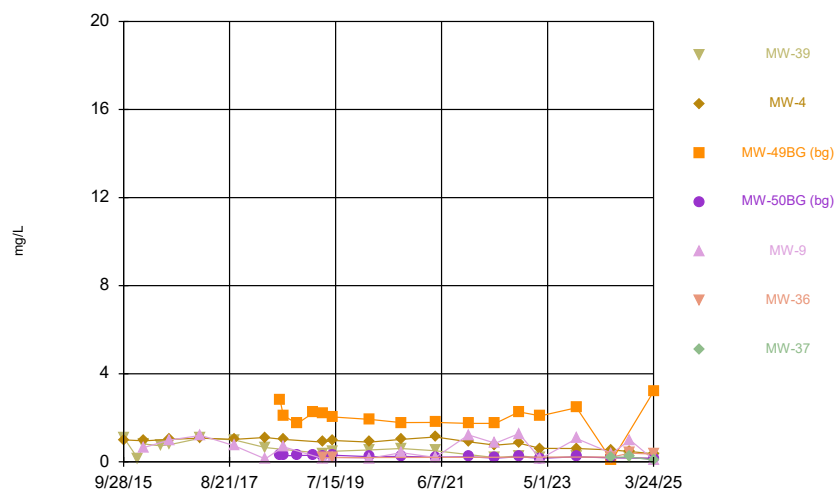
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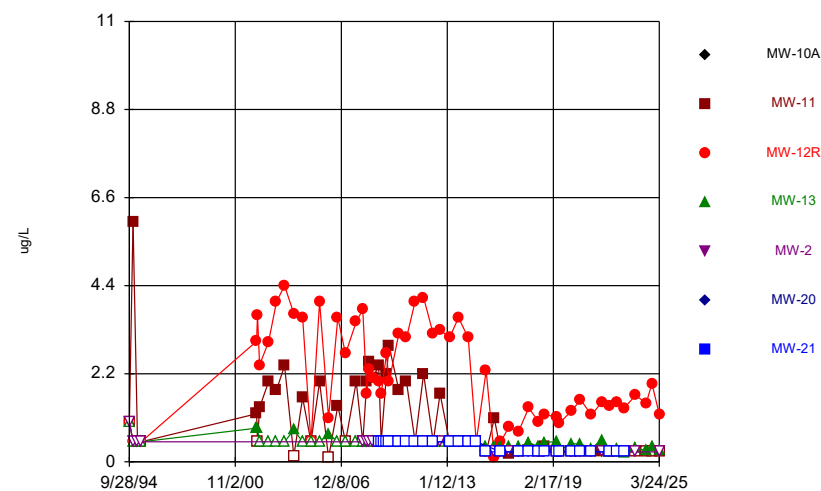
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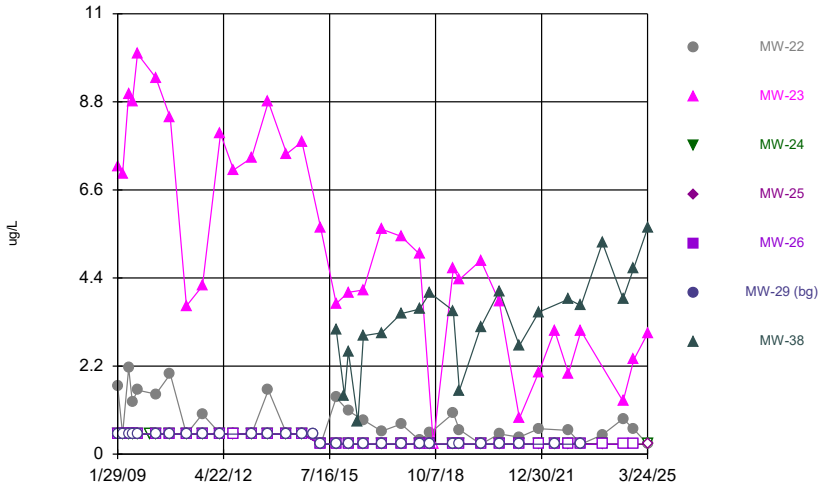
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Time Series

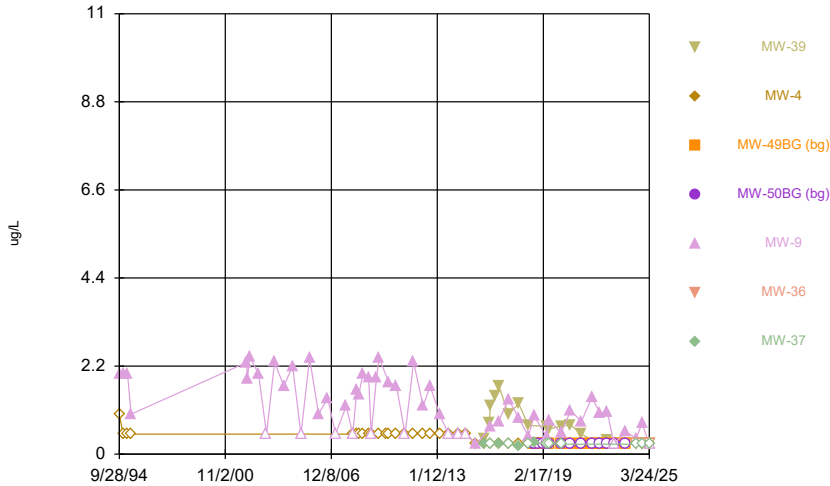


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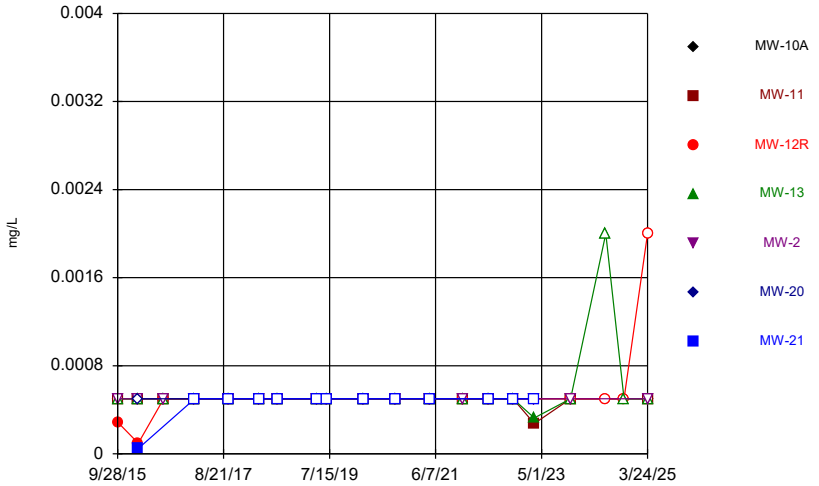
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



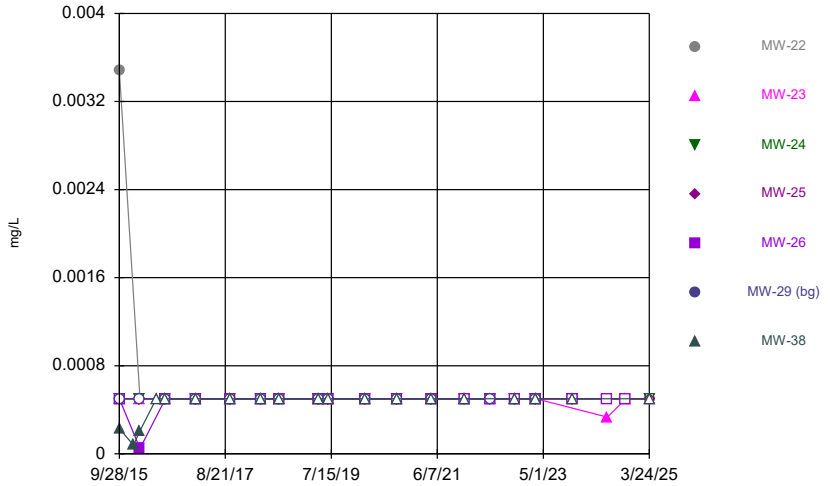
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Time Series



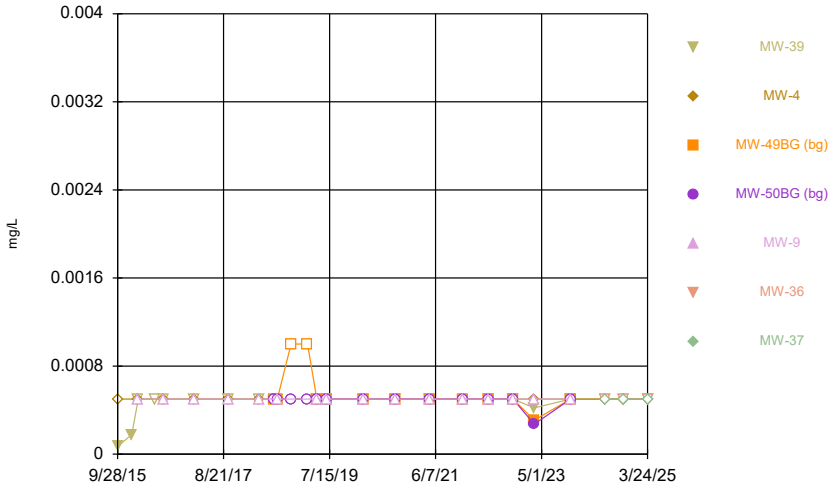
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

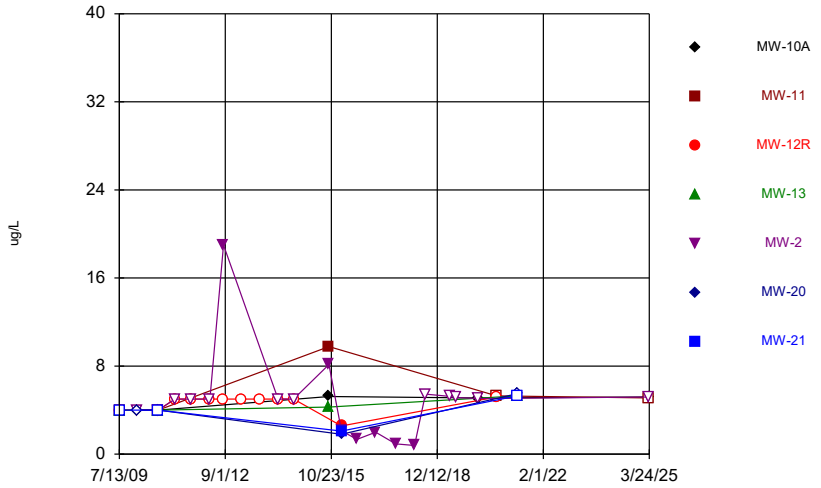


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

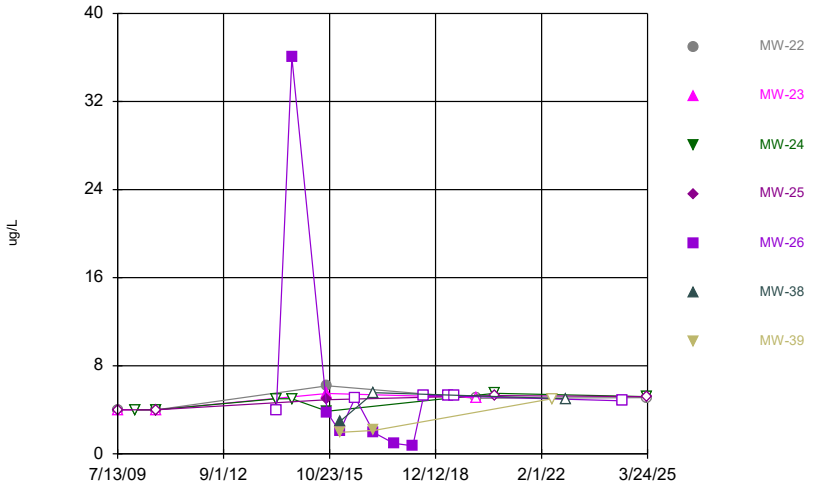
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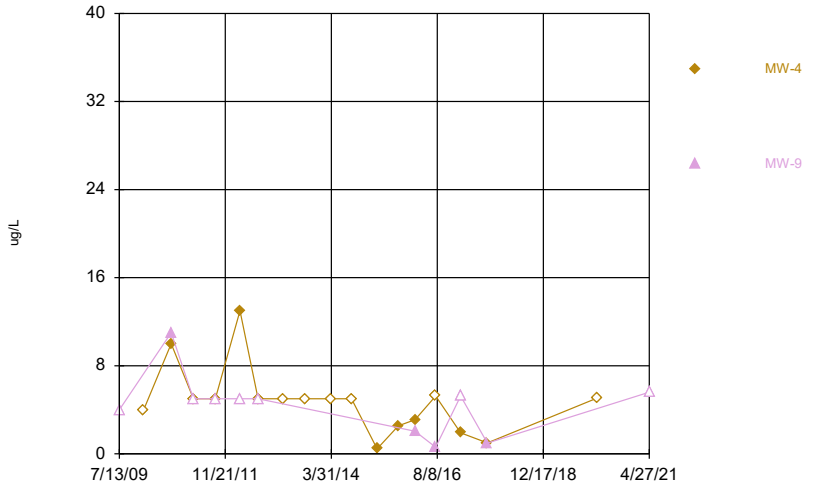
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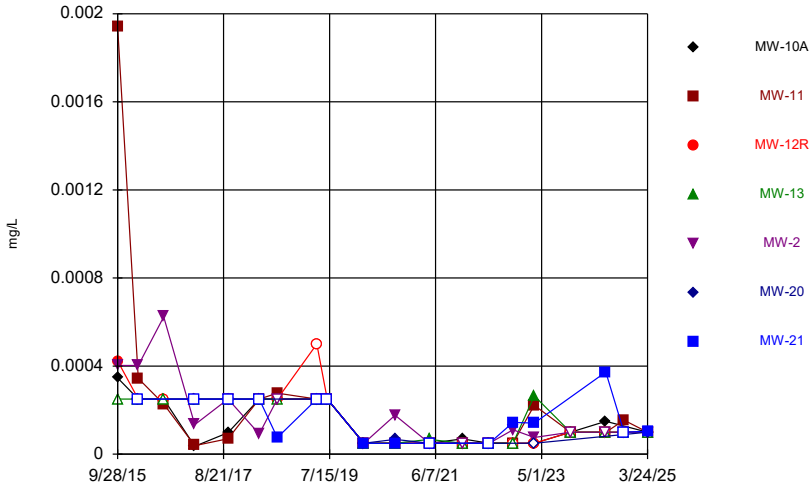
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Time Series

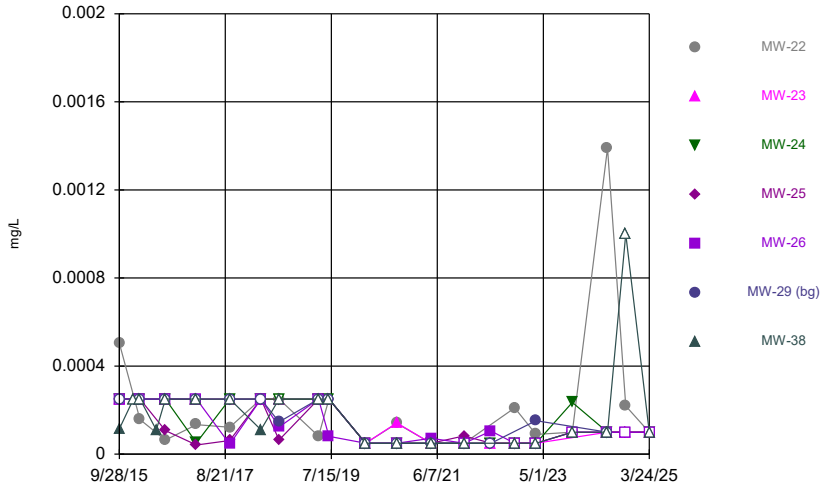


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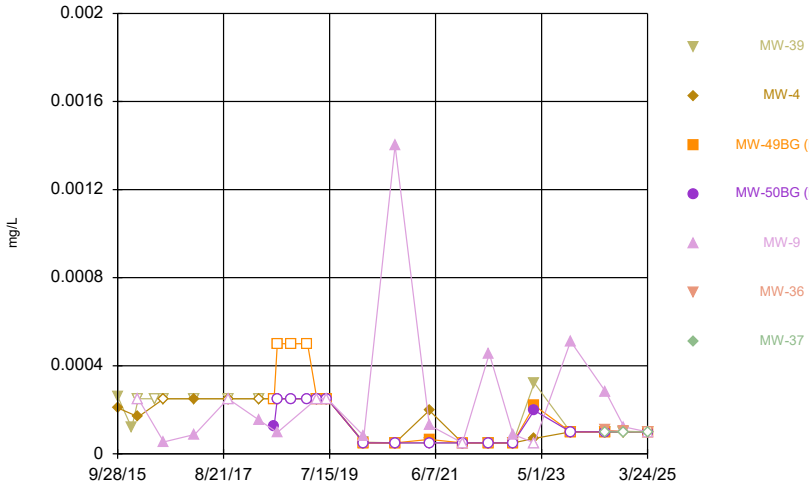
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



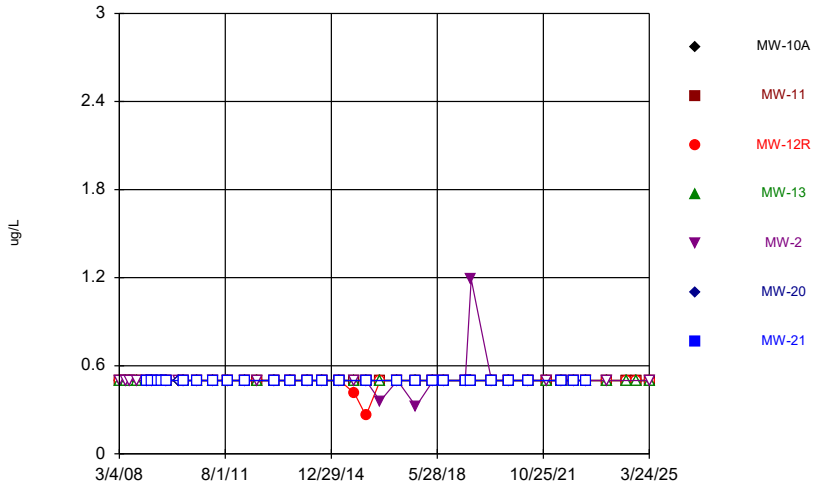
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



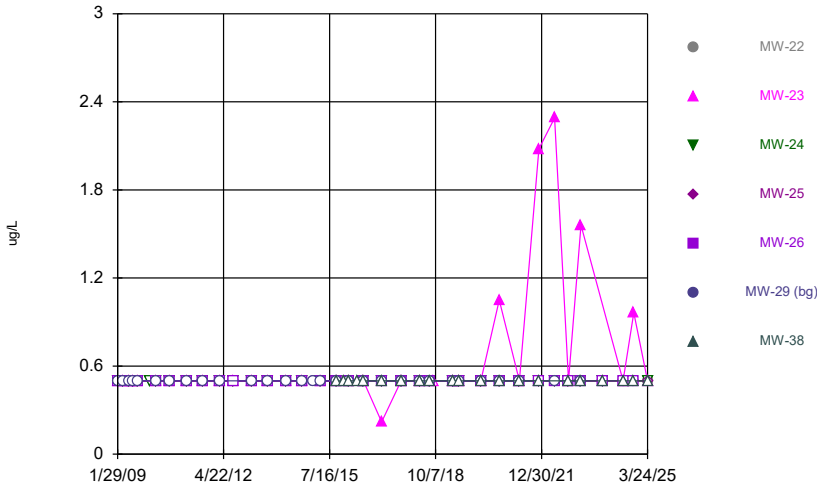
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



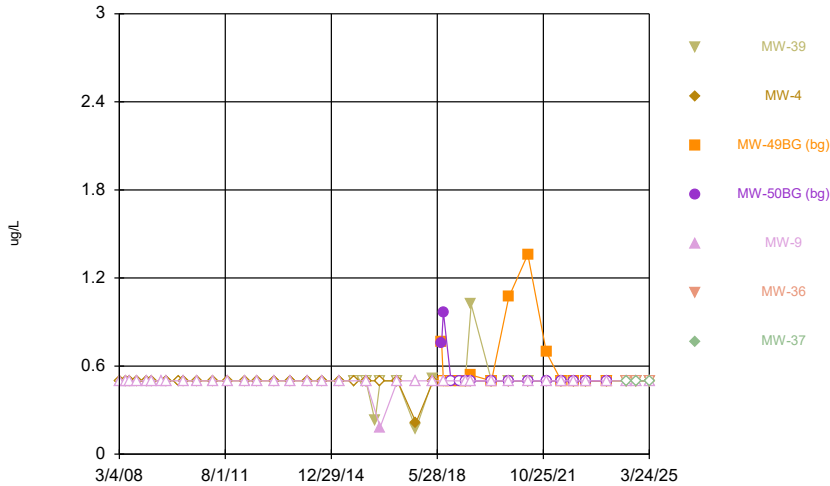
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



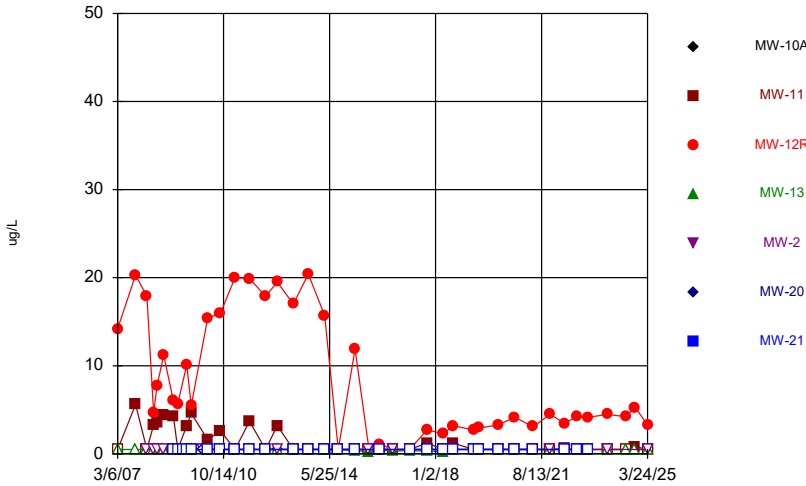
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



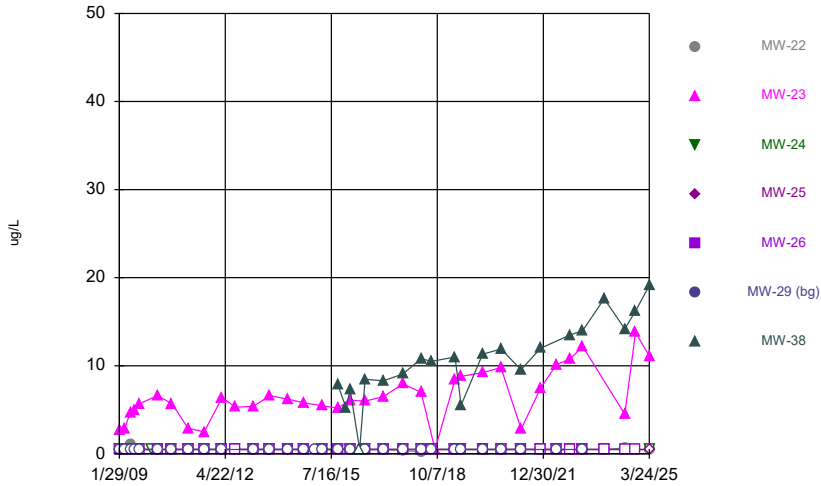
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



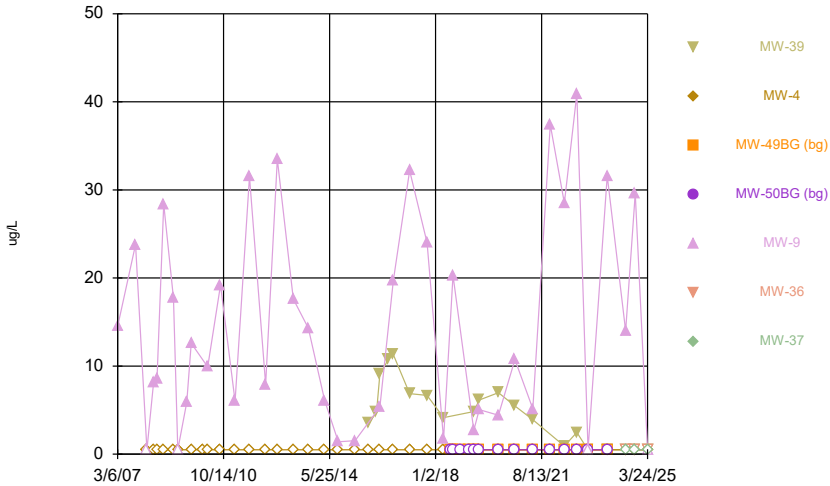
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



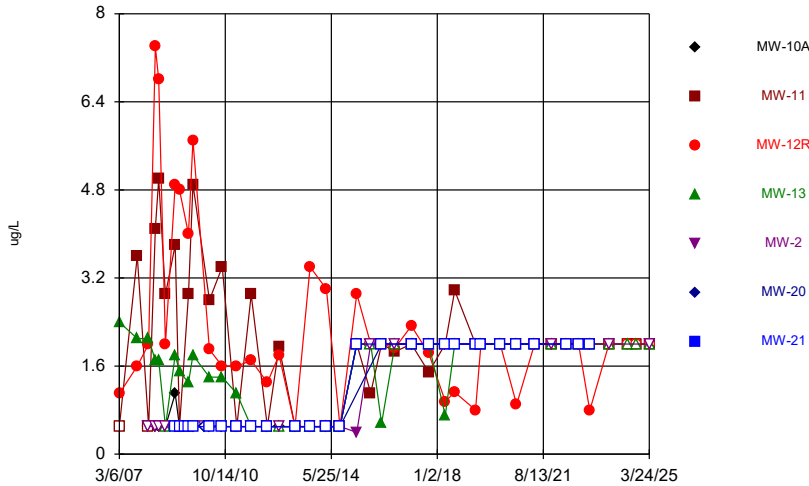
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Time Series



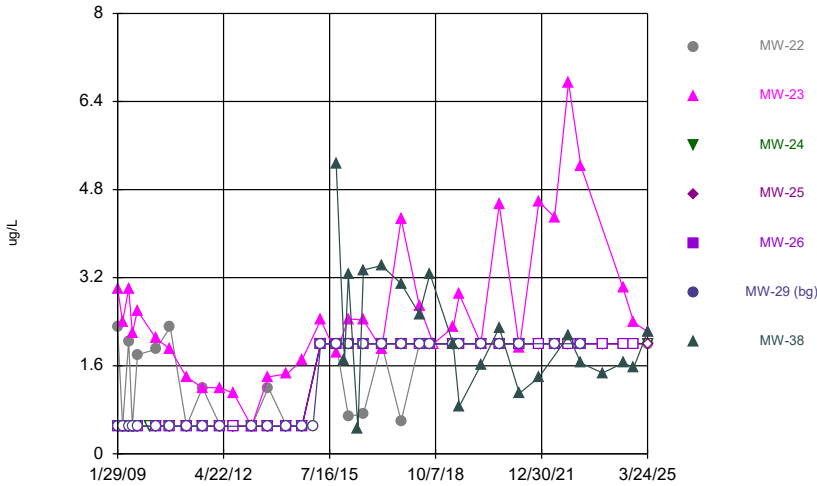
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



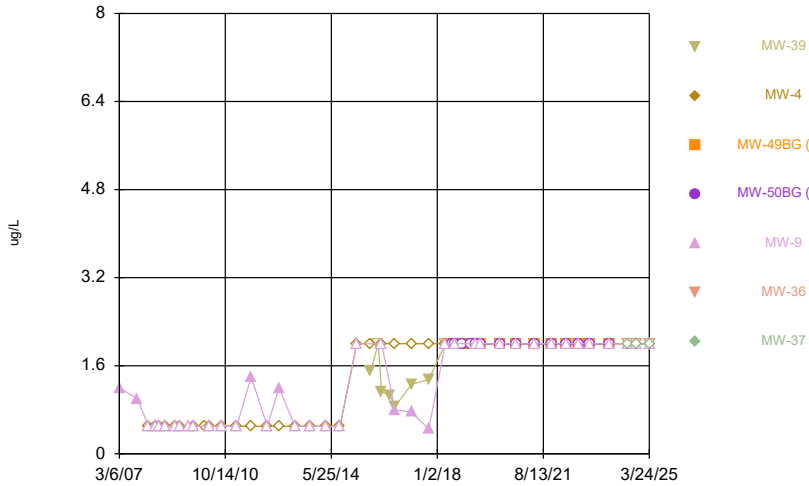
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



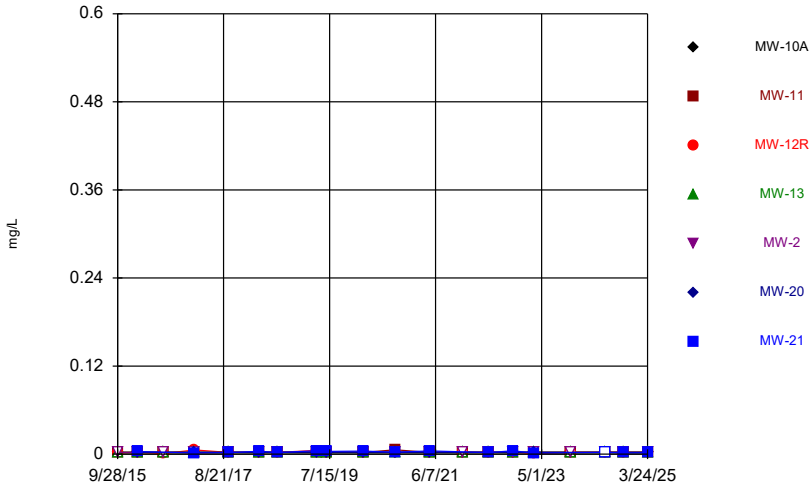
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Time Series



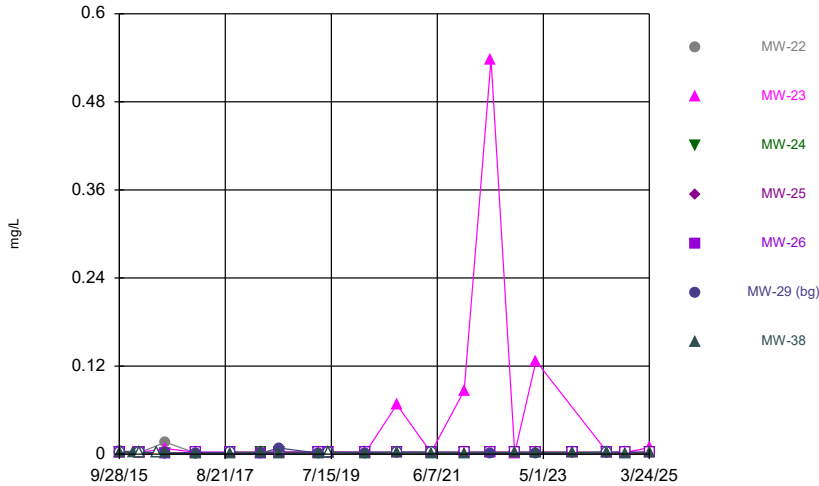
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Time Series



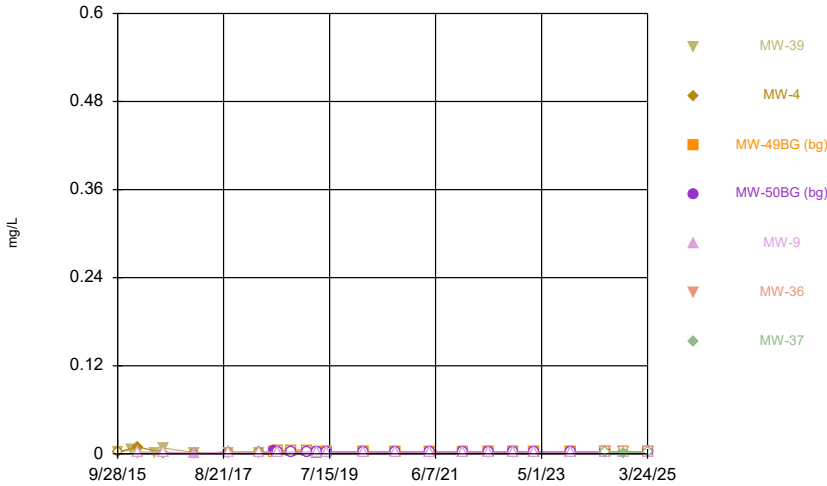
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



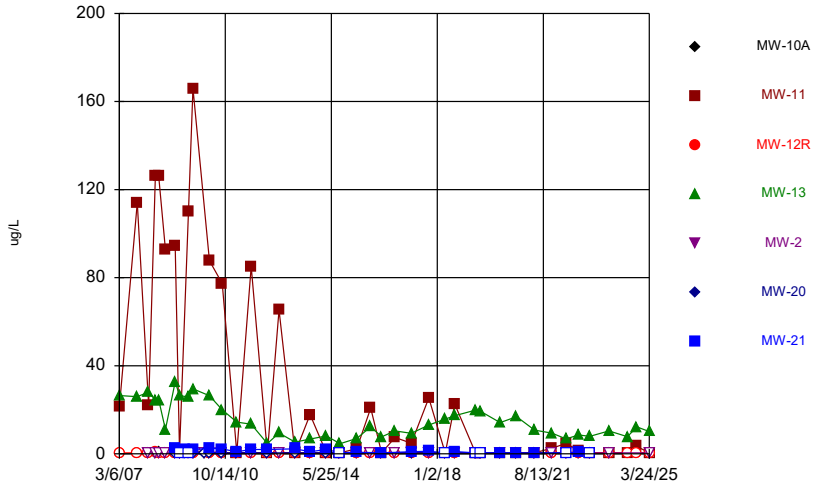
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Time Series



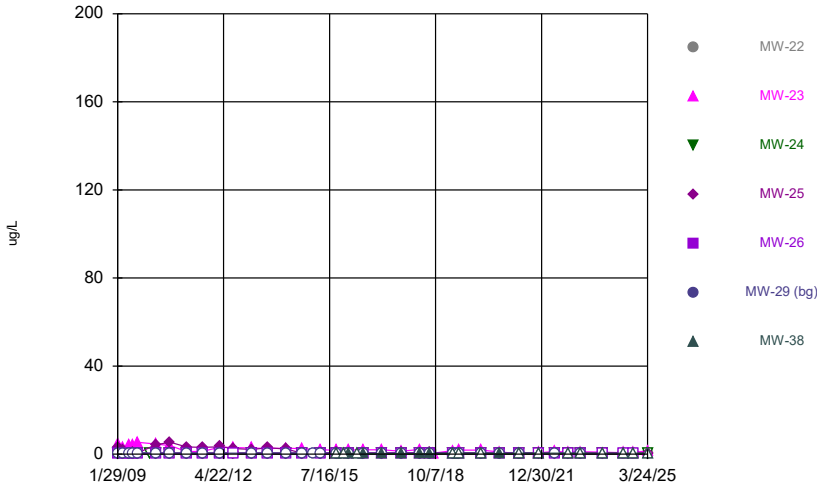
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Time Series



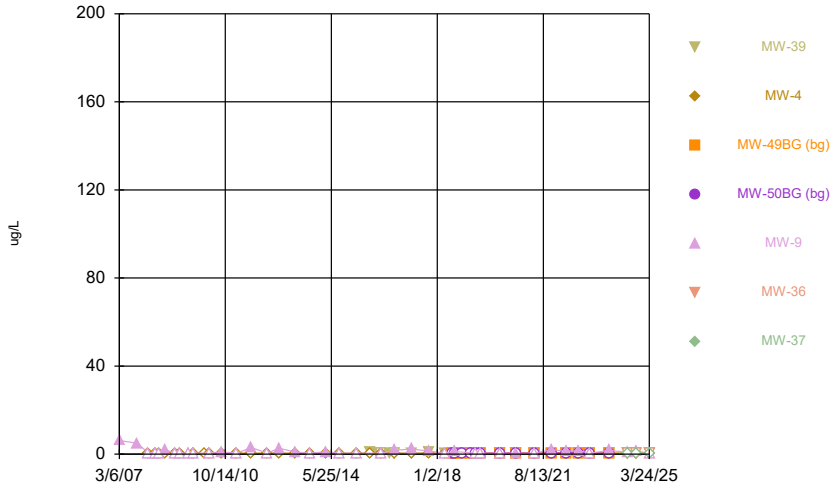
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Time Series



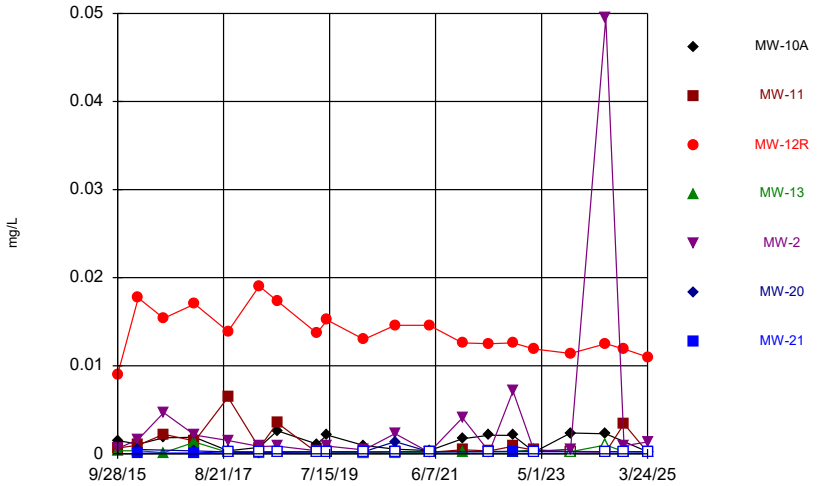
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Time Series



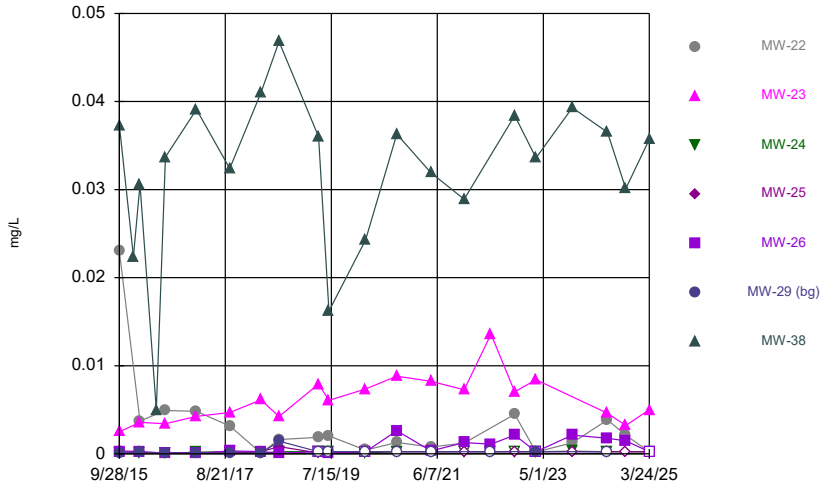
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



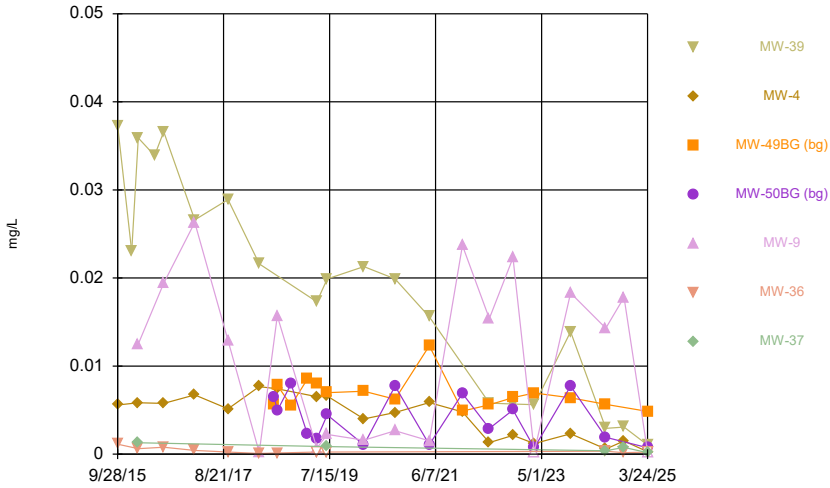
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



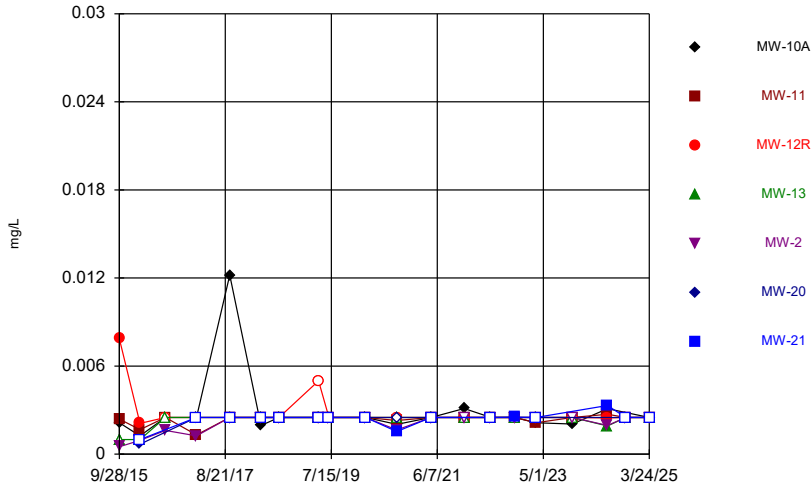
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Time Series



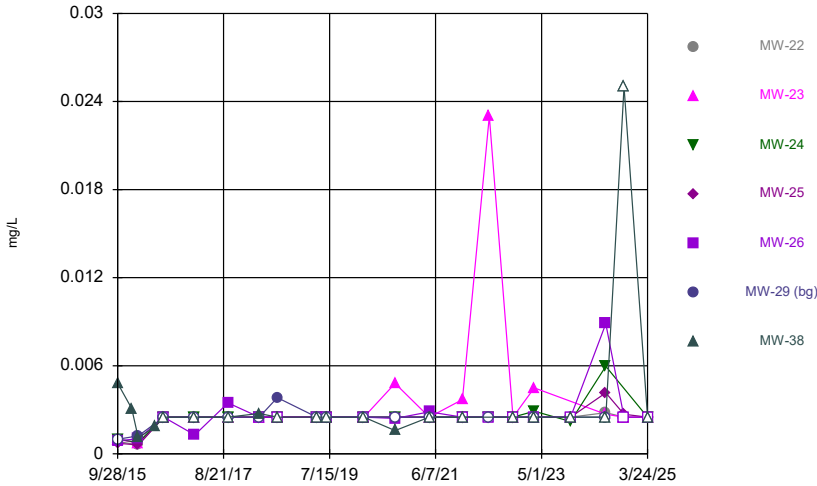
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Time Series



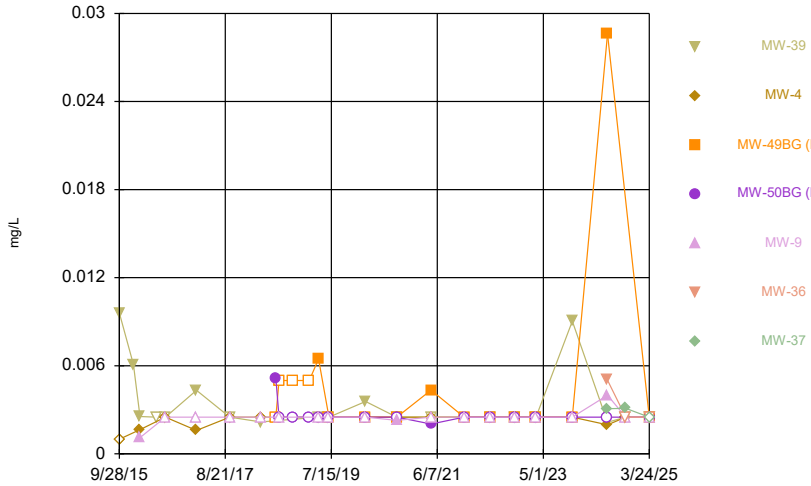
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



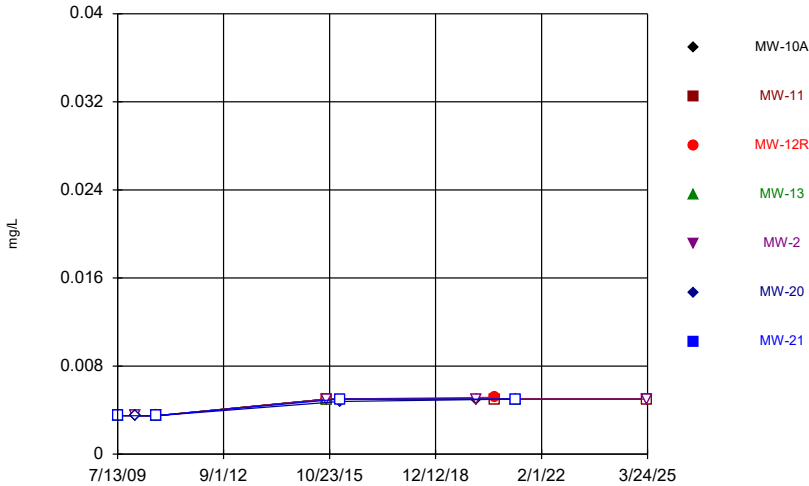
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



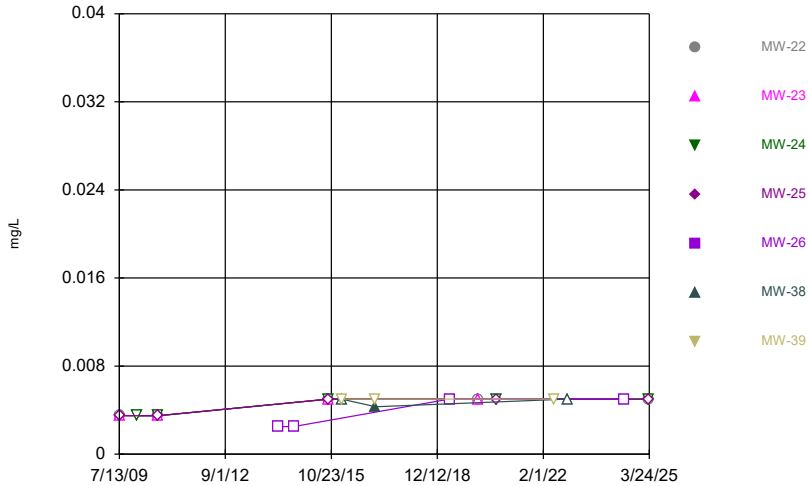
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



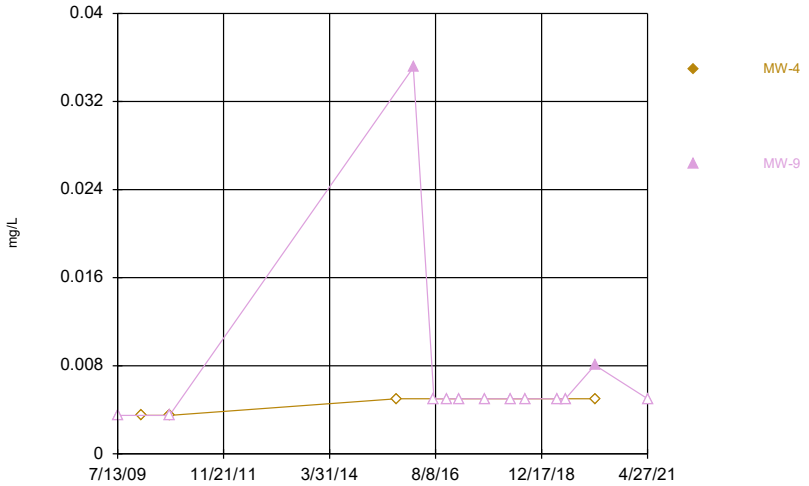
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



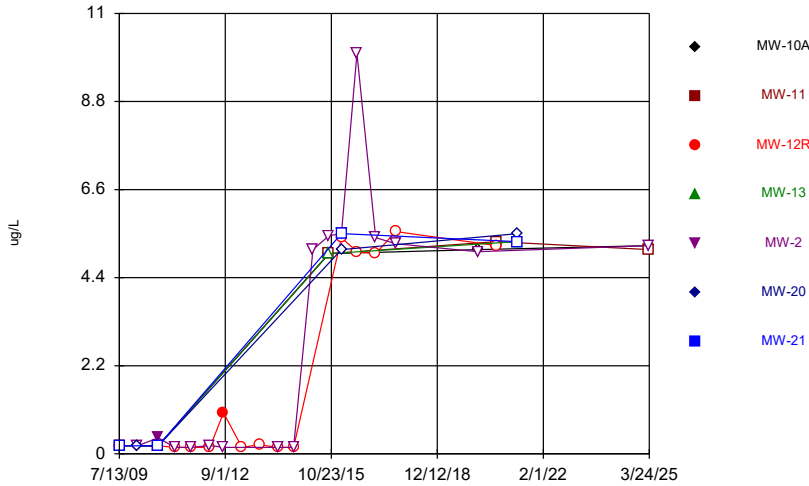
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



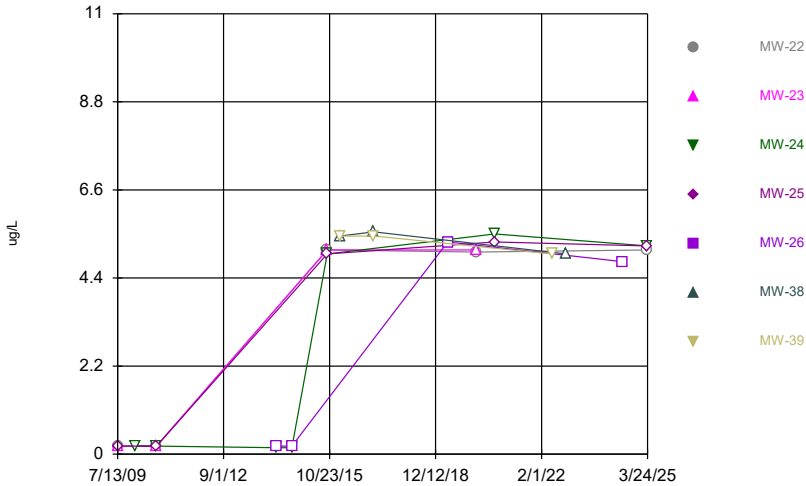
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

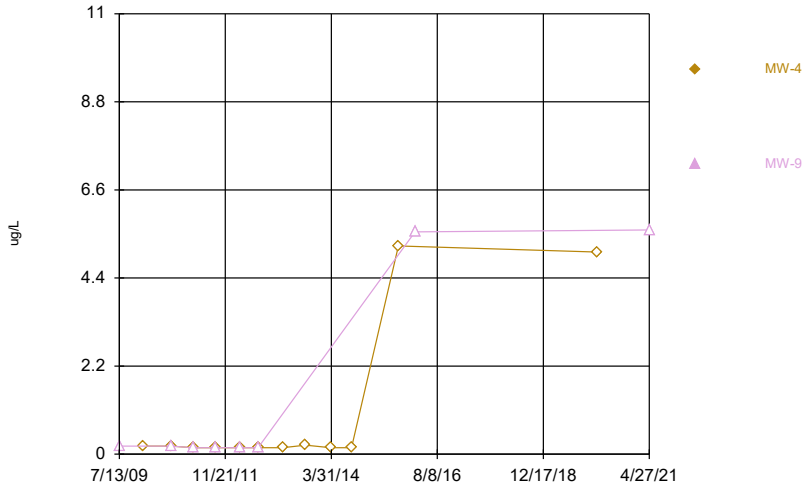


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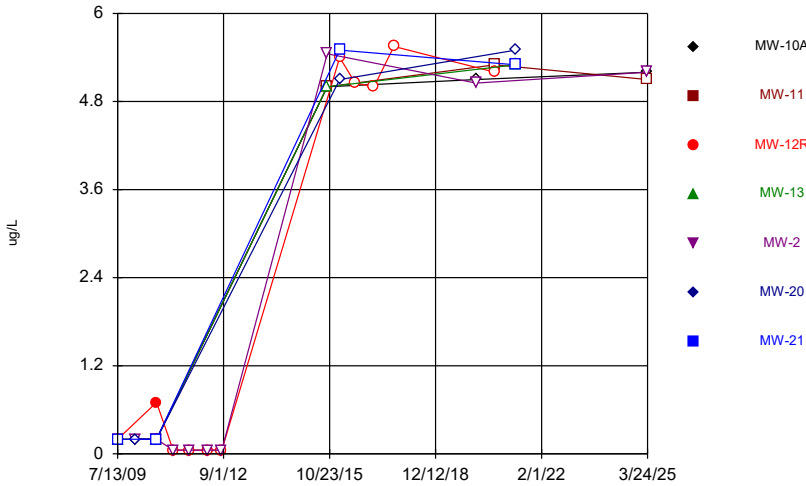
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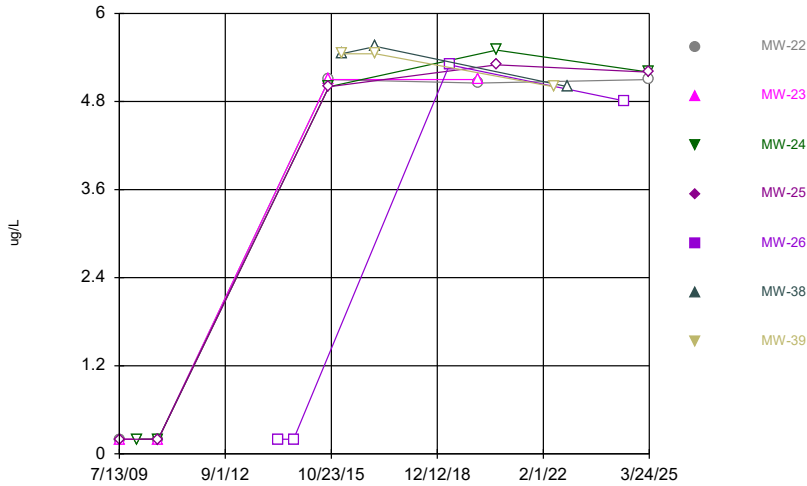
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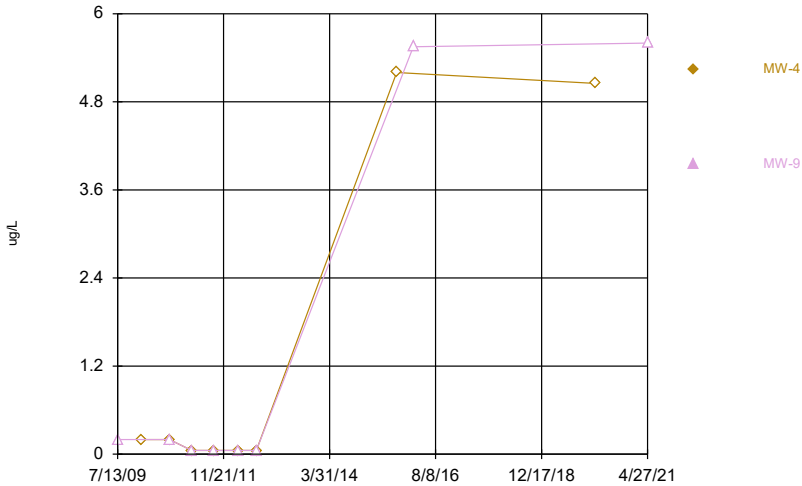
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Time Series

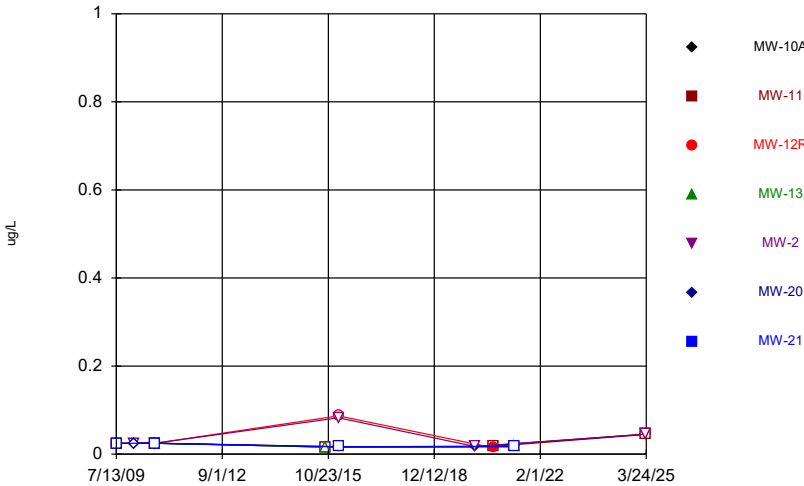


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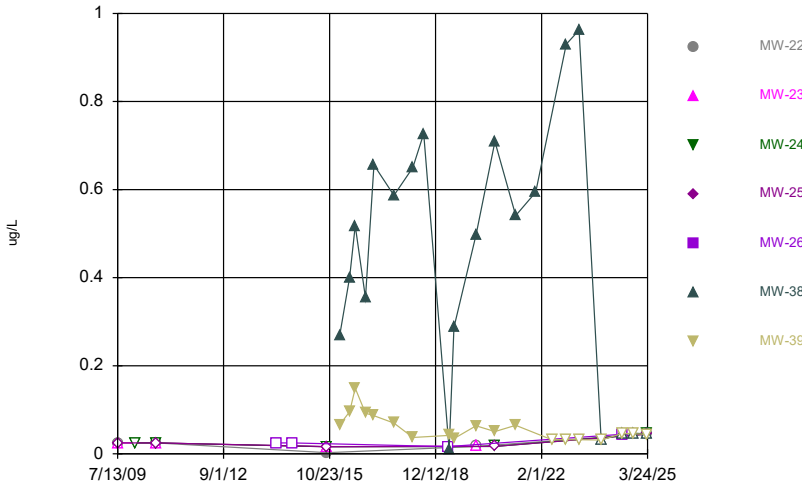
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



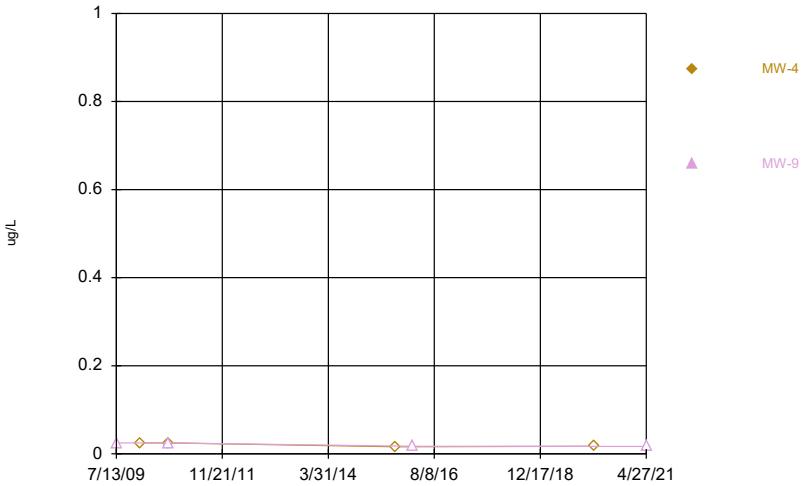
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



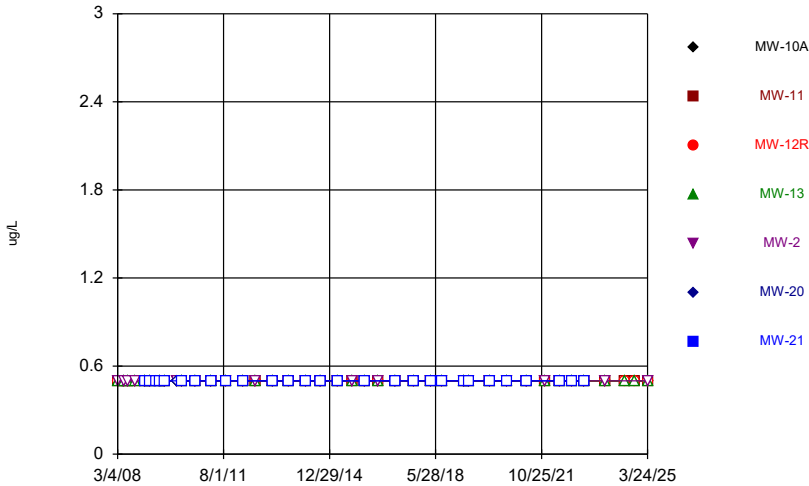
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Time Series

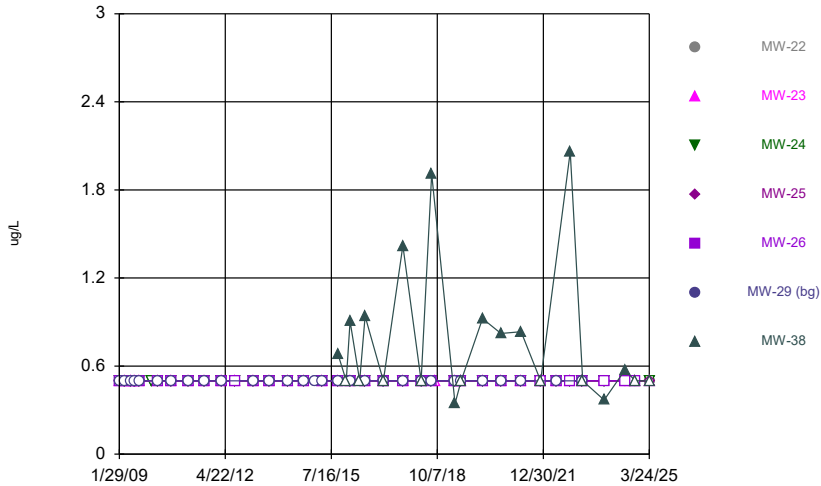


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

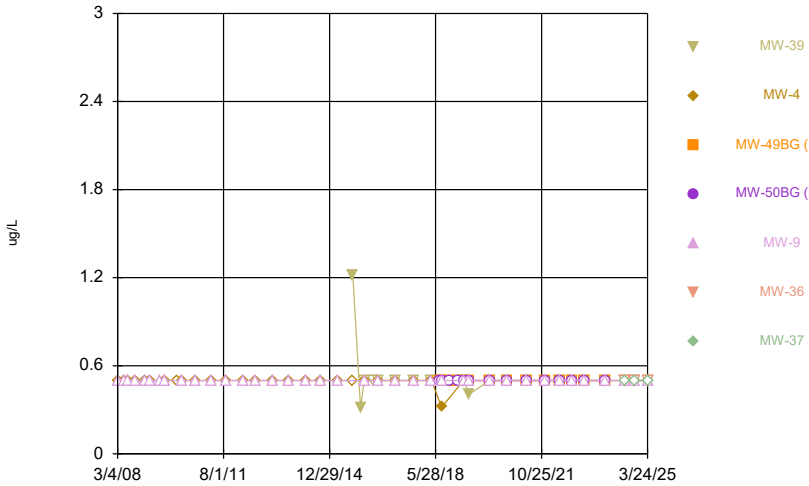
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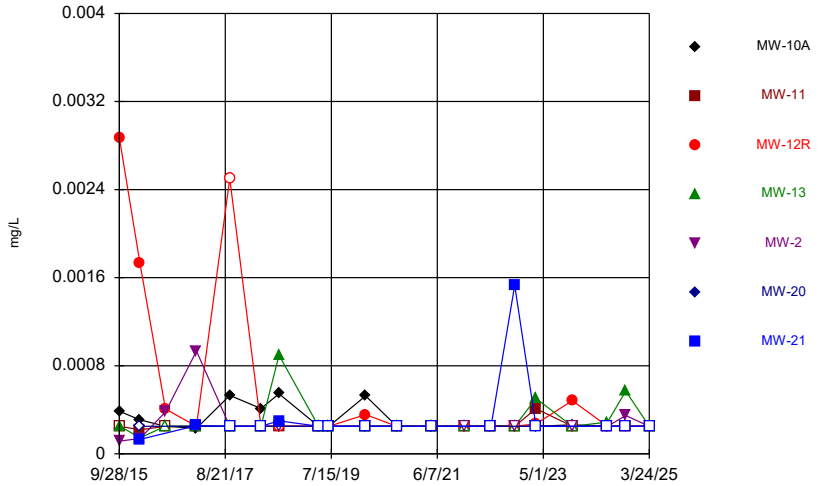
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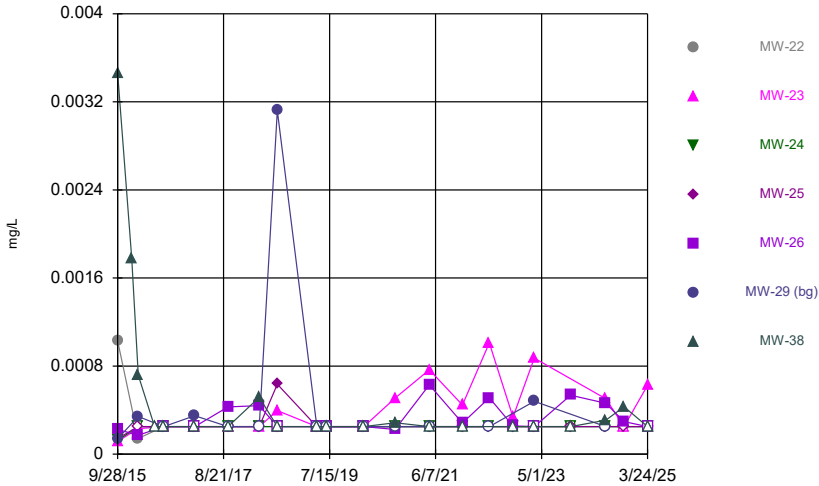
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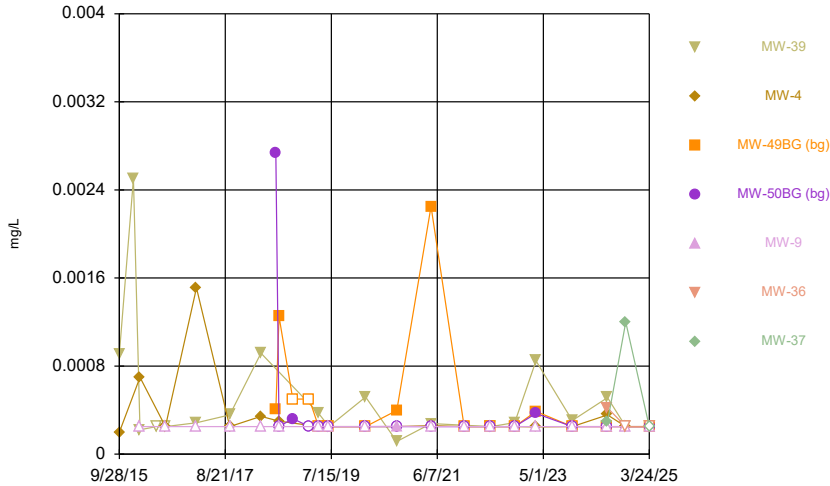
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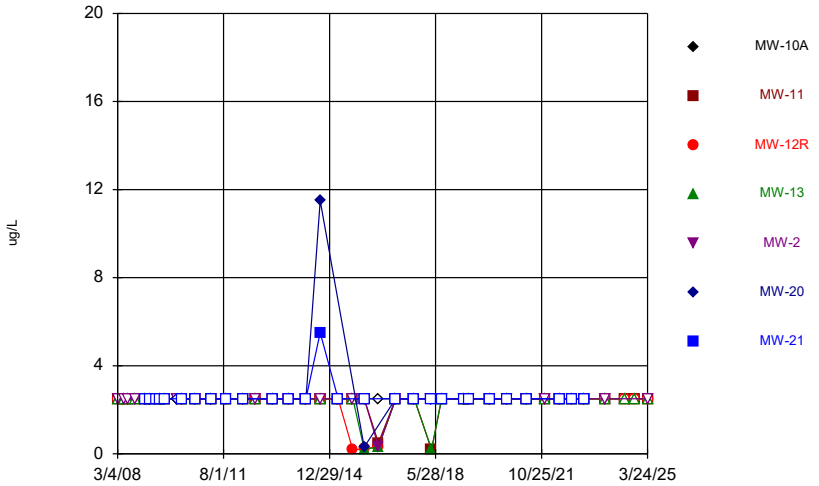
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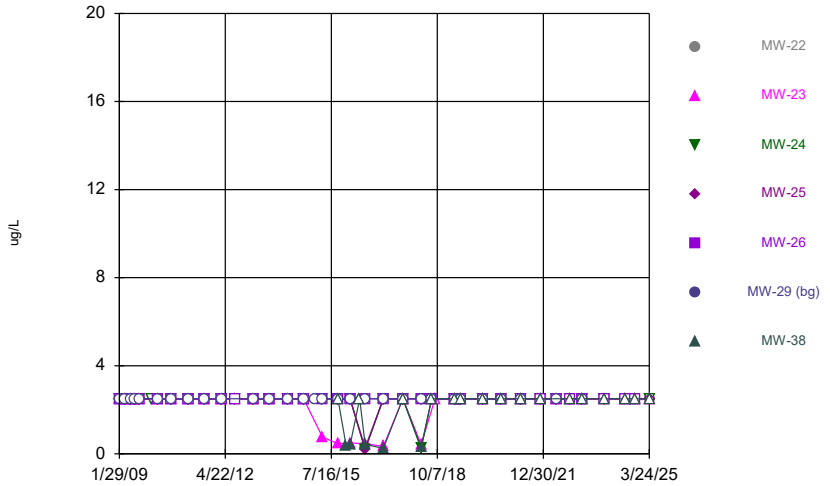
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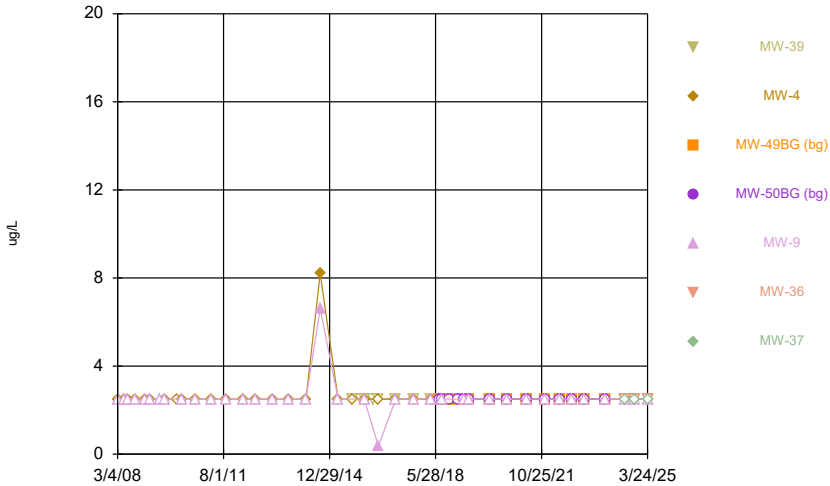
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Time Series

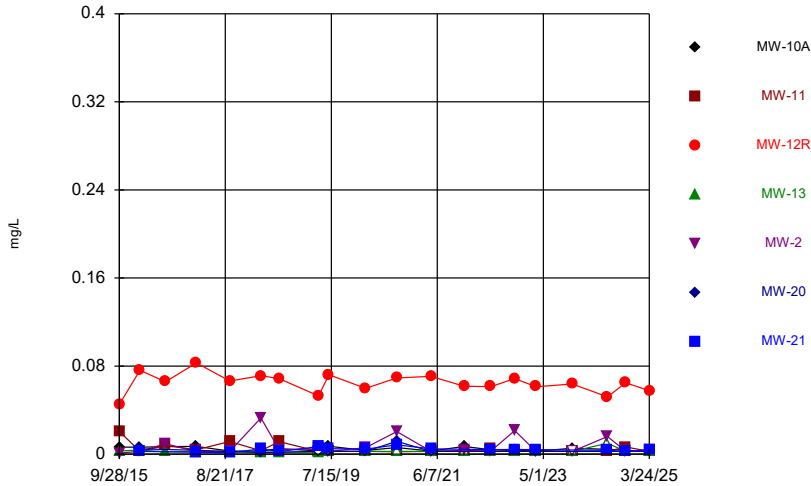


Time Series



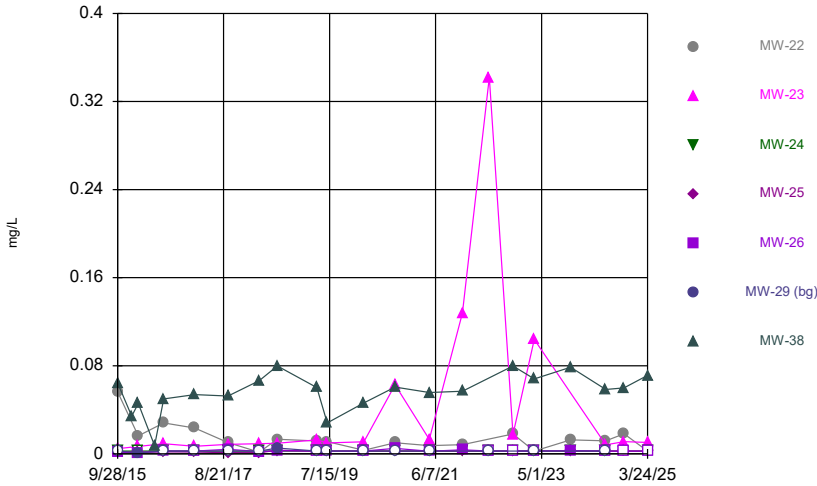
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



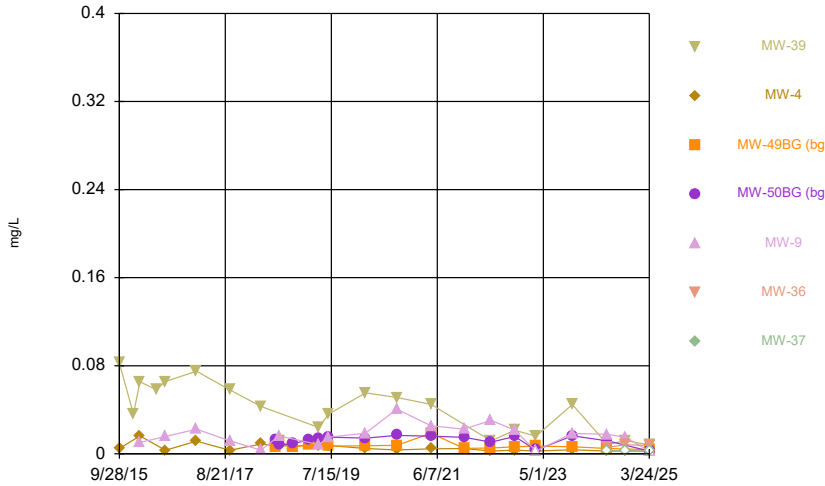
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Time Series



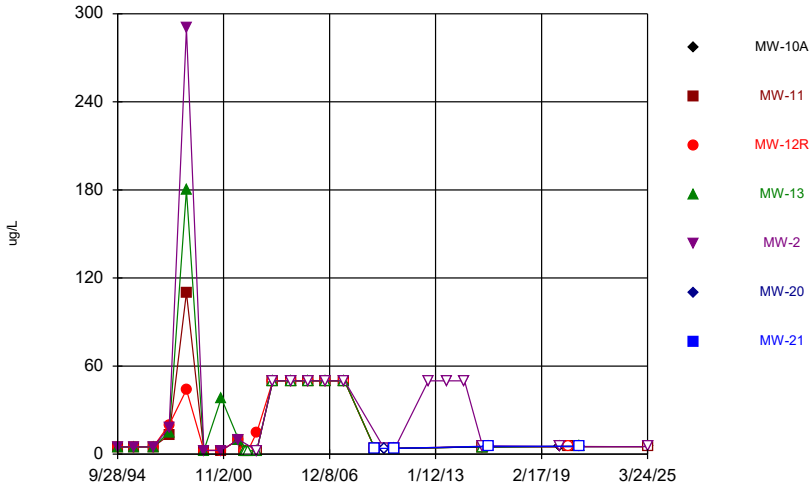
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



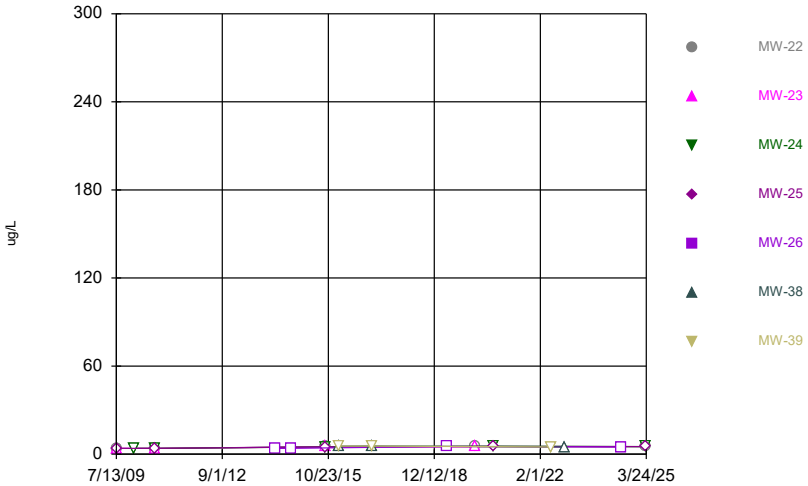
Constituent: Nickel Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



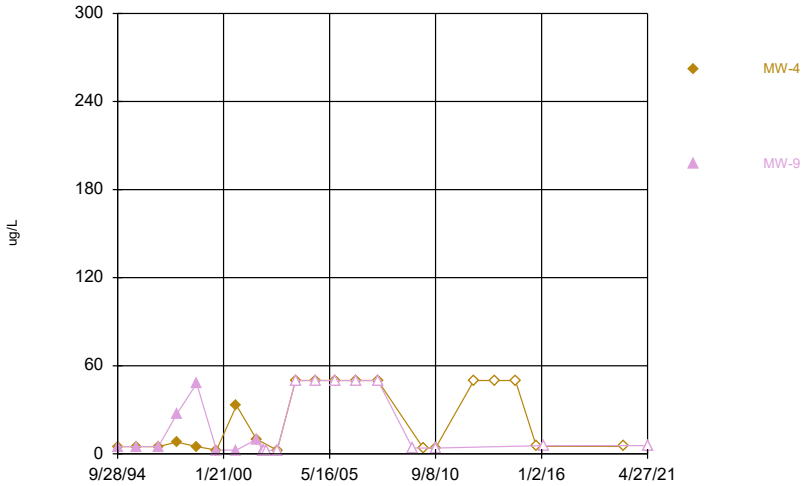
Constituent: Phenol Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



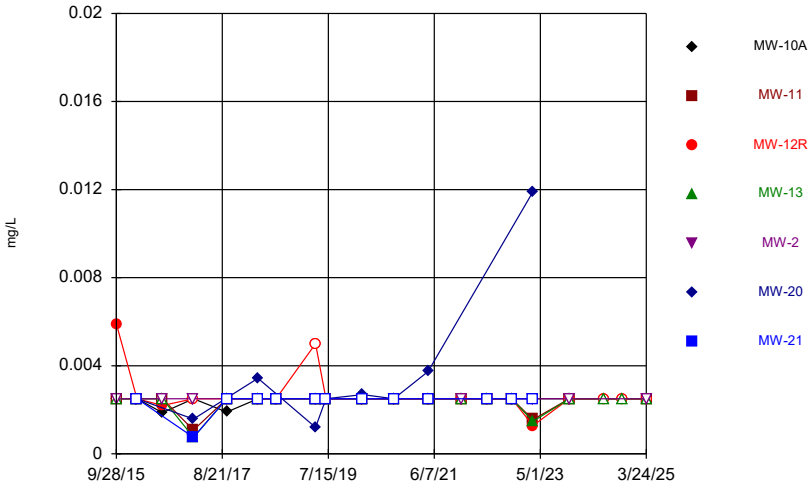
Constituent: Phenol Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



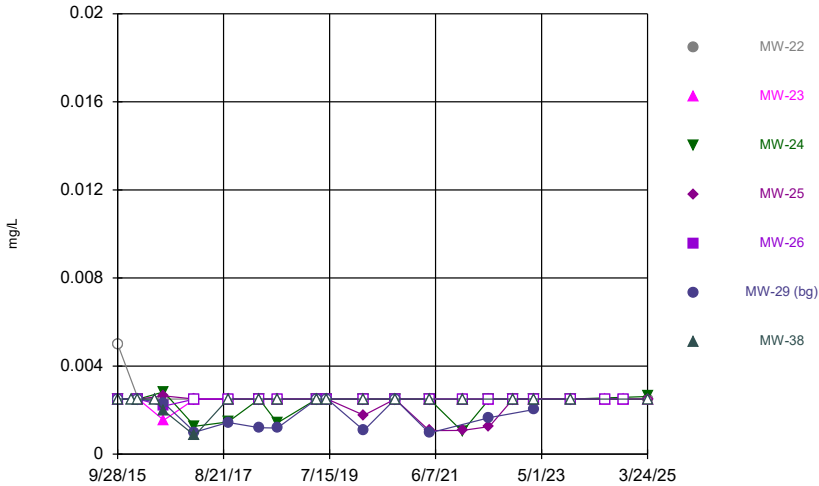
Constituent: Phenol Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

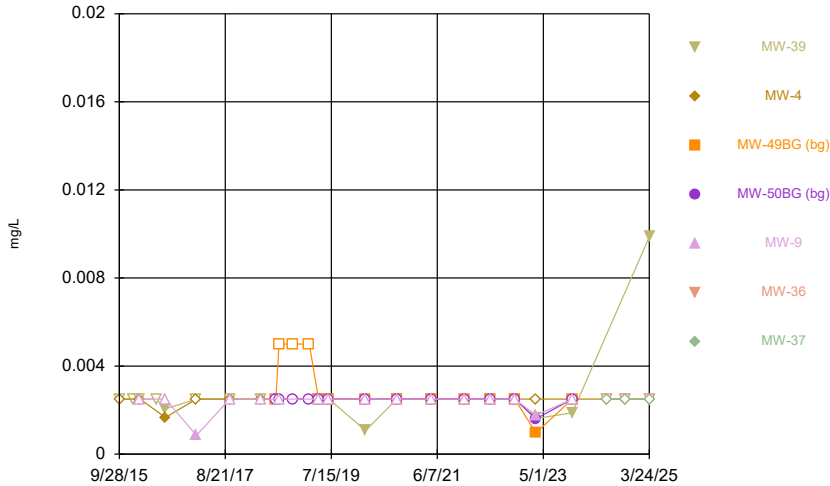


Constituent: Selenium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

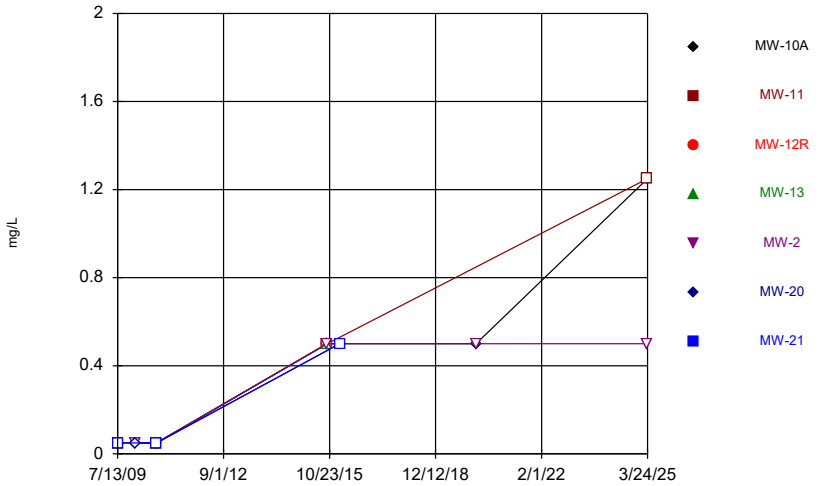
Time Series



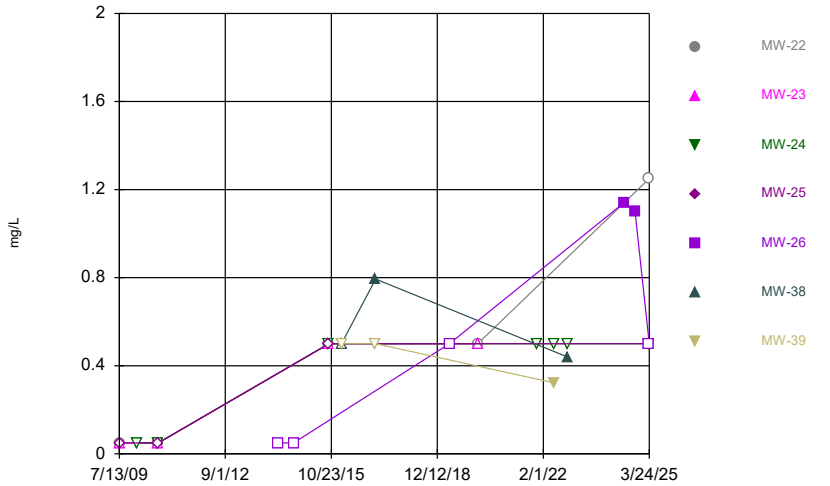
Time Series



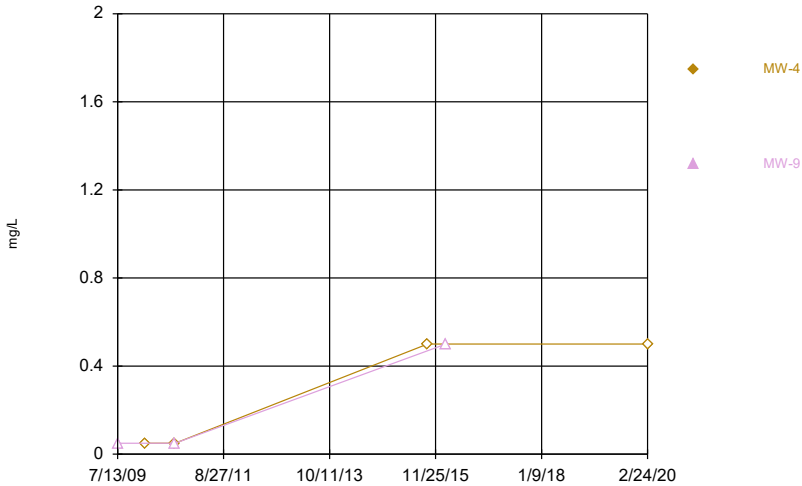
Time Series



Time Series

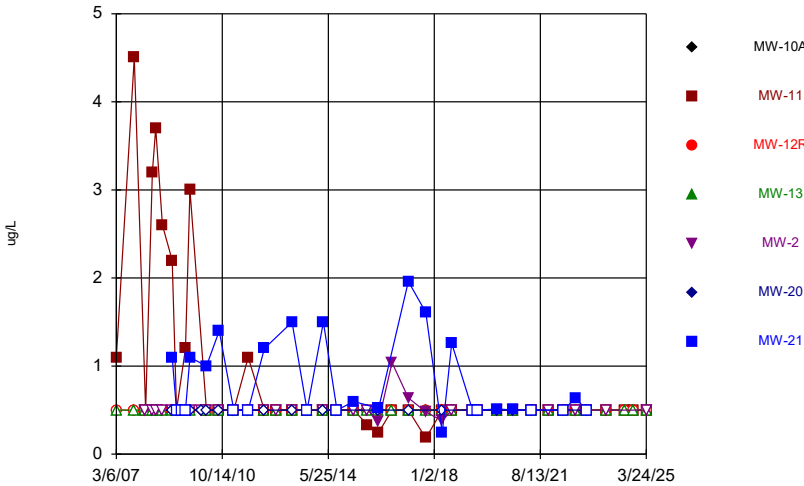


Time Series



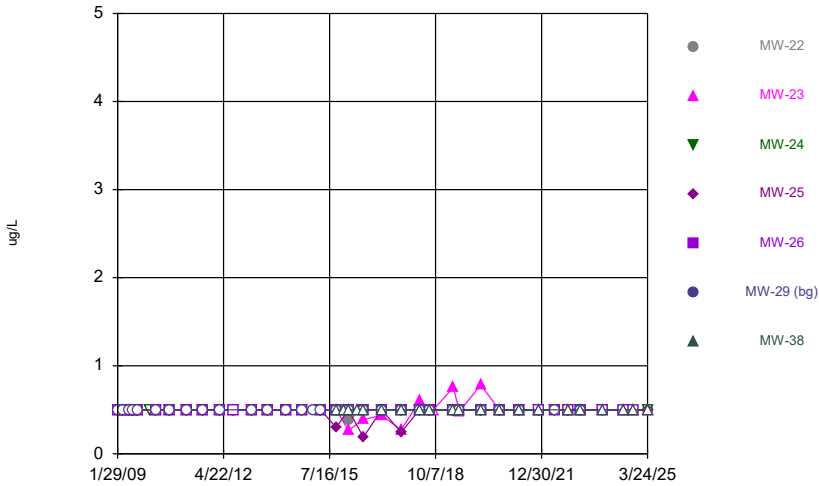
Constituent: Sulfide Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



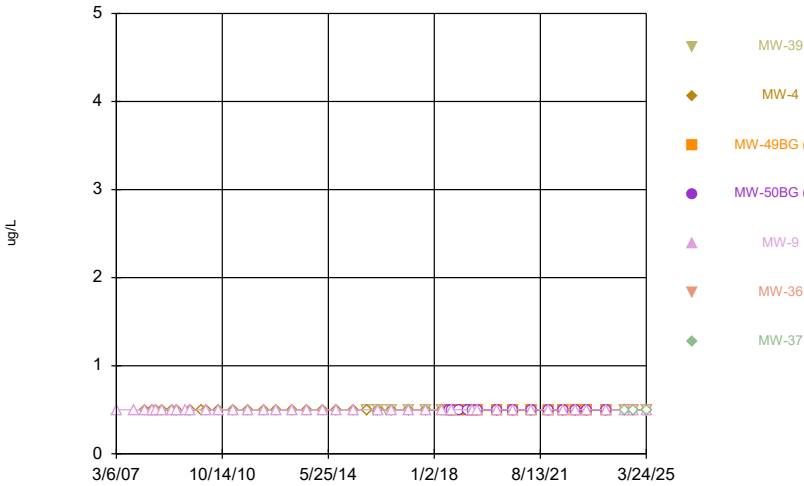
Constituent: Tetrachloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



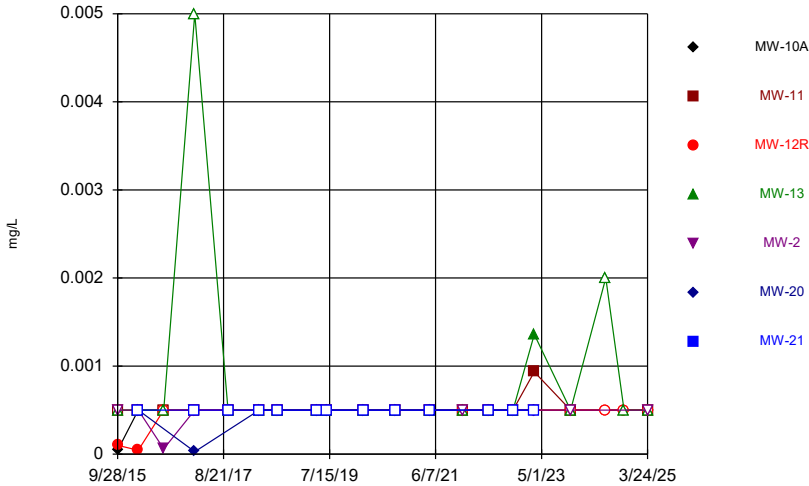
Constituent: Tetrachloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



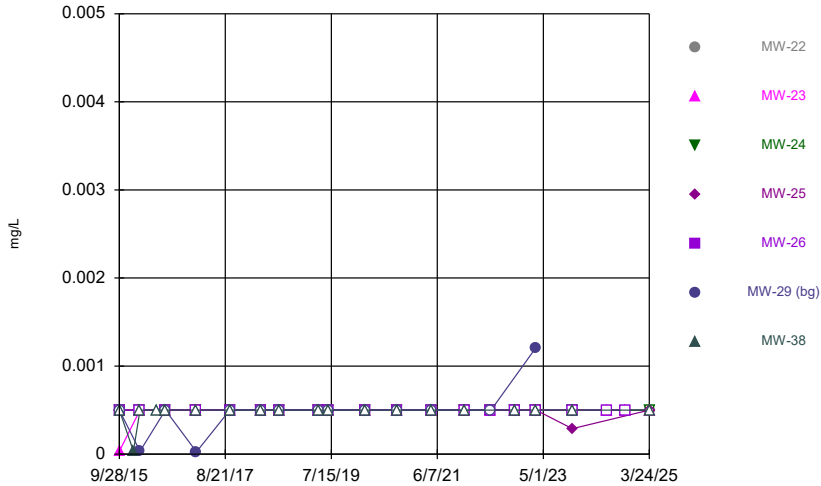
Constituent: Tetrachloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



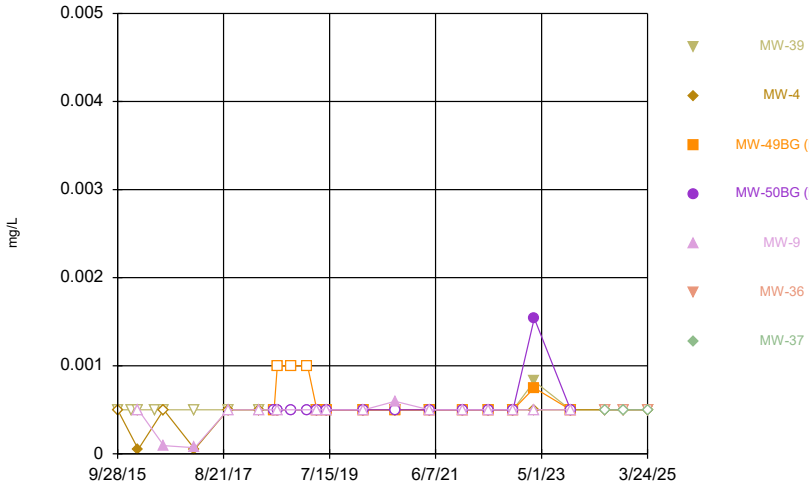
Constituent: Thallium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



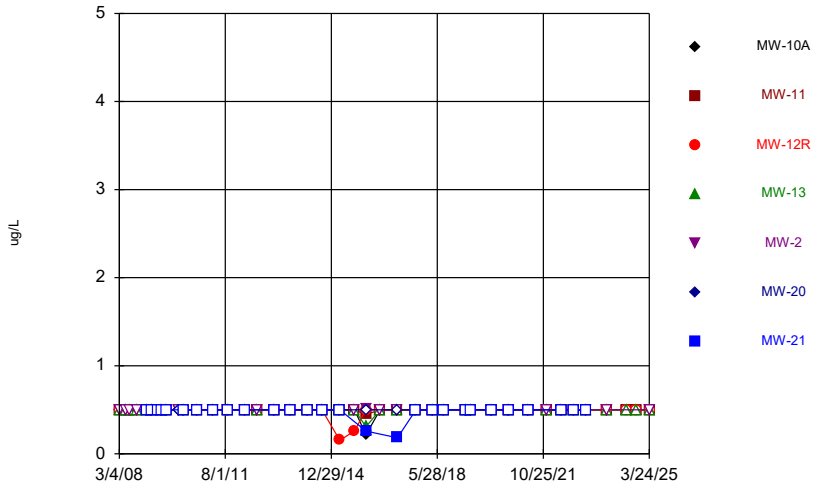
Constituent: Thallium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



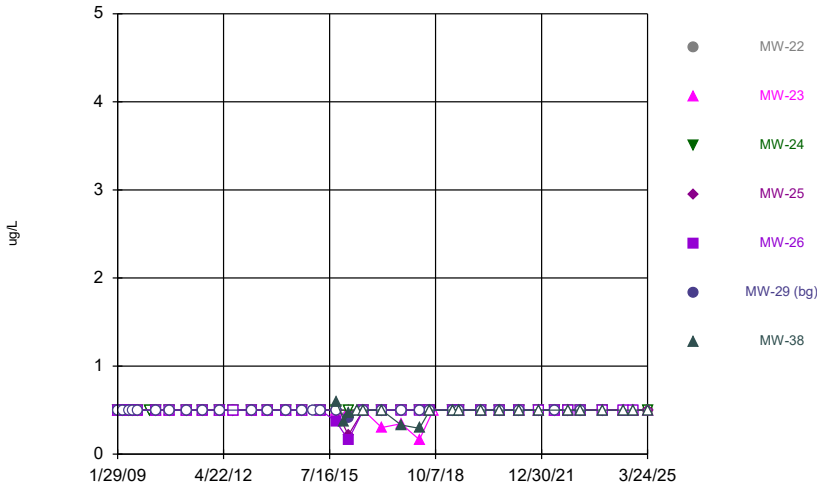
Constituent: Thallium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



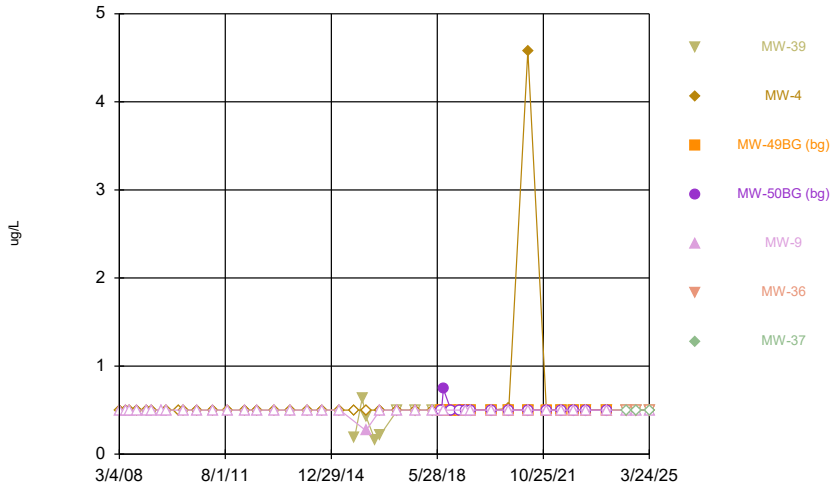
Constituent: Toluene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



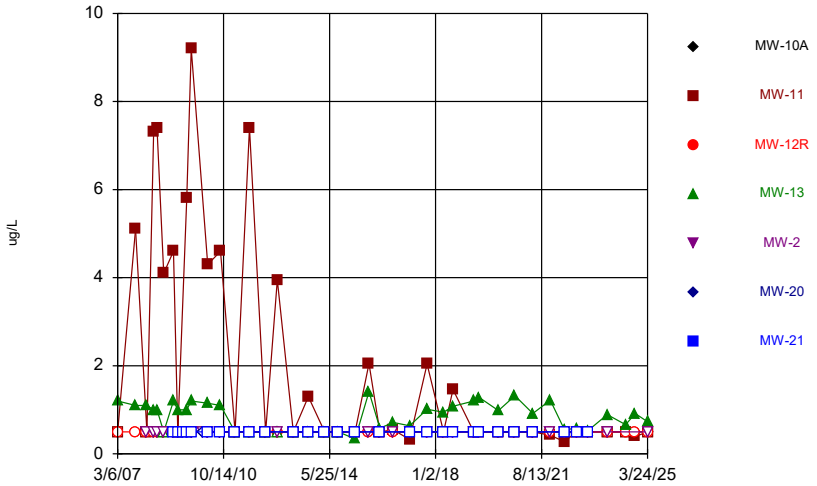
Constituent: Toluene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



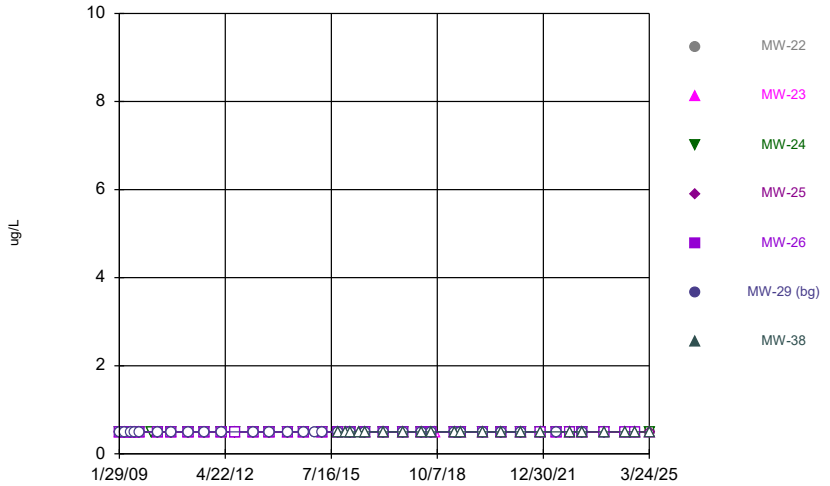
Constituent: Toluene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



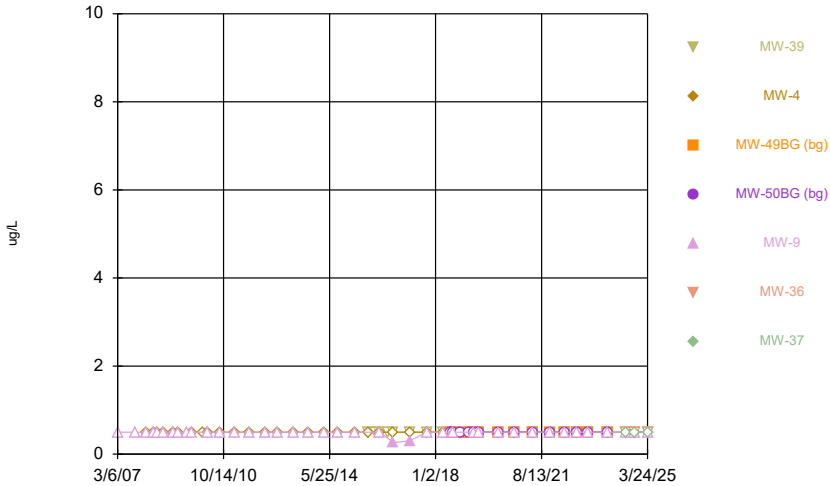
Constituent: trans-1,2-Dichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



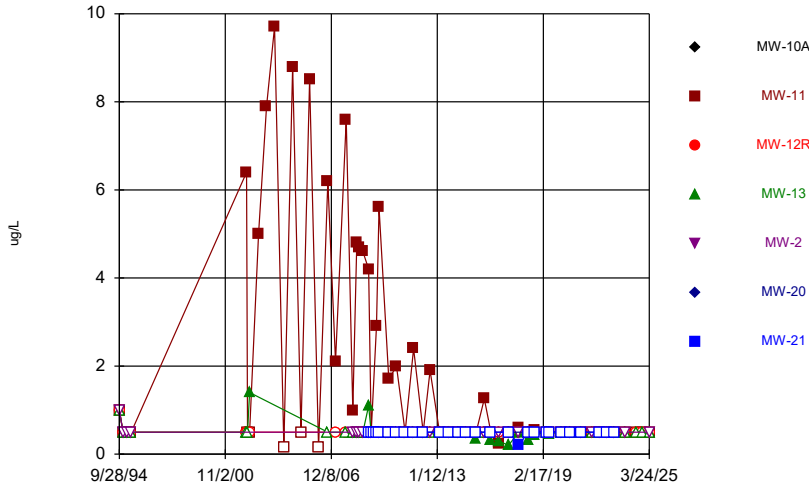
Constituent: trans-1,2-Dichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



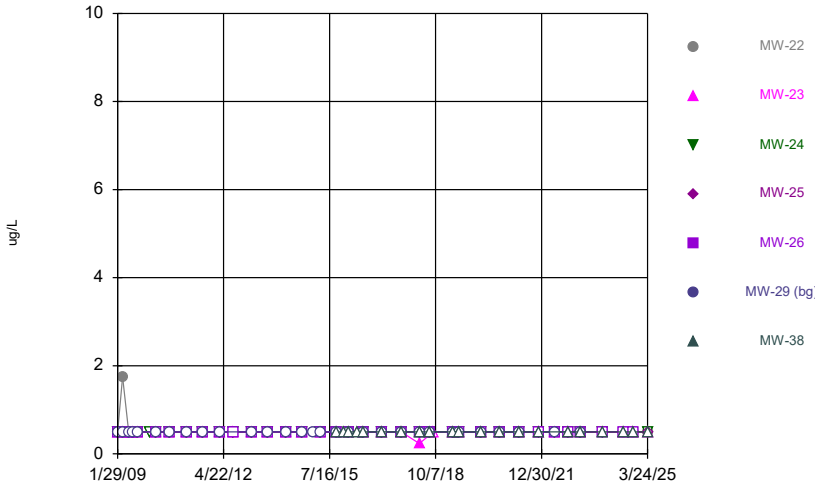
Constituent: trans-1,2-Dichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



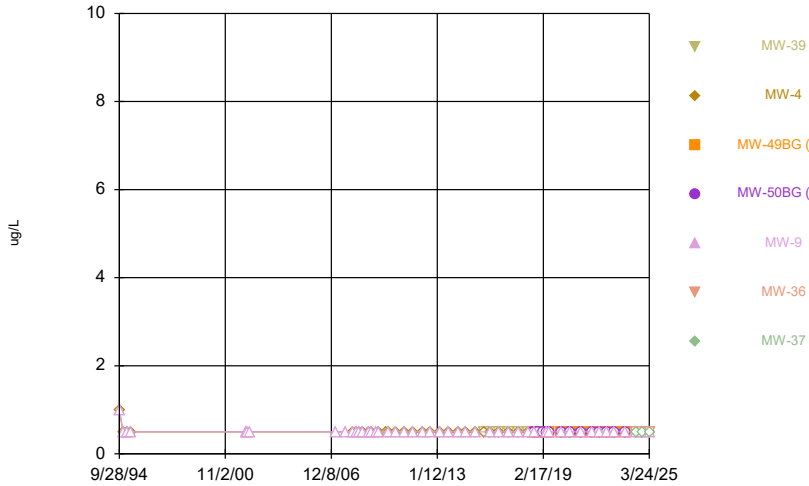
Constituent: Trichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



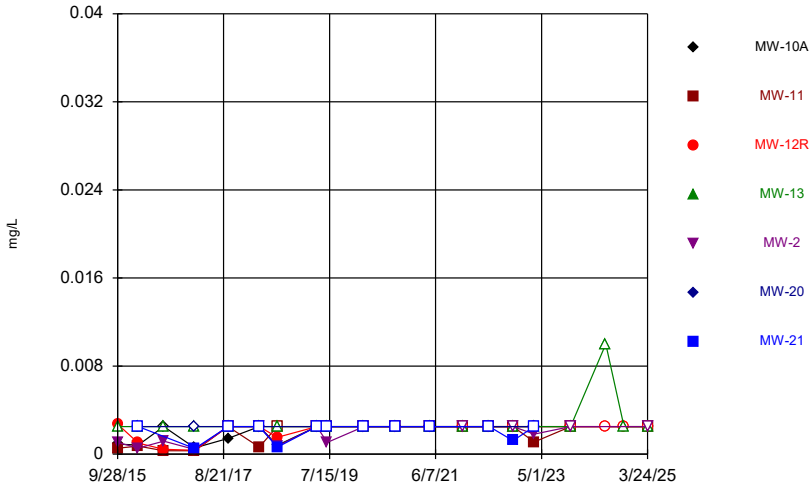
Constituent: Trichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



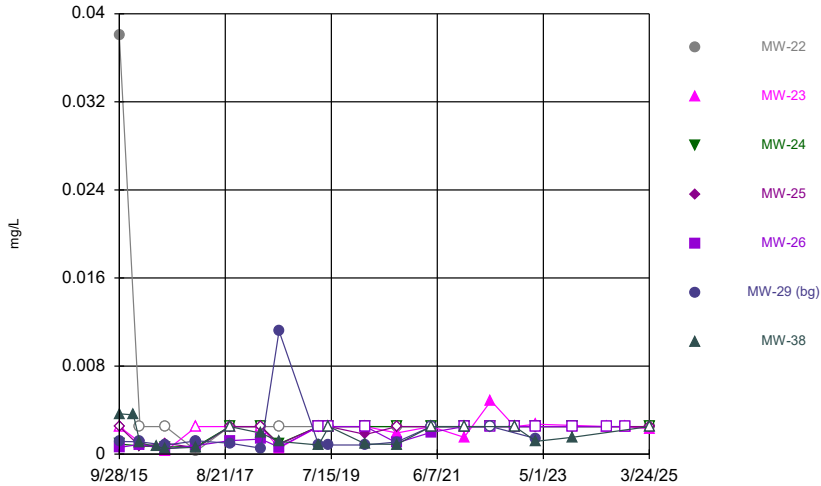
Constituent: Trichloroethene Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



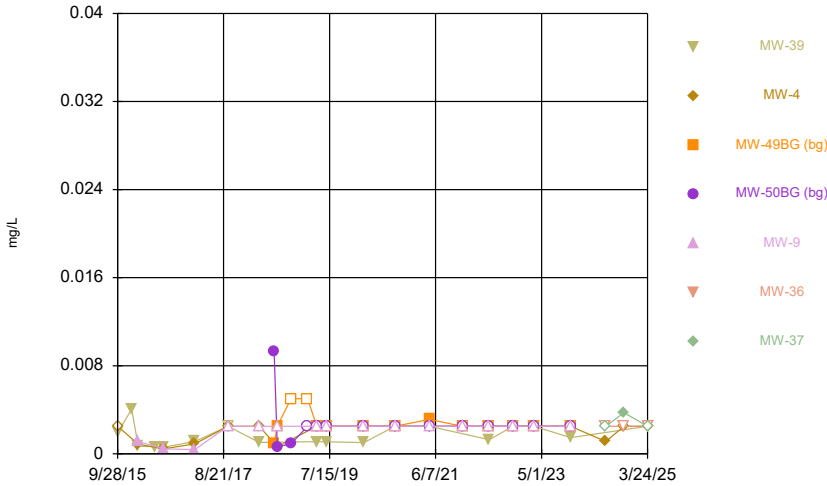
Constituent: Vanadium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



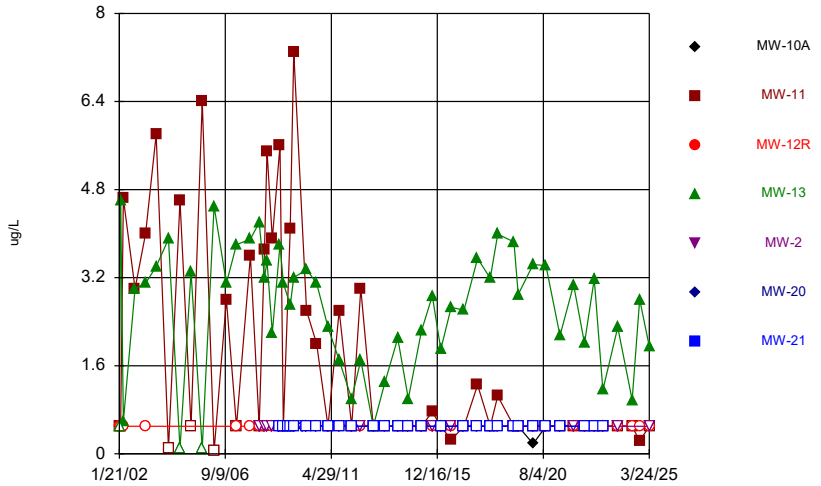
Constituent: Vanadium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



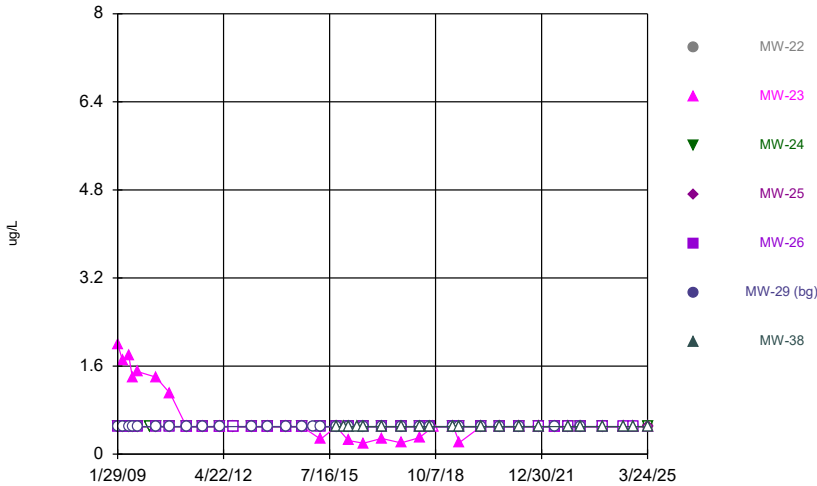
Constituent: Vanadium Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



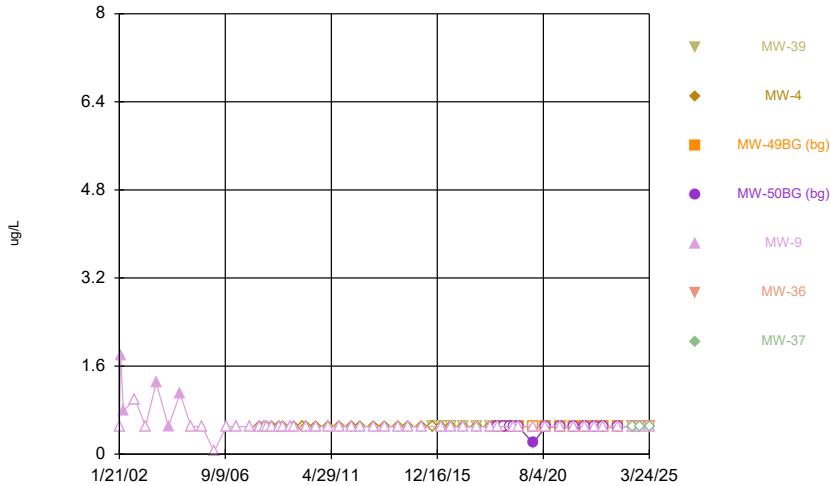
Constituent: Vinyl Chloride Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



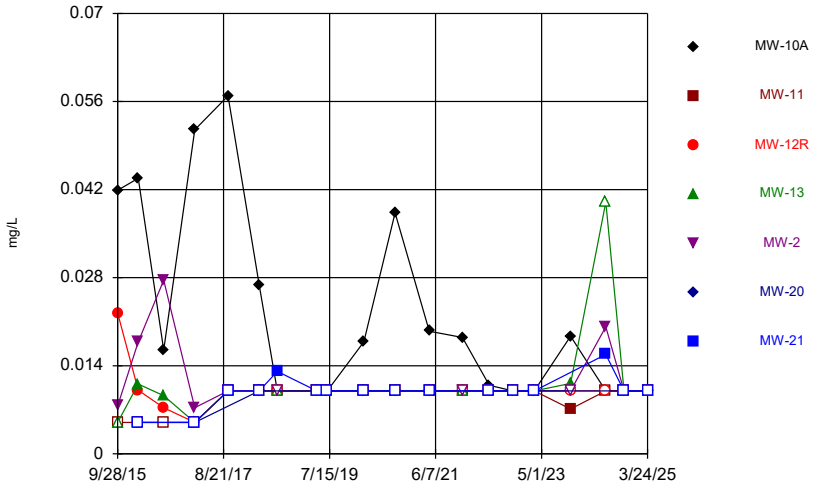
Constituent: Vinyl Chloride Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



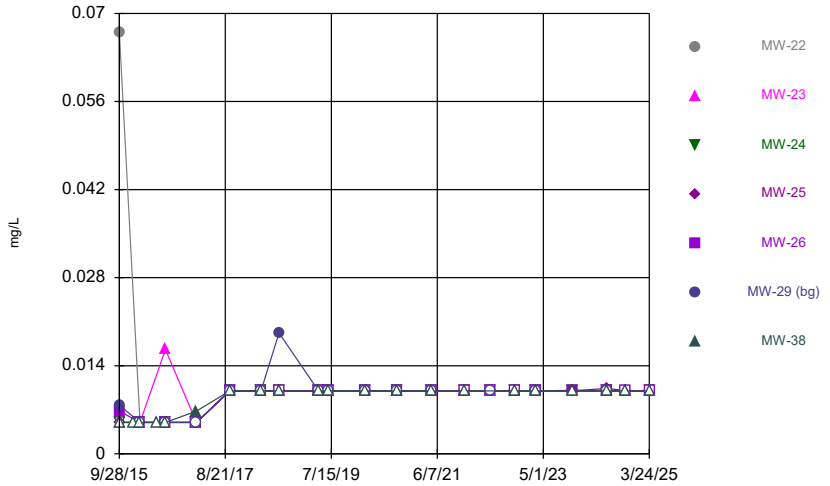
Constituent: Vinyl Chloride Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



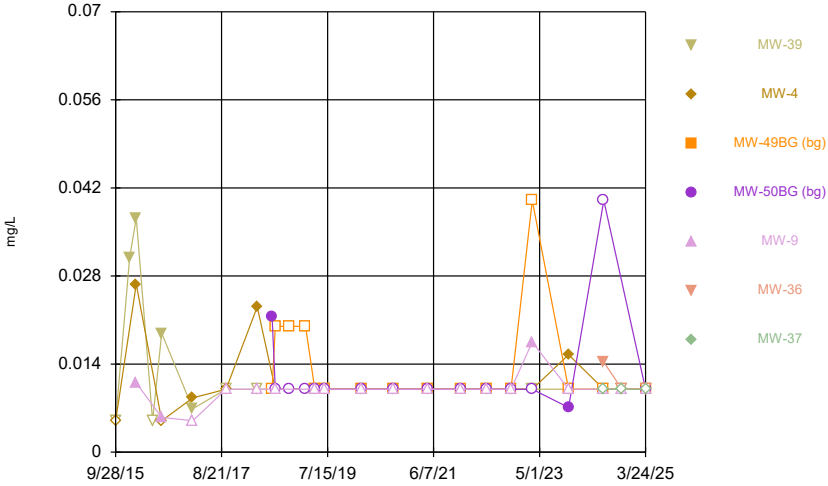
Constituent: Zinc Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



Constituent: Zinc Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



Constituent: Zinc Analysis Run 5/1/2025 4:15 PM View: 2025_SSN-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

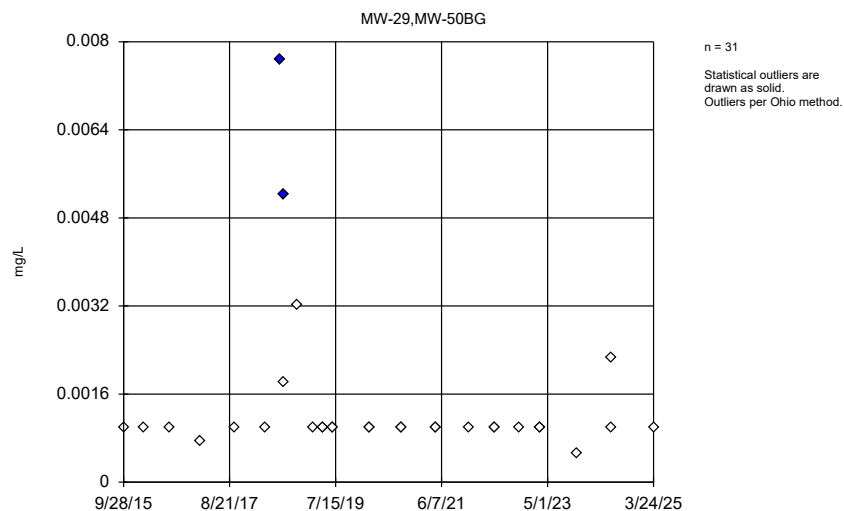
Outlier Tests Summary Table and Graphs

WaterTable BG Outlier Analysis

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 5/2/2025, 10:10 AM

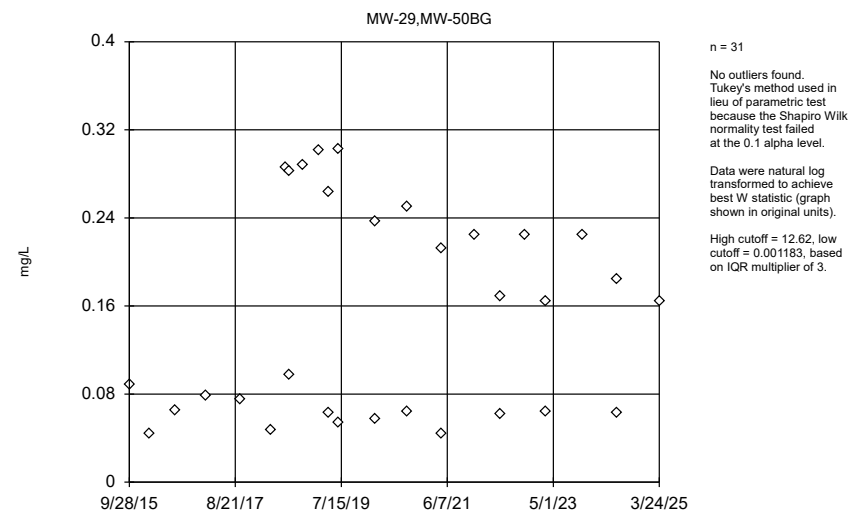
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-29,MW-50BG	Yes	0.00768,0.00522	n/a w/combined bg	OH	NaN	31	0.001467	0.00145	n/a	n/a
Barium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	31	0.1532	0.0943	unknown	ShapiroWilk
Cadmium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	OH	NaN	31	0.0001538	0.0000899	n/a	n/a
Chromium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	31	0.002479	0.001283	unknown	ShapiroWilk
Cobalt (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	31	0.002182	0.002715	unknown	ShapiroWilk
Copper (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	OH	NaN	31	0.002524	0.000656	n/a	n/a
Lead (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	31	0.0004389	0.0006679	unknown	ShapiroWilk
Nickel (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	31	0.007542	0.005818	unknown	ShapiroWilk

Ohio EPA 0715 Outlier Algorithm, Pooled Background



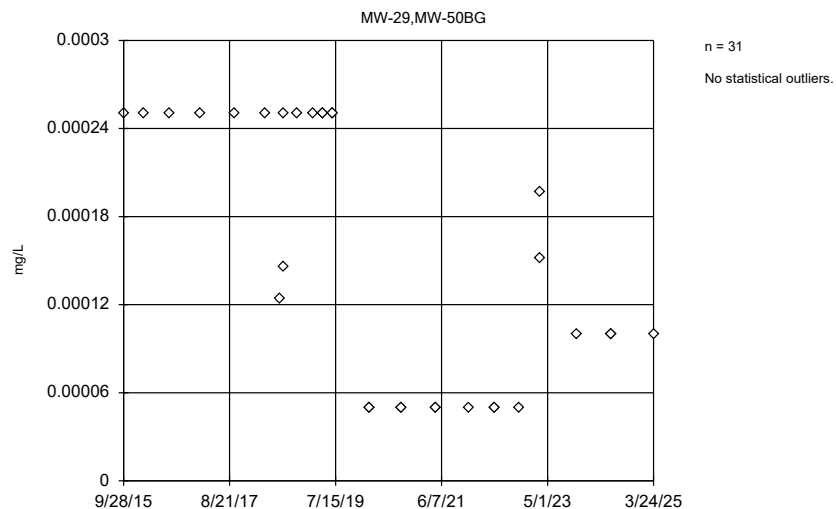
Constituent: Arsenic Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



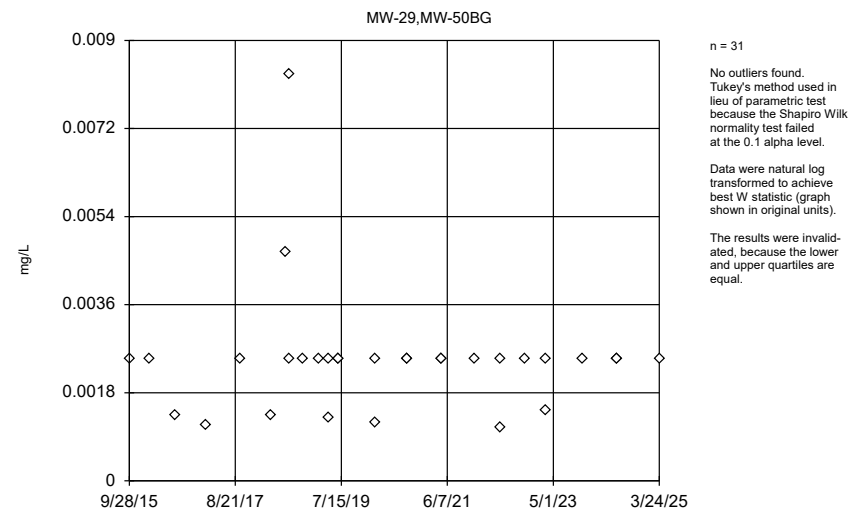
Constituent: Barium Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



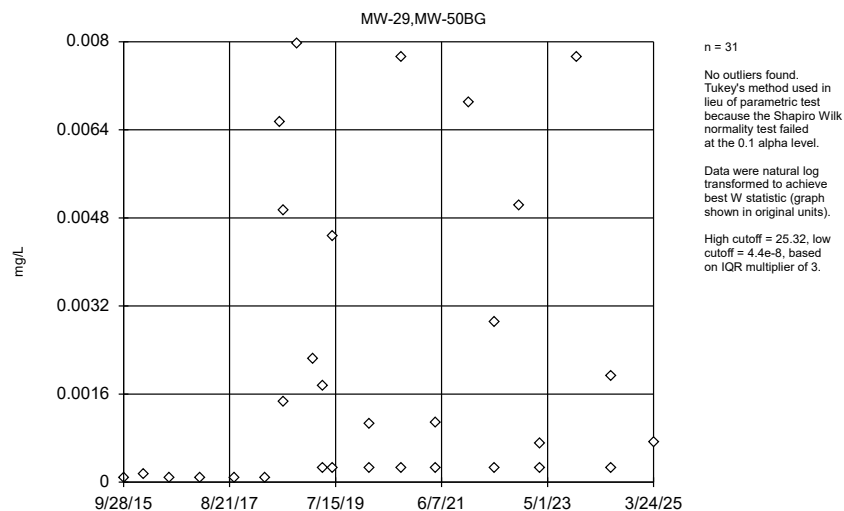
Constituent: Cadmium Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



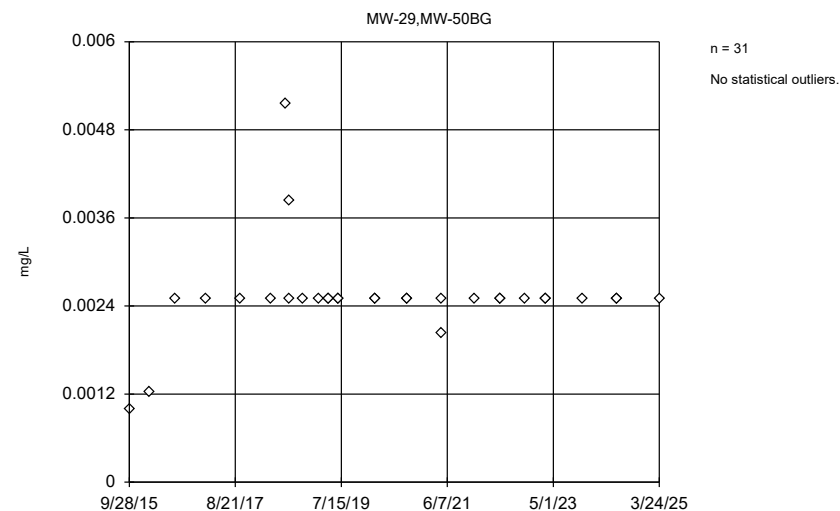
Constituent: Chromium Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



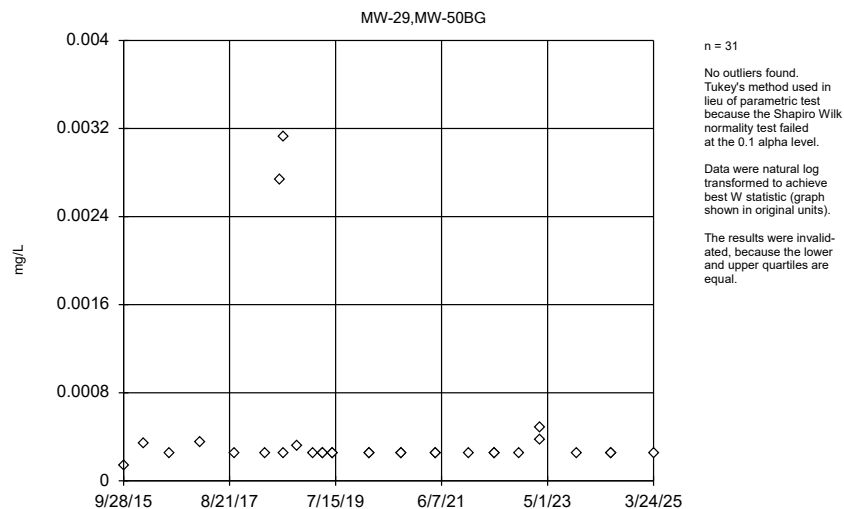
Constituent: Cobalt Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



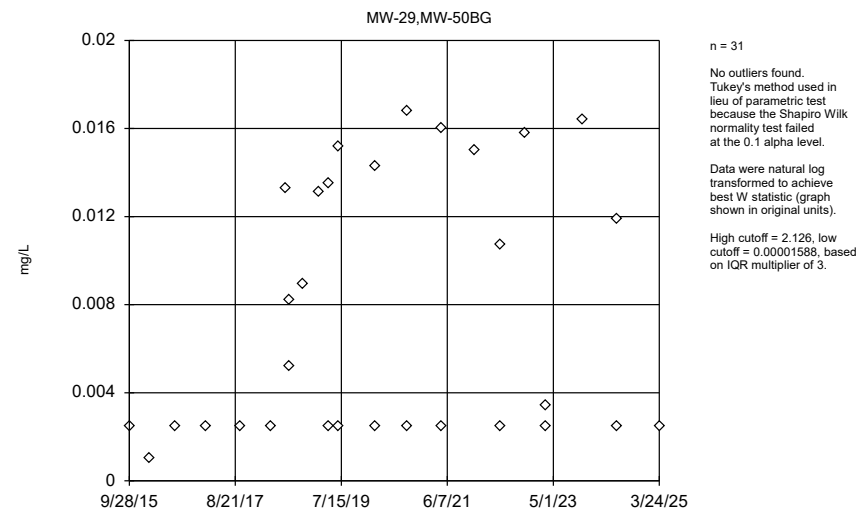
Constituent: Copper Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



Constituent: Lead Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



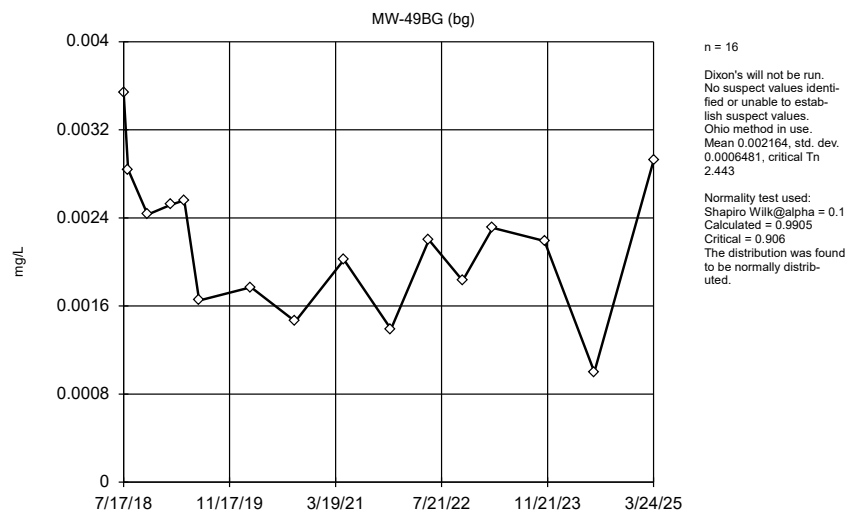
Constituent: Nickel Analysis Run 5/2/2025 10:07 AM View: 2025_SSN-BG_Outliers_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Bedrock BG Outlier Analysis

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 5/1/2025, 5:15 PM

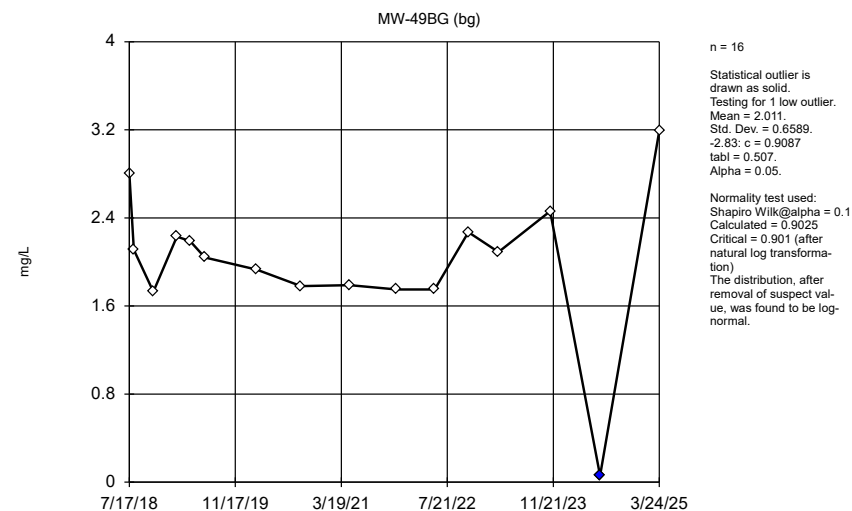
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-49BG (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.002164	0.0006481	normal	ShapiroWilk
Barium (mg/L)	MW-49BG (bg)	Yes	0.059	6/24/2024	Dixon/OH	0.05	16	2.011	0.6589	ln(x)	ShapiroWilk
Cadmium (mg/L)	MW-49BG (bg)	Yes	0.0005,0.0005,0.0005	8/7/2018,11/5/2018,2/21/2019	OH	NaN	16	0.0001929	0.0001708	n/a	n/a
Chromium (mg/L)	MW-49BG (bg)	No	n/a	n/a	OH	NaN	16	0.002826	0.001152	n/a	n/a
Cobalt (mg/L)	MW-49BG (bg)	Yes	0.0123	4/27/2021	Dixon/OH	0.05	16	0.006816	0.001817	normal	ShapiroWilk
Copper (mg/L)	MW-49BG (bg)	Yes	0.0286	6/24/2024	OH	NaN	16	0.004963	0.00644	n/a	n/a
Lead (mg/L)	MW-49BG (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	16	0.0004961	0.0005304	unknown	ShapiroWilk
Nickel (mg/L)	MW-49BG (bg)	Yes	0.0186	4/27/2021	Dixon/OH	0.05	16	0.007586	0.003492	normal	ShapiroWilk

EPA Screening (suspected outliers for Dixon's Test)



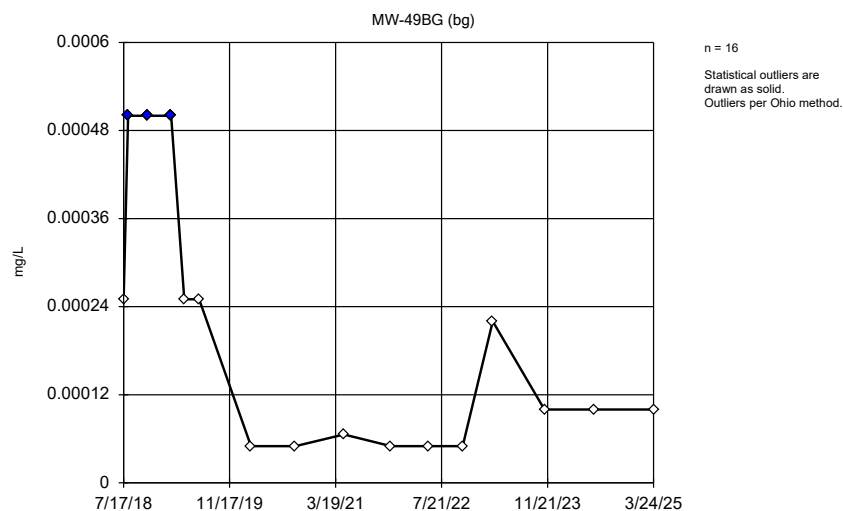
Constituent: Arsenic Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



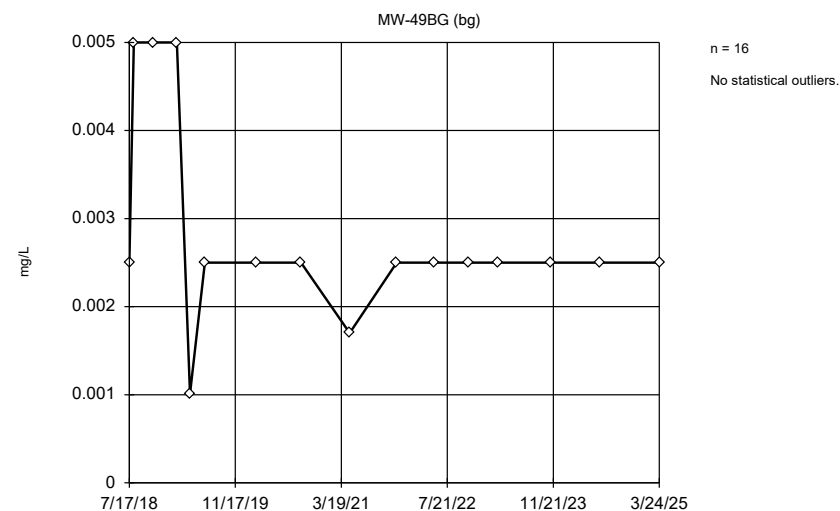
Constituent: Barium Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



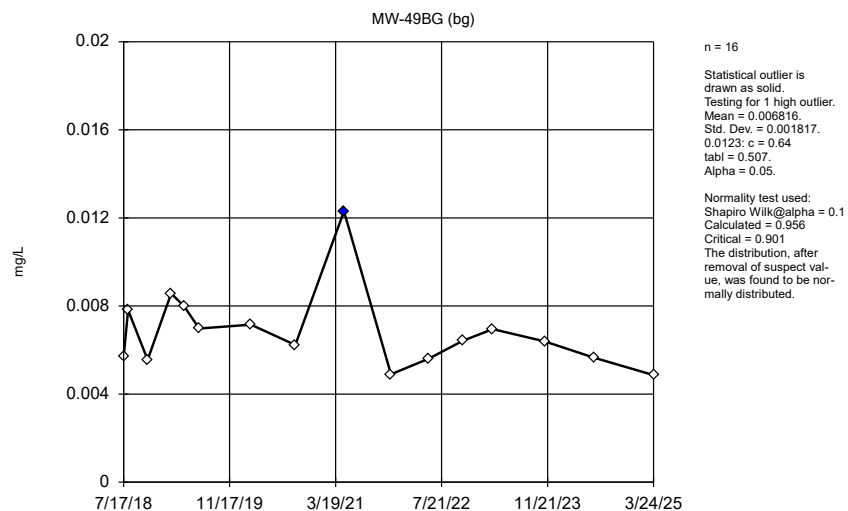
Constituent: Cadmium Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



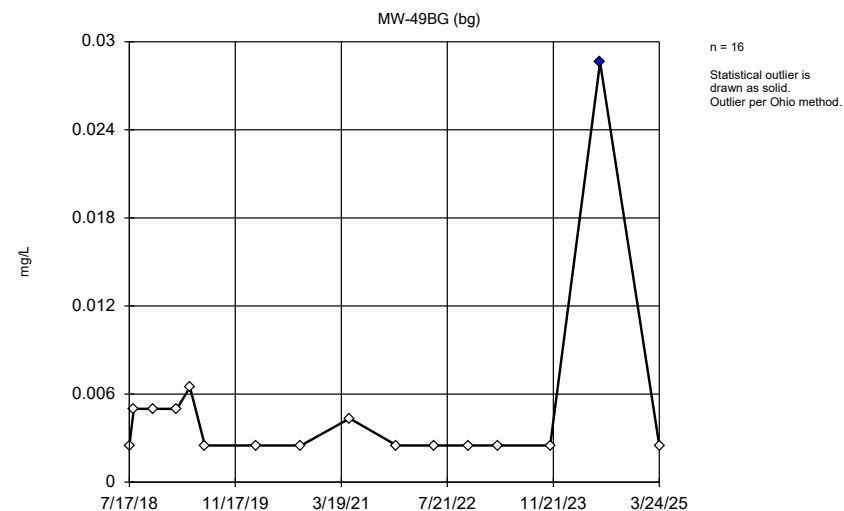
Constituent: Chromium Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



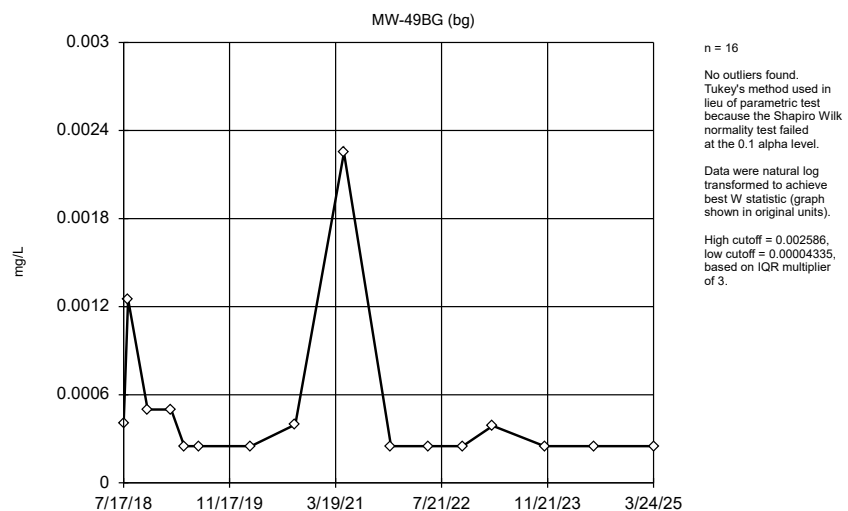
Constituent: Cobalt Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



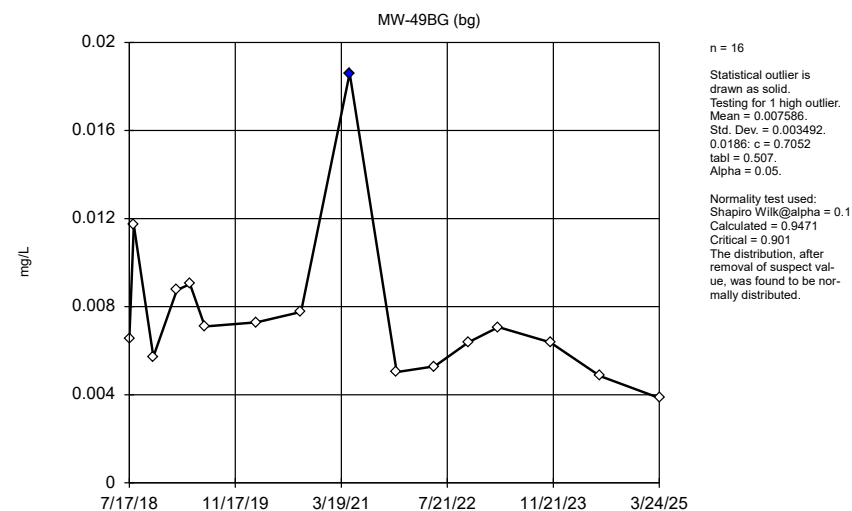
Constituent: Copper Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



Constituent: Lead Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



Constituent: Nickel Analysis Run 5/1/2025 5:12 PM View: 2025_SSN-BG_Outliers_Bedrock
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Prediction Limit Summary Table and Graphs

WaterTable Prediction Limit

Muscatine County SLF

Client: SCS Engineers

Data: MCSWA Sanitas Master

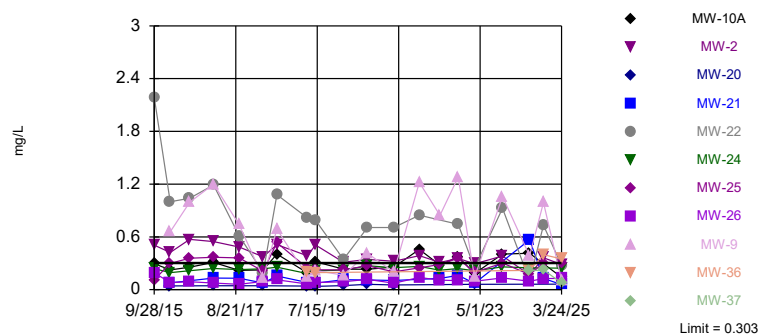
Printed 5/2/2025, 2:29 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-10A	0.303	n/a	3/24/2025	0.14	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-2	0.303	n/a	3/24/2025	0.286	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-20	0.303	n/a	3/24/2025	0.06215	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-21	0.303	n/a	3/24/2025	0.0577	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-22	0.303	n/a	3/24/2025	0.275	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-24	0.303	n/a	3/24/2025	0.2435	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-25	0.303	n/a	3/24/2025	0.297	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-26	0.303	n/a	3/24/2025	0.127	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-9	0.303	n/a	3/24/2025	0.108	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-36	0.303	n/a	3/24/2025	0.349	Yes	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Barium (mg/L)	MW-37	0.303	n/a	3/24/2025	0.0776	No	31	MW-29,MW-50BG	0	n/a	0.001802	NP Inter (normality) ...
Cobalt (mg/L)	MW-2	0.00797	n/a	3/24/2025	0.00136	No	31	MW-29,MW-50BG	22.58	n/a	0.001802	NP Inter (normality) ...
Nickel (mg/L)	MW-36	0.0168	n/a	3/24/2025	0.00762	No	31	MW-29,MW-50BG	45.16	n/a	0.001802	NP Inter (normality) ...

Exceeds Limit: MW-36

Prediction Limit

Interwell Non-parametric



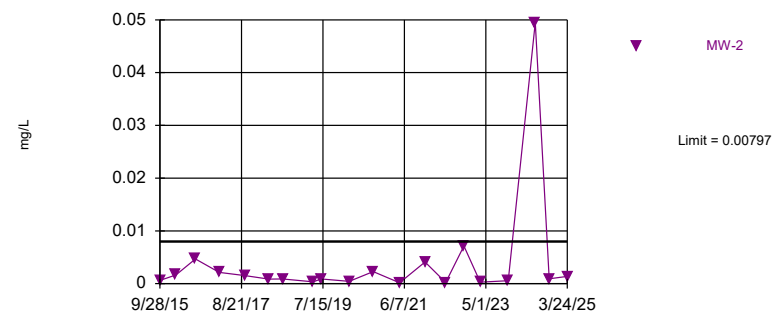
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. Annual per-constituent alpha = 0.02845. Individual comparison alpha = 0.001802 (1 of 2). Comparing 11 points to limit.

Constituent: Barium Analysis Run 5/2/2025 2:28 PM View: 2025_SSN-AM_Interwell_PL_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Within Limit

Prediction Limit

Interwell Non-parametric



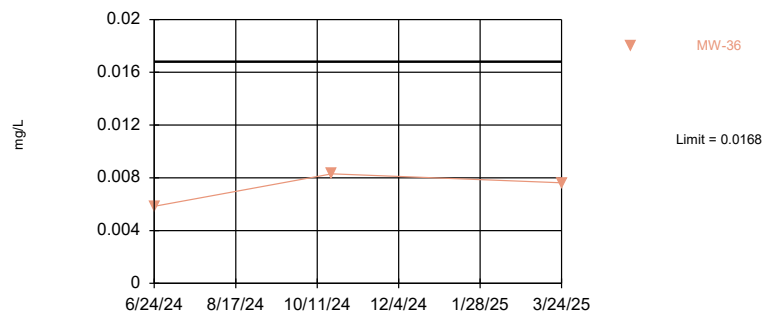
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 22.58% NDs. Annual per-constituent alpha = 0.02845. Individual comparison alpha = 0.001802 (1 of 2). Assumes 7 future values.

Constituent: Cobalt Analysis Run 5/2/2025 2:28 PM View: 2025_SSN-AM_Interwell_PL_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 45.16% NDs. Annual per-constituent alpha = 0.02845. Individual comparison alpha = 0.001802 (1 of 2). Assumes 7 future values.

Constituent: Nickel Analysis Run 5/2/2025 2:28 PM View: 2025_SSN-AM_Interwell_PL_WaterTable
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

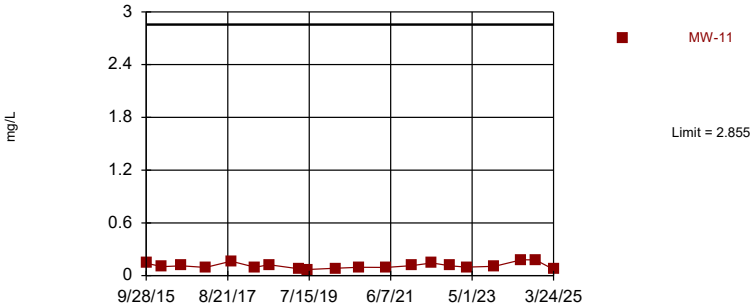
Bedrock Prediction Limit

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 5/2/2025, 9:38 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-11	2.855	n/a	3/24/2025	0.0723	No	16	MW-49BG	0	x^2	0.006563	Param Inter 1 of 2

Within Limit

Prediction Limit
Interwell Parametric



Mann-Kendall Trend Test Summary Table and Graphs

Trend Test

Muscatine County SLF

Client: SCS Engineers

Data: Muscatine-2025_SSN-AM

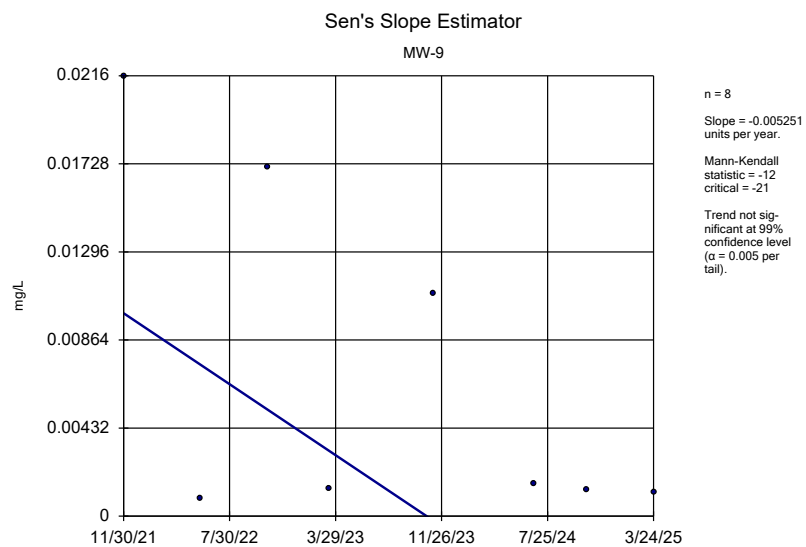
Printed 5/2/2025, 3:22 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-9	-0.005251	-12	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-10A	0.001163	11	21	No	8	25	0.01	NP
Arsenic (mg/L)	MW-11	0	6	21	No	8	62.5	0.01	NP
Arsenic (mg/L)	MW-21	0	3	21	No	8	75	0.01	NP
Arsenic (mg/L)	MW-22	-0.0002238	-15	-21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-26	-0.00008349	-7	-21	No	8	25	0.01	NP
Barium (mg/L)	MW-2	-0.01987	-10	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-9	-0.2164	-12	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-10A	-0.01891	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-11	-0.004711	-4	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-20	0.003902	20	21	No	8	0	0.01	NP
Barium (mg/L)	MW-21	-0.00335	-1	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-22	-0.1102	-6	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-24	-0.002122	-4	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-25	0.0007174	0	21	No	8	0	0.01	NP
Barium (mg/L)	MW-26	-0.003359	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-36	0.02617	6	12	No	5	0	0.01	NP
Benzene (ug/L)	MW-9	-0.2945	-15	-21	No	8	25	0.01	NP
Benzene (ug/L)	MW-22	-0.002074	-1	-21	No	8	25	0.01	NP
Cadmium (mg/L)	MW-2	0.00001516	11	21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-9	0.000009823	3	21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-11	0.00002011	12	21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-21	0.00001407	13	21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-22	0.00002052	14	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-24	0.00001394	13	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-26	0	7	21	No	8	87.5	0.01	NP
Chlorobenzene (ug/L)	MW-9	-7.975	-11	-21	No	8	25	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-9	-0.3206	-11	-21	No	8	25	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-11	-0.5924	-9	-21	No	8	37.5	0.01	NP
Cobalt (mg/L)	MW-2	0.0003402	6	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-9	-0.003225	-13	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-10A	0.00008704	4	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-11	-0.00006101	-10	-21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-20	0.000006807	6	21	No	8	50	0.01	NP
Cobalt (mg/L)	MW-22	0.00002264	2	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-26	-0.0002568	-4	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-37	-0.0001139	-8	-12	No	5	0	0.01	NP
Copper (mg/L)	MW-24	0	4	21	No	8	62.5	0.01	NP
Copper (mg/L)	MW-26	0	3	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-21	0	-1	-21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-26	-0.00001402	-5	-21	No	8	25	0.01	NP
Nickel (mg/L)	MW-2	-0.00008493	-3	-21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-9	-0.004884	-19	-21	No	8	25	0.01	NP
Nickel (mg/L)	MW-10A	-0.0001938	-5	-21	No	8	25	0.01	NP
Nickel (mg/L)	MW-11	-0.0001169	-8	-21	No	8	50	0.01	NP
Nickel (mg/L)	MW-20	0	7	21	No	8	75	0.01	NP
Nickel (mg/L)	MW-21	-0.0004486	-22	-21	Yes	8	0	0.01	NP
Nickel (mg/L)	MW-22	0.0006643	3	21	No	8	25	0.01	NP
Selenium (mg/L)	MW-20	0.000787	15	21	No	8	25	0.01	NP
Sulfide (mg/L)	MW-26	0.08859	7	14	No	6	66.67	0.01	NP

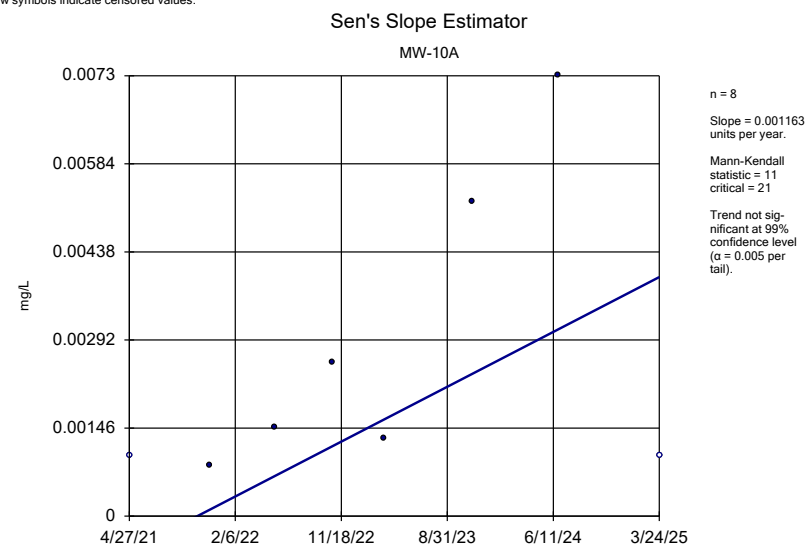
Trend Test

Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM Printed 5/2/2025, 3:22 PM

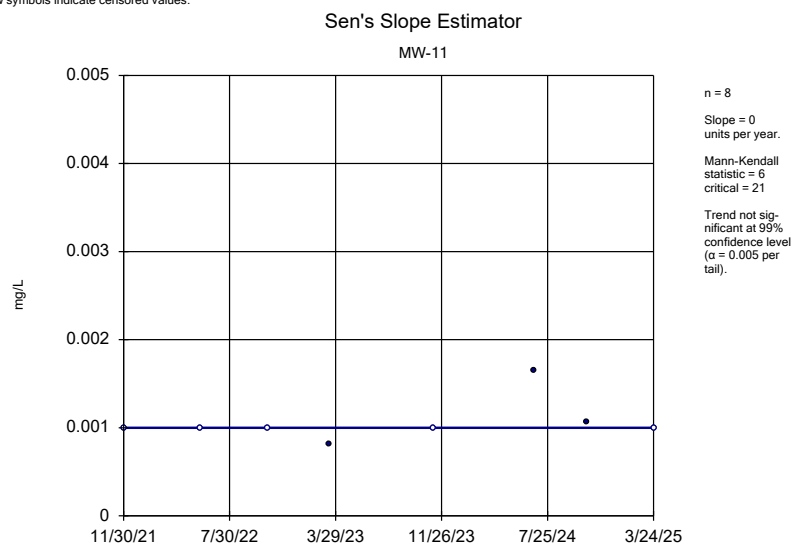
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Vinyl Chloride (ug/L)	MW-13	-0.22	-8	-21	No	8	0	0.01	NP
Zinc (mg/L)	MW-2	0	3	21	No	8	87.5	0.01	NP



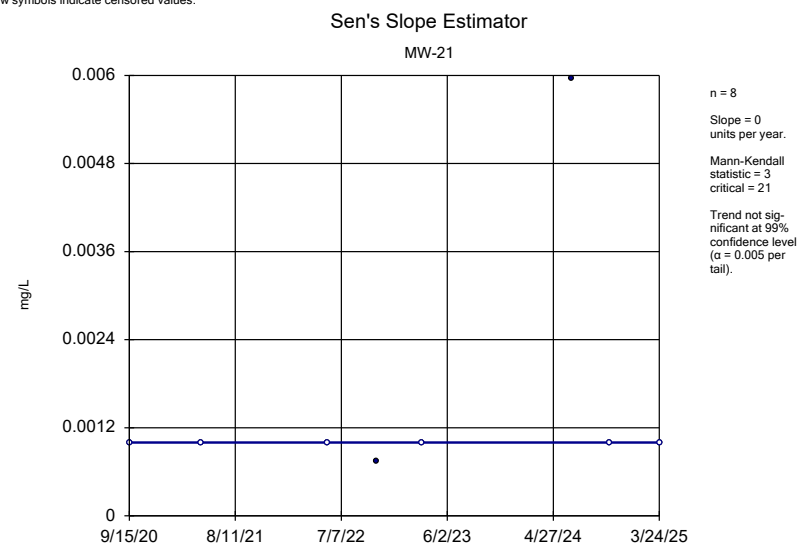
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



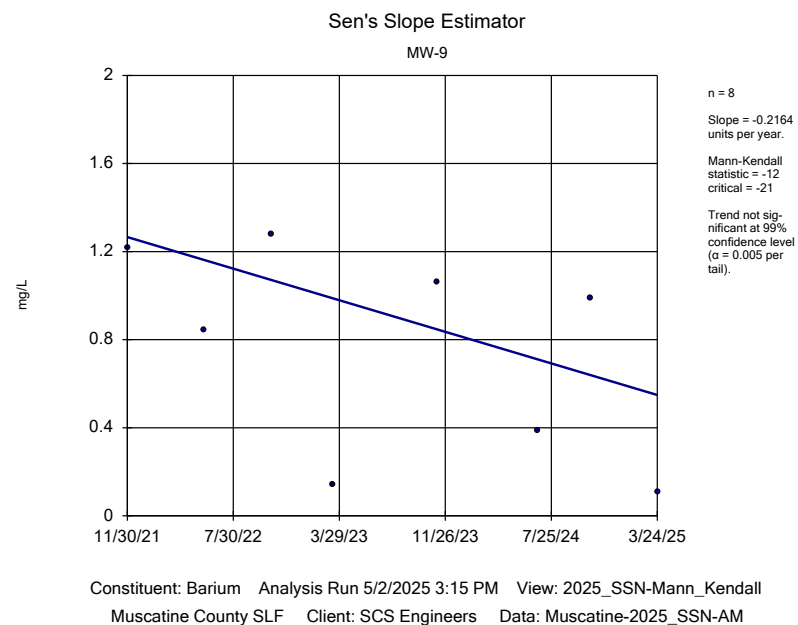
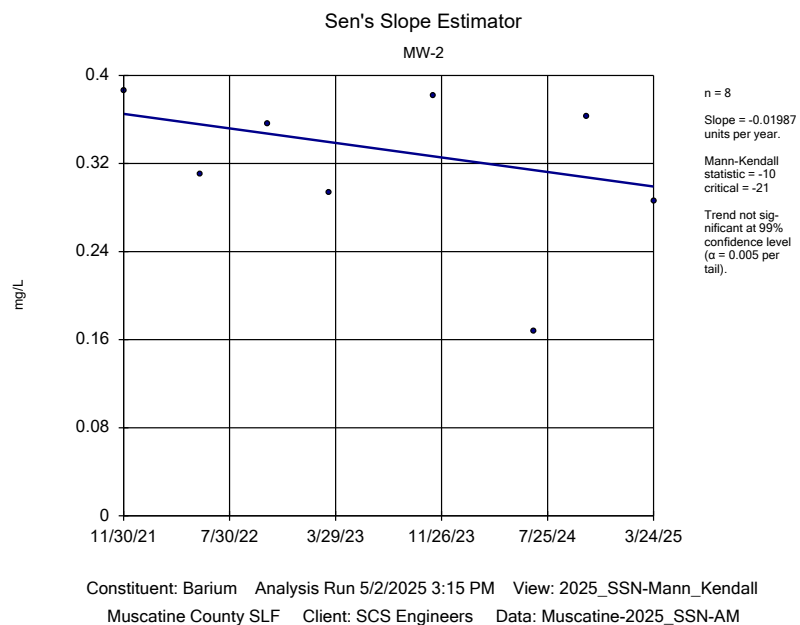
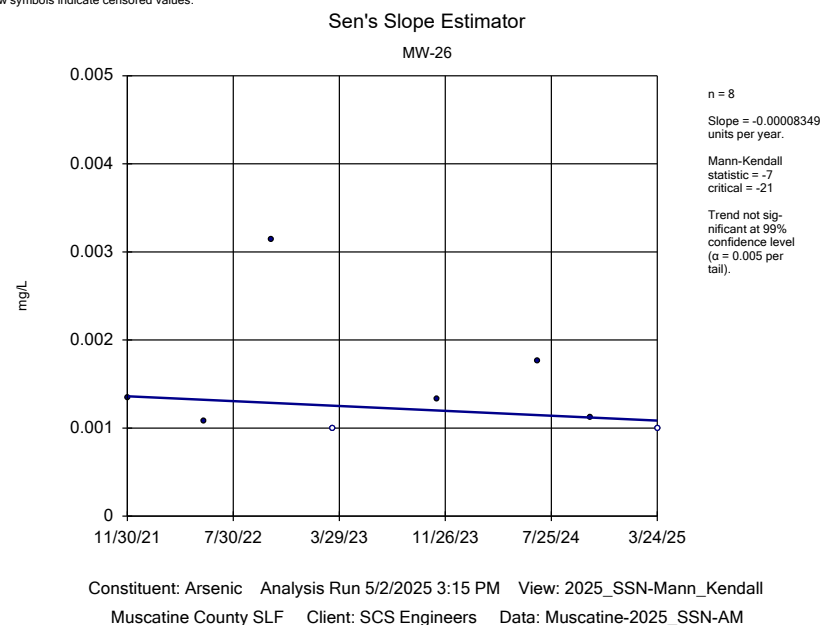
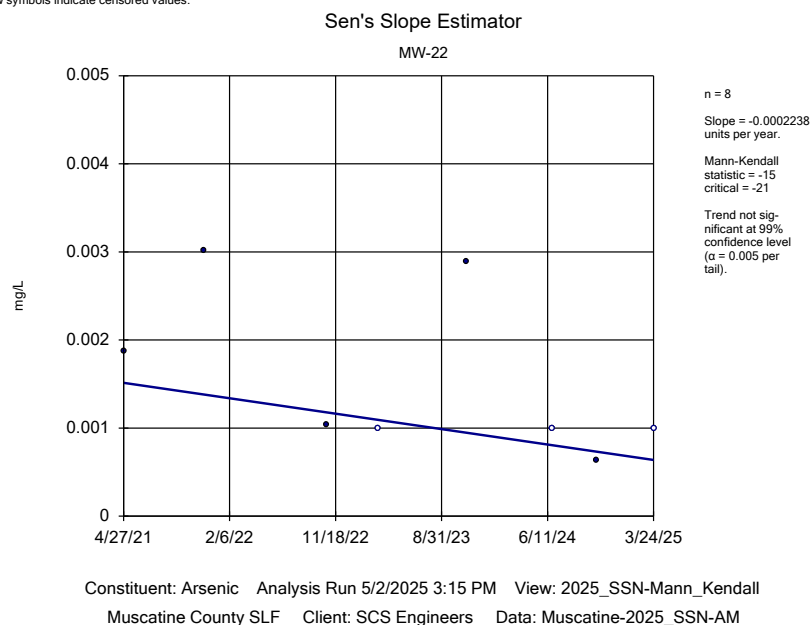
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

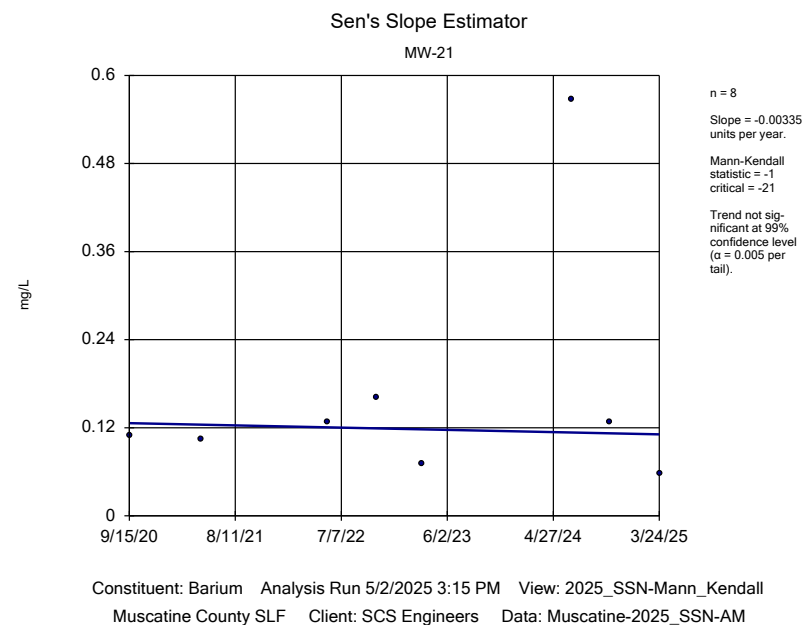
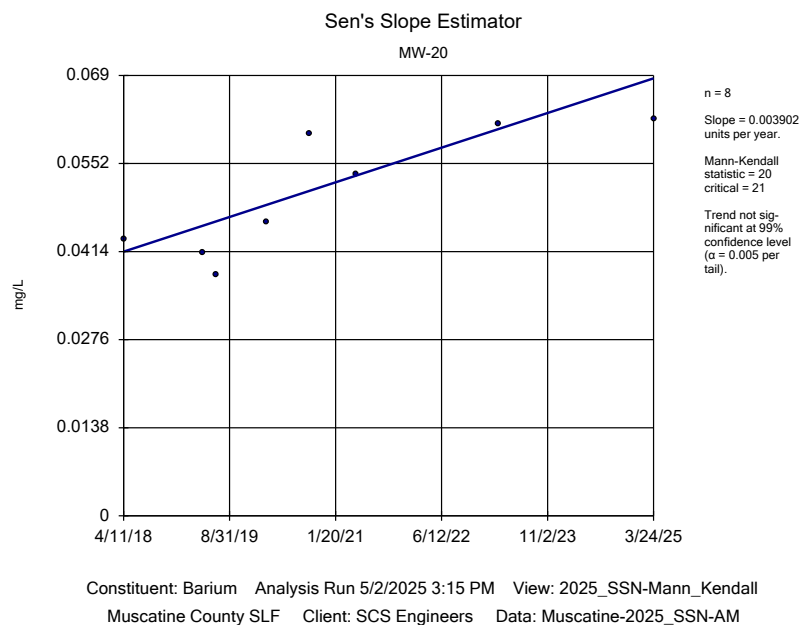
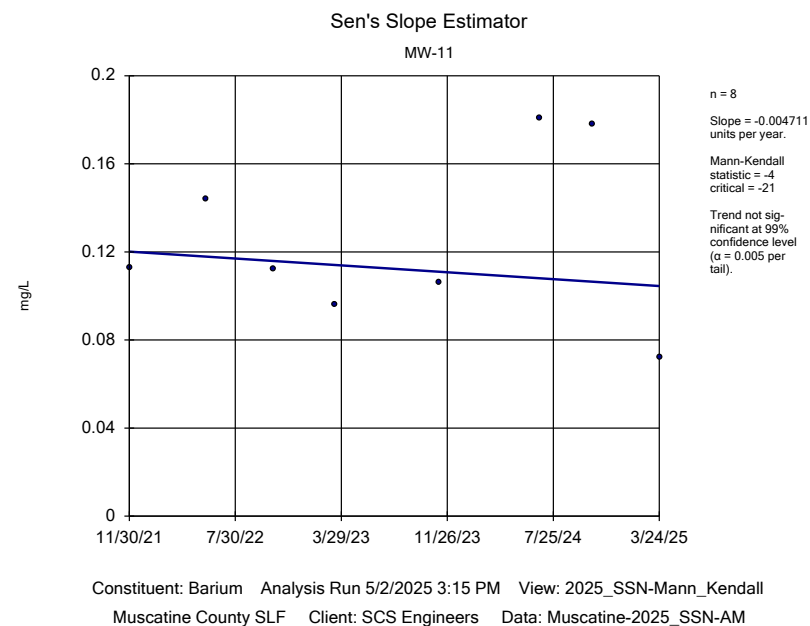
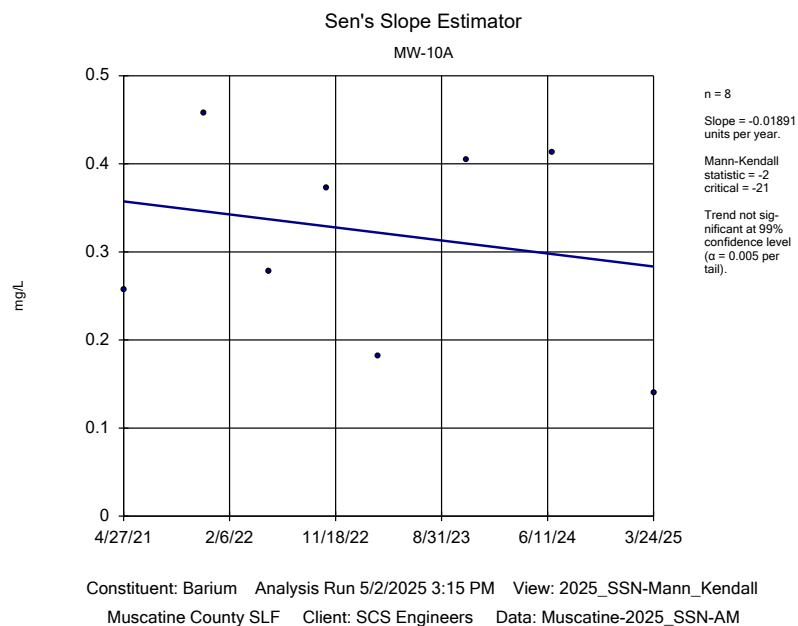


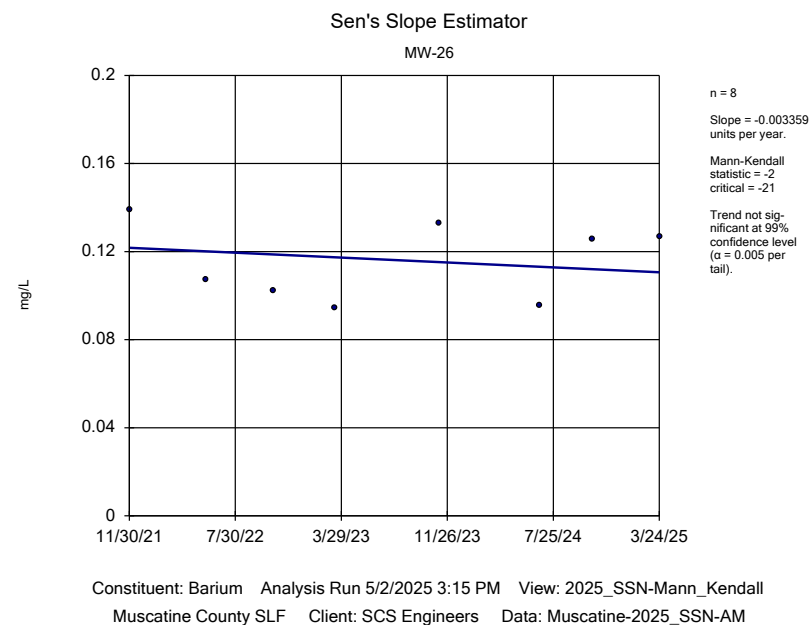
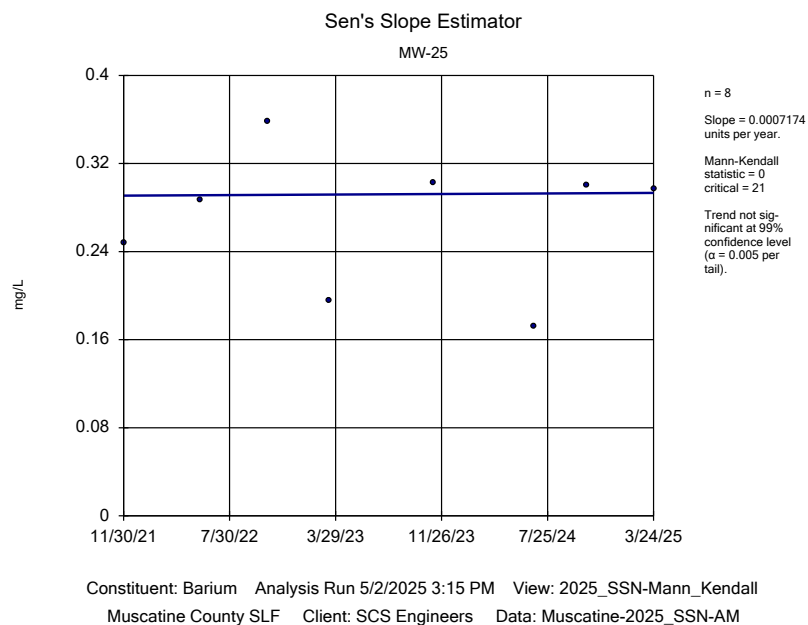
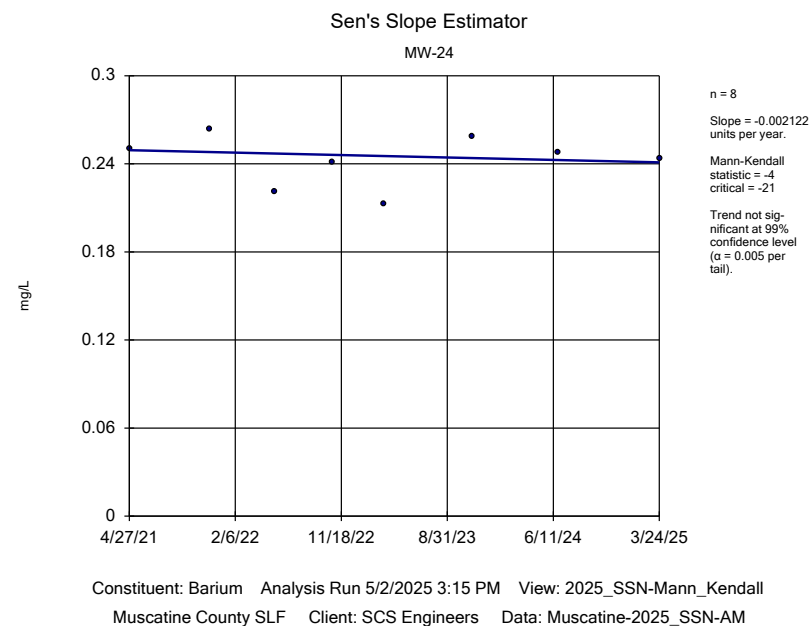
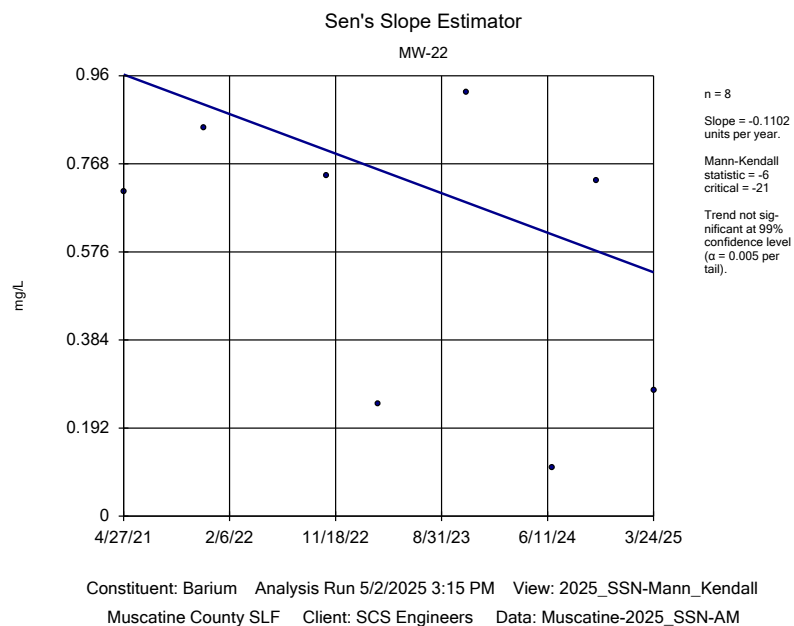
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Arsenic Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

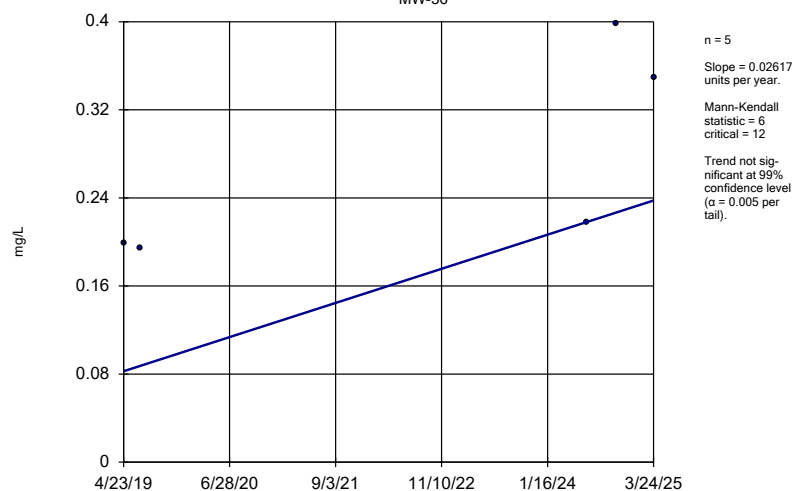






Sen's Slope Estimator

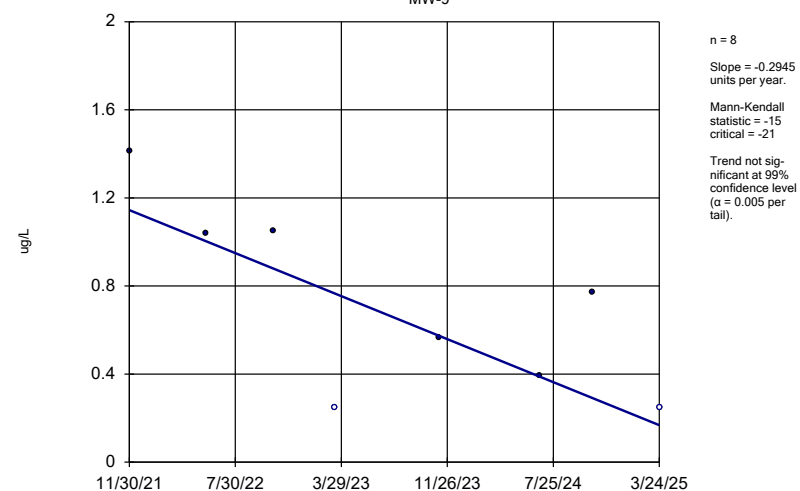
MW-36



Constituent: Barium Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

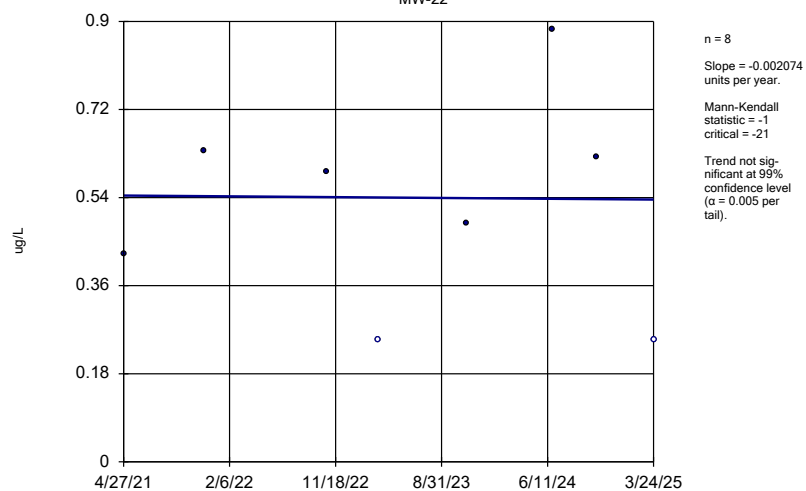
MW-9



Constituent: Benzene Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

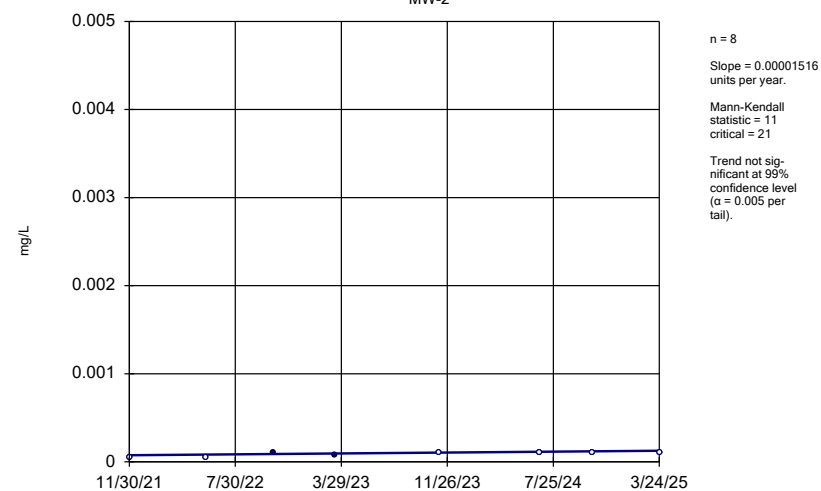
MW-22



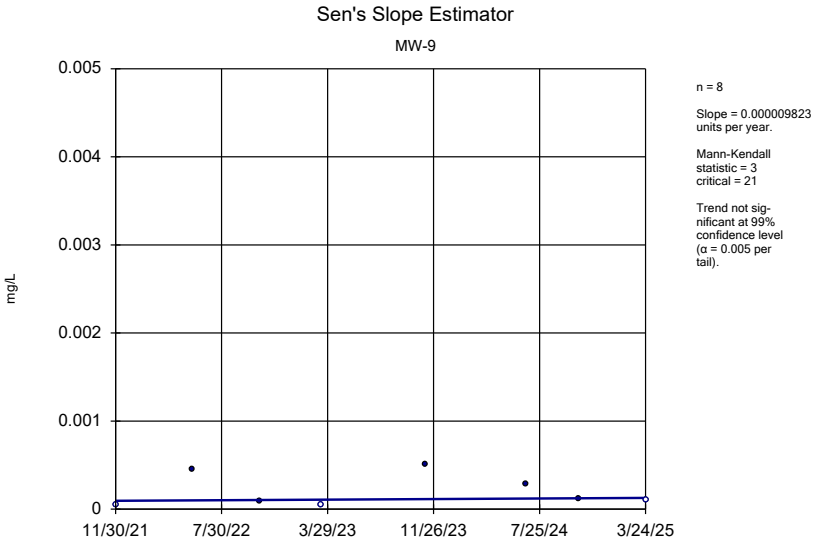
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

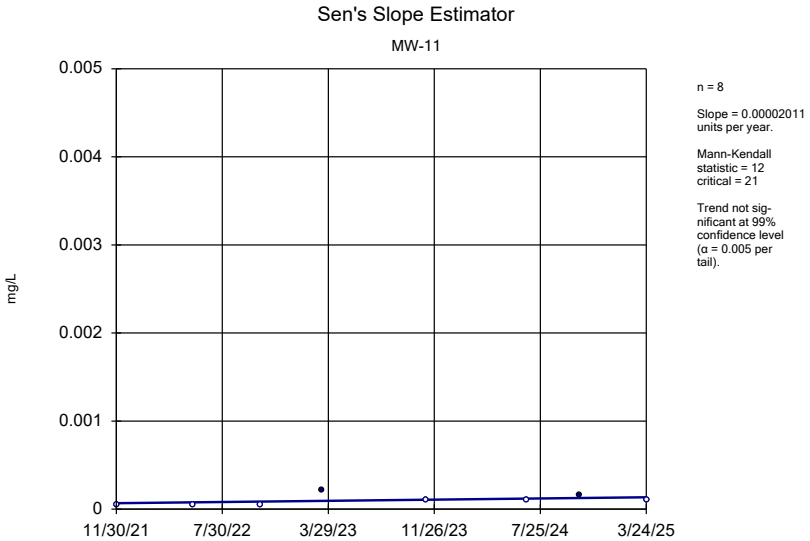
MW-2



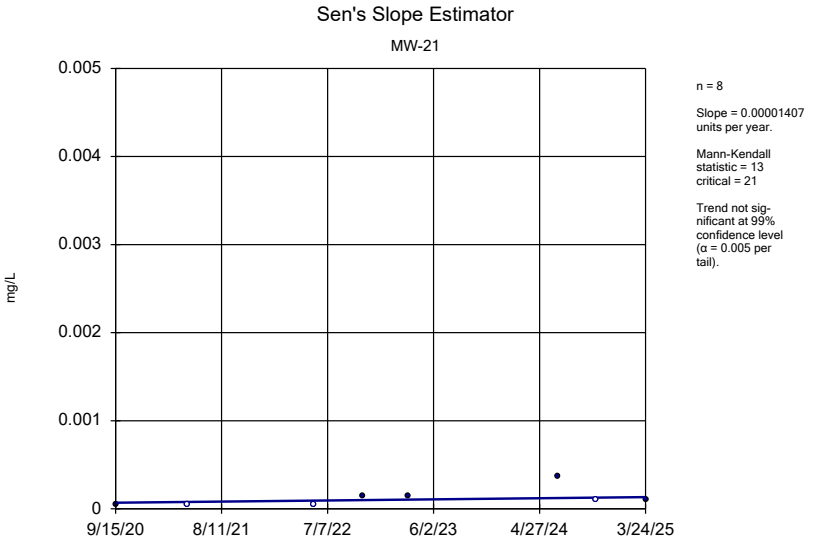
Constituent: Cadmium Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



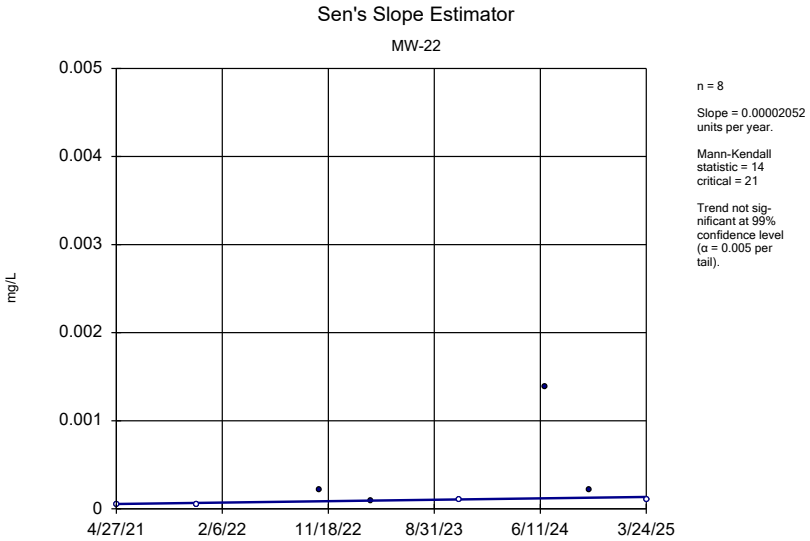
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



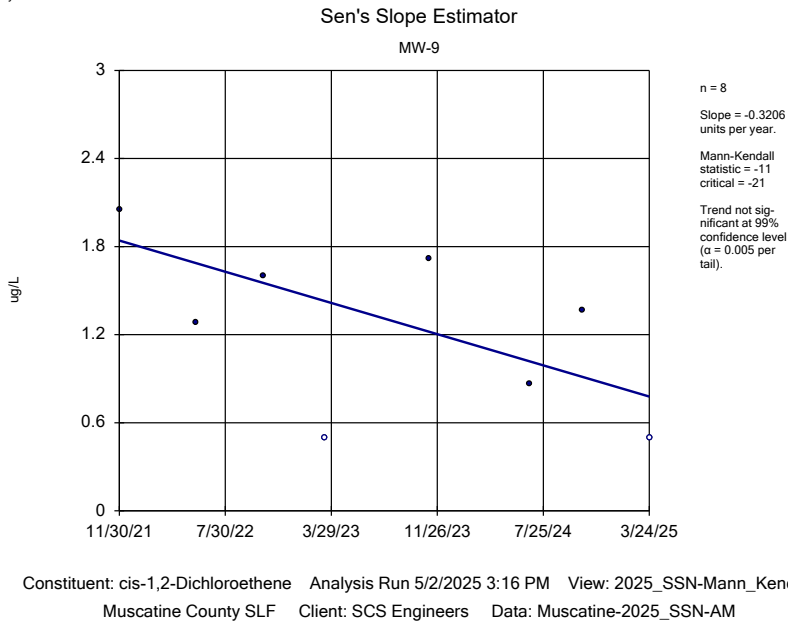
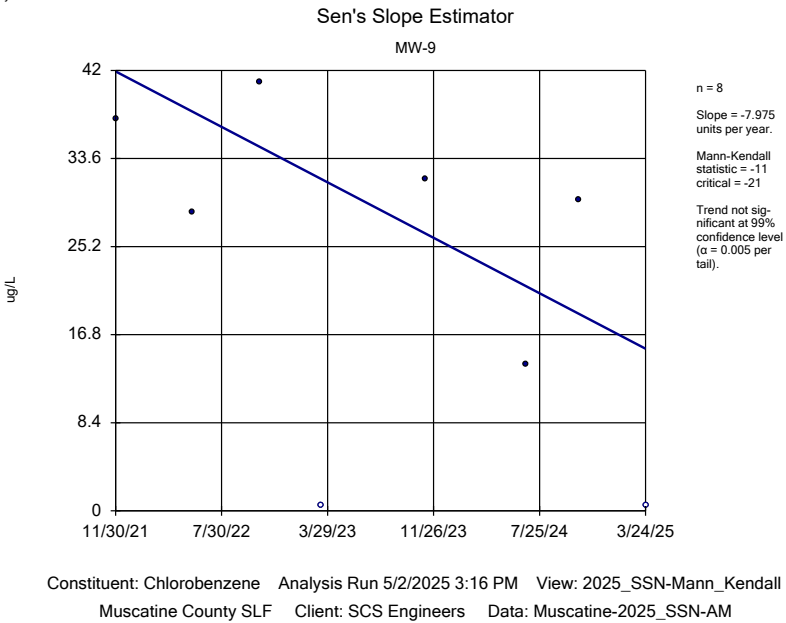
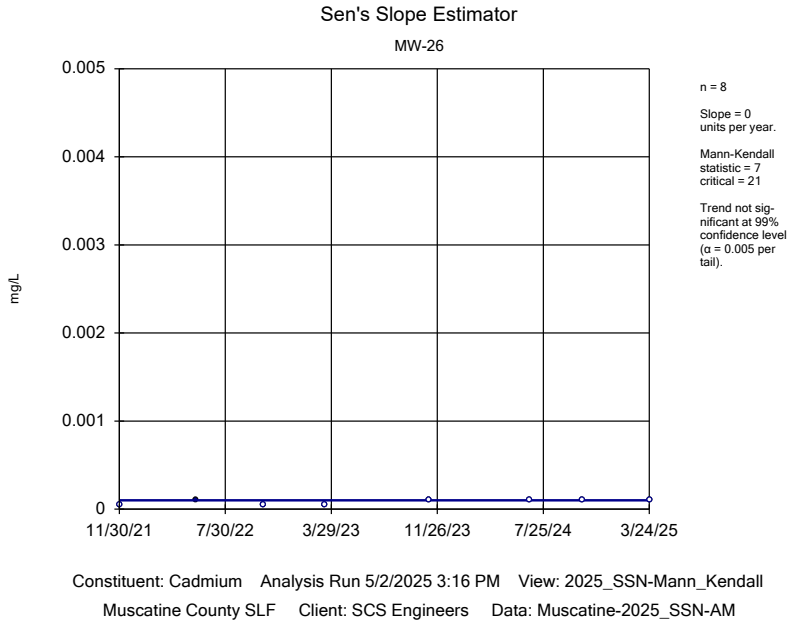
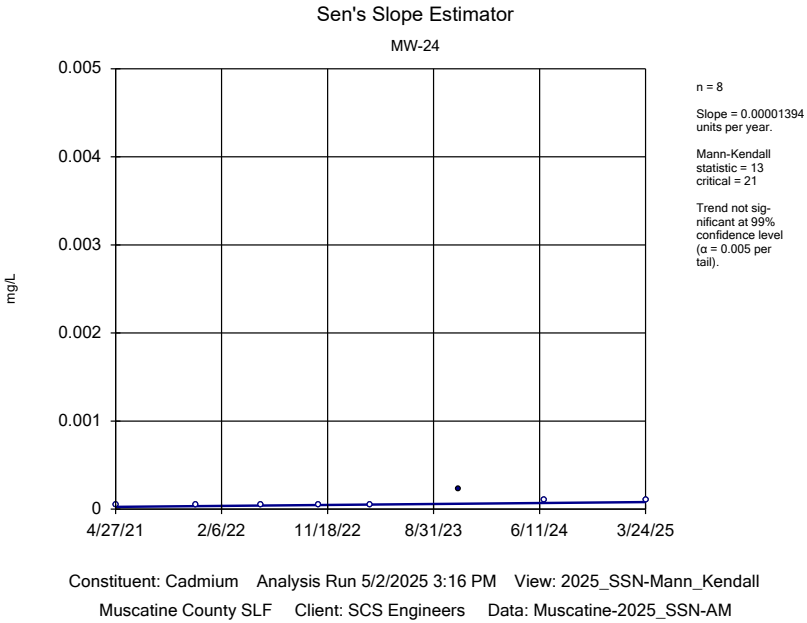
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Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

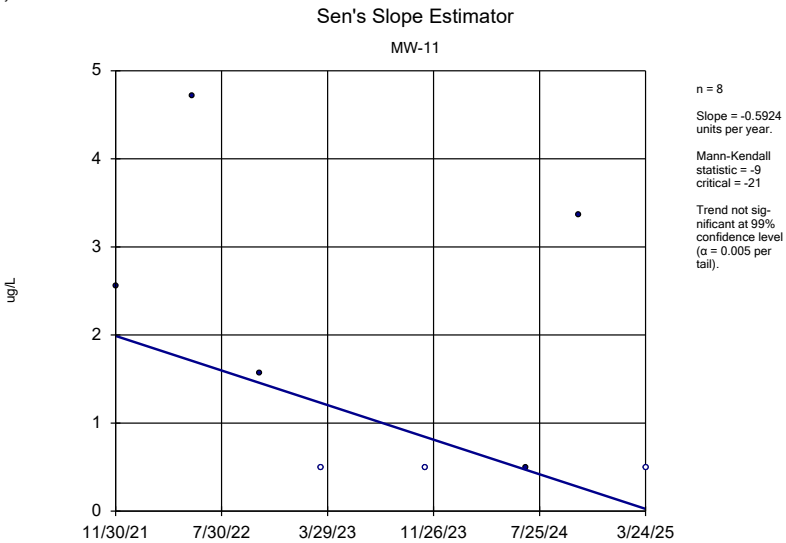


Constituent: Cadmium Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

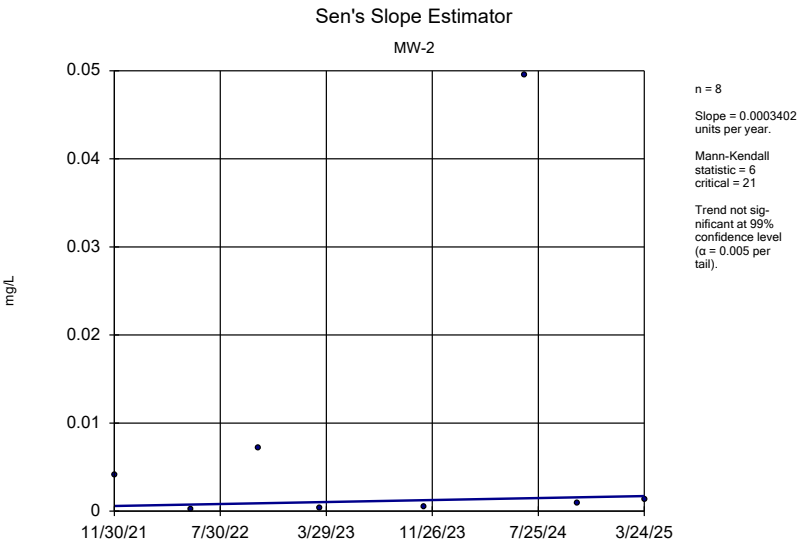


Constituent: Cadmium Analysis Run 5/2/2025 3:15 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

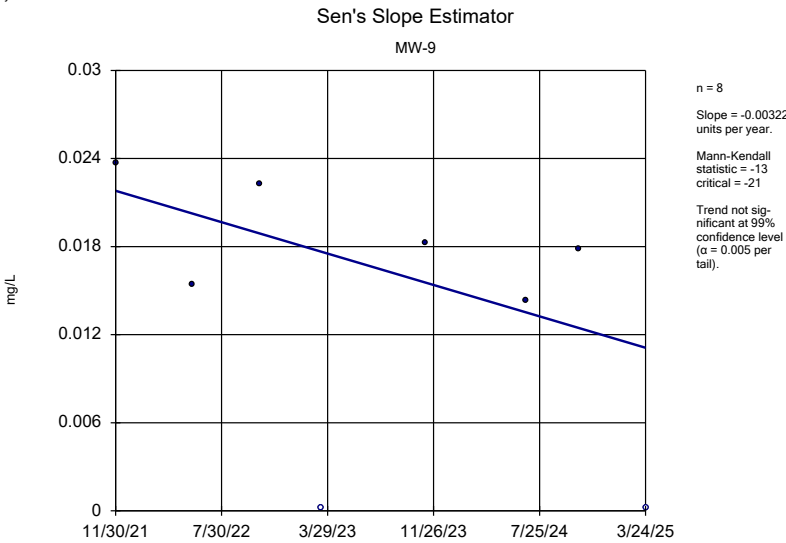




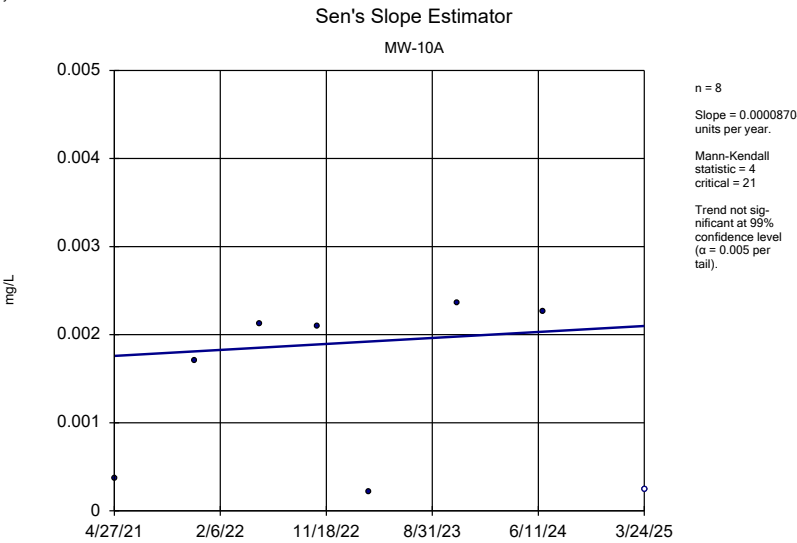
Constituent: cis-1,2-Dichloroethene Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



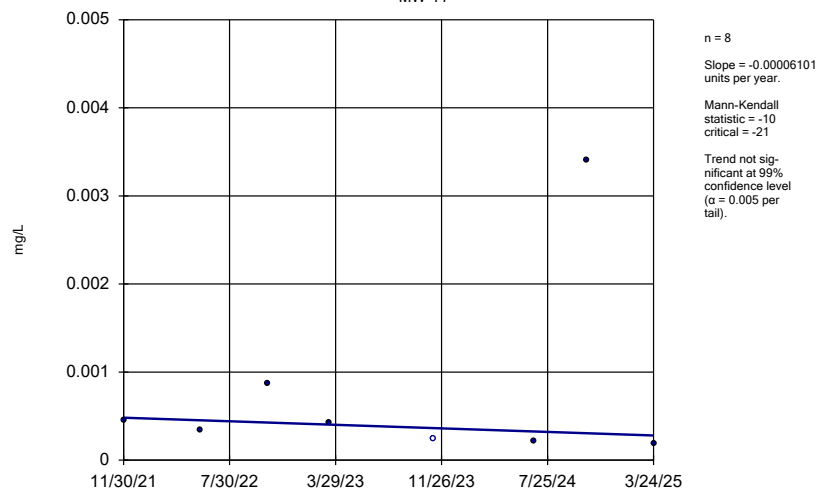
Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

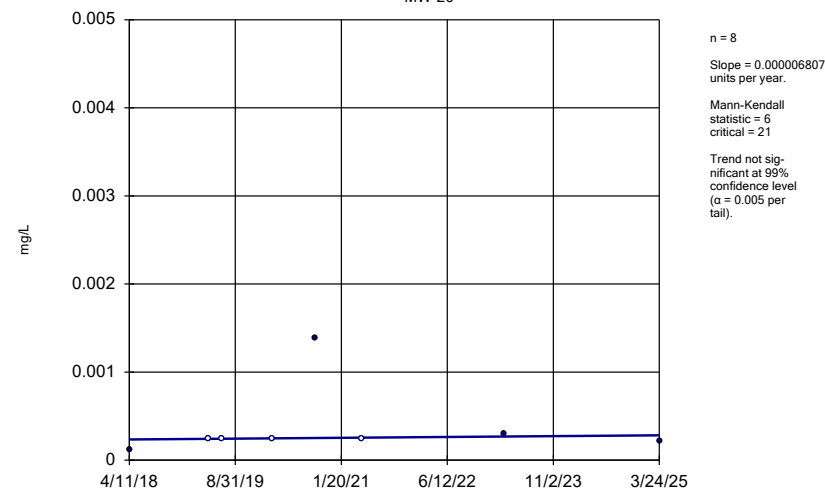
MW-11



Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

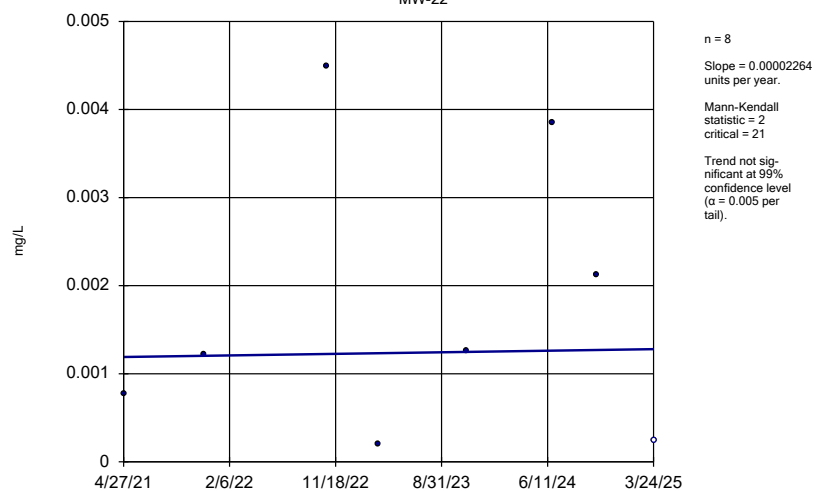
MW-20



Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

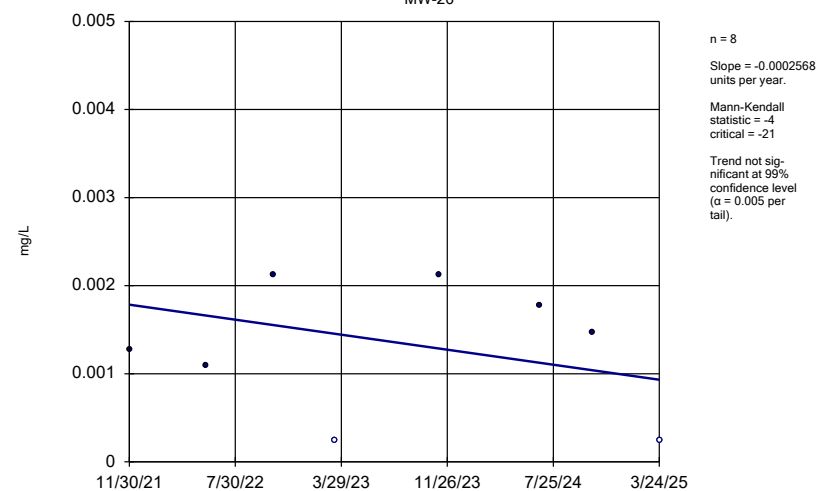
MW-22



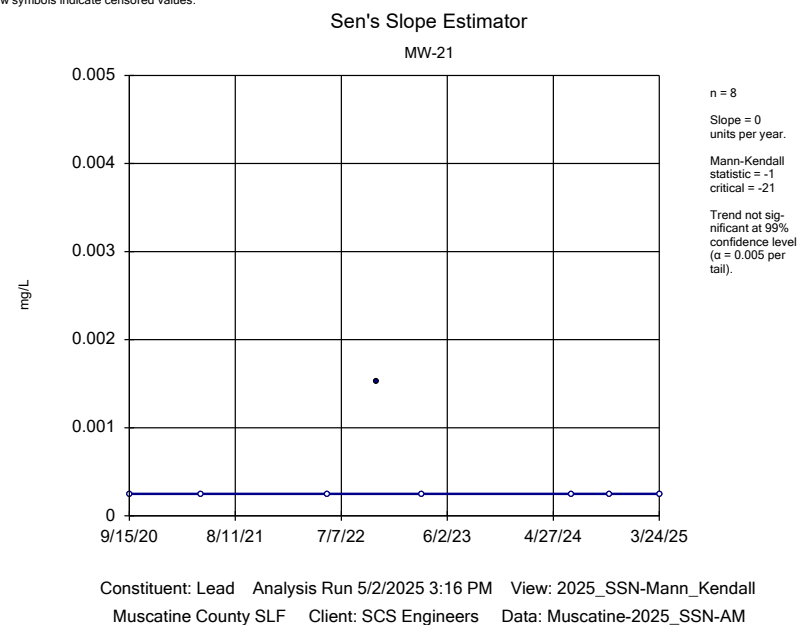
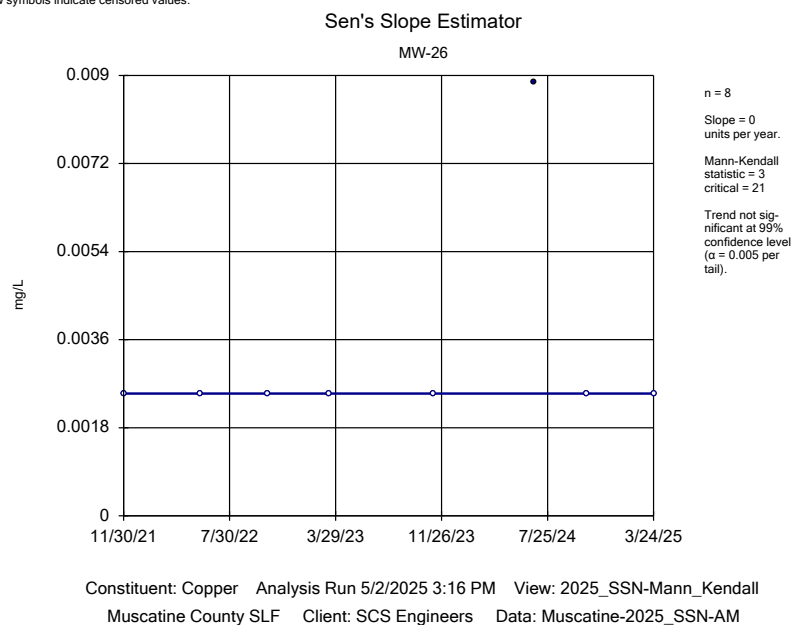
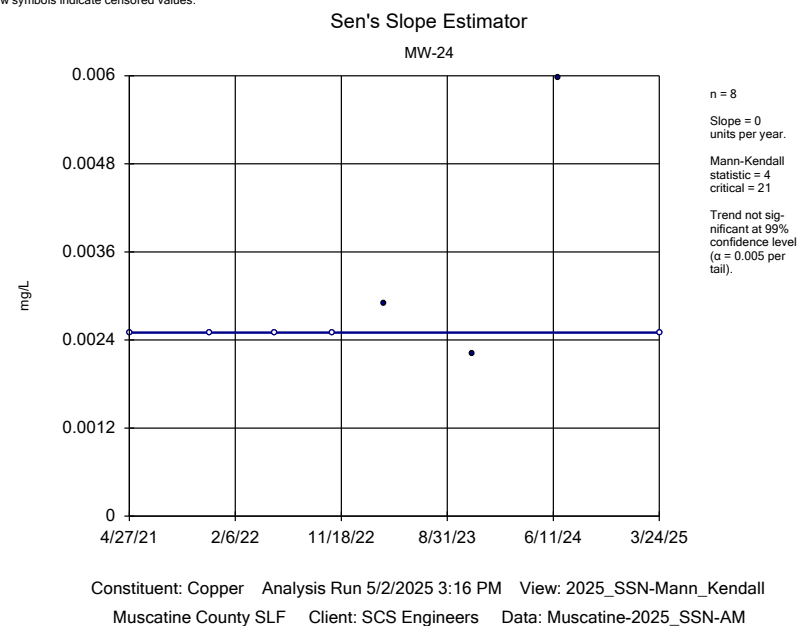
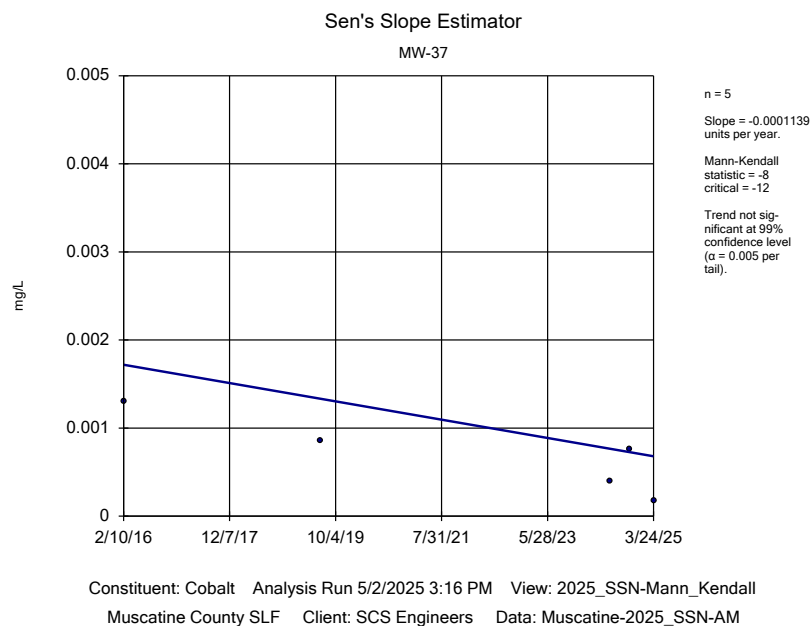
Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

MW-26

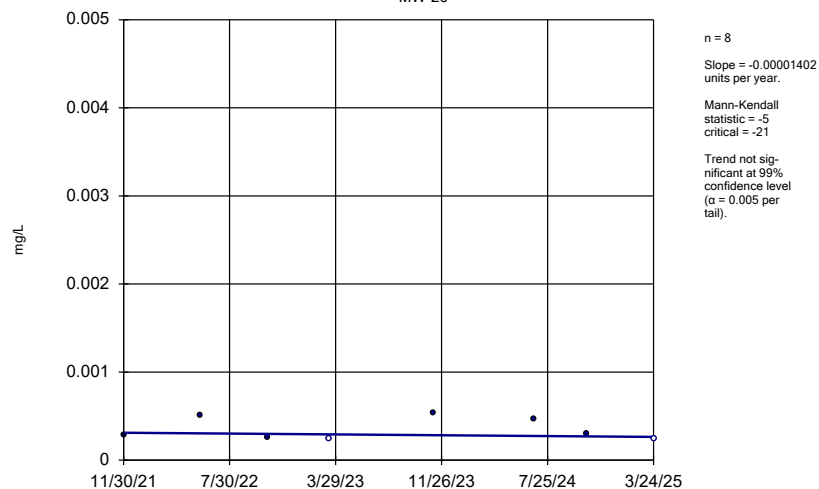


Constituent: Cobalt Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Sen's Slope Estimator

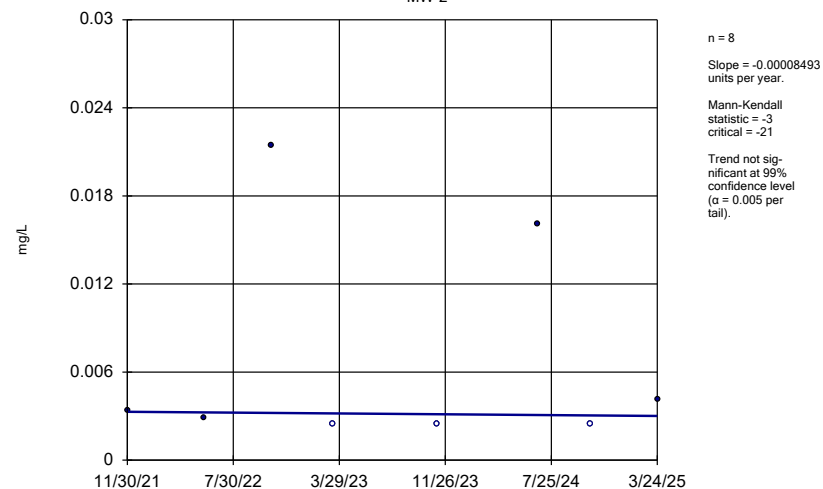
MW-26



Constituent: Lead Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

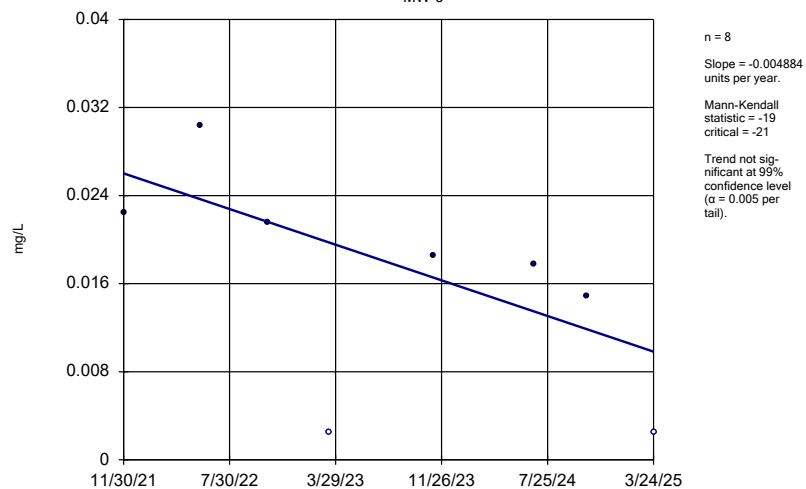
MW-2



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

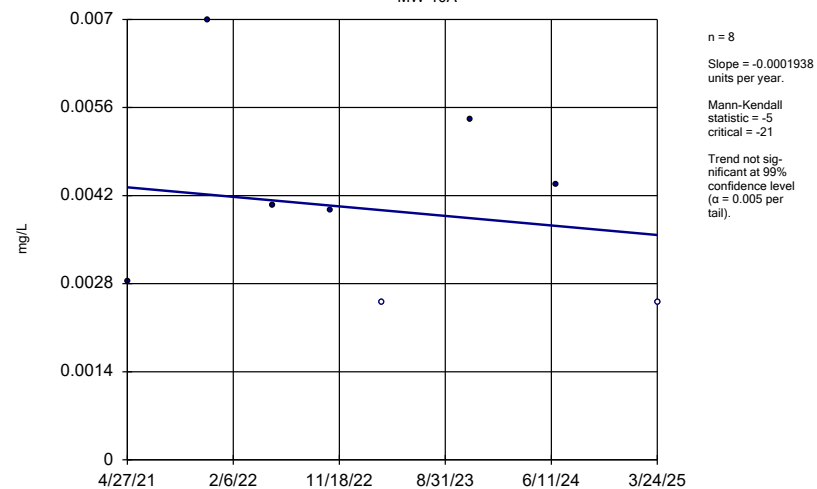
MW-9



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

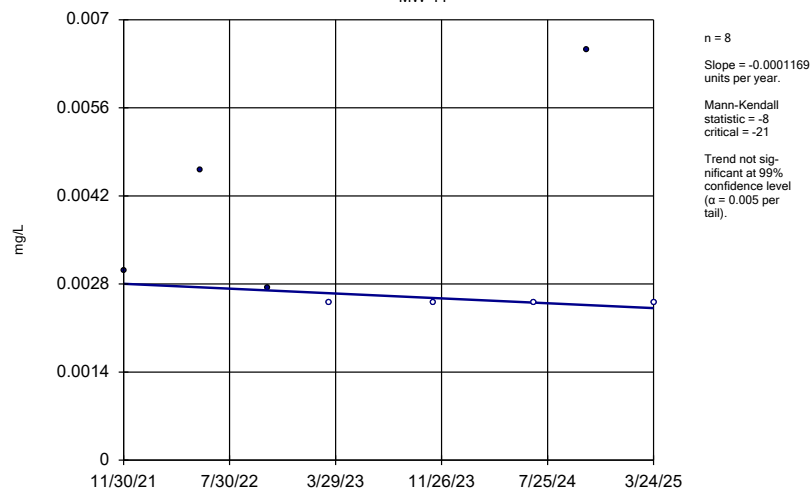
MW-10A



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

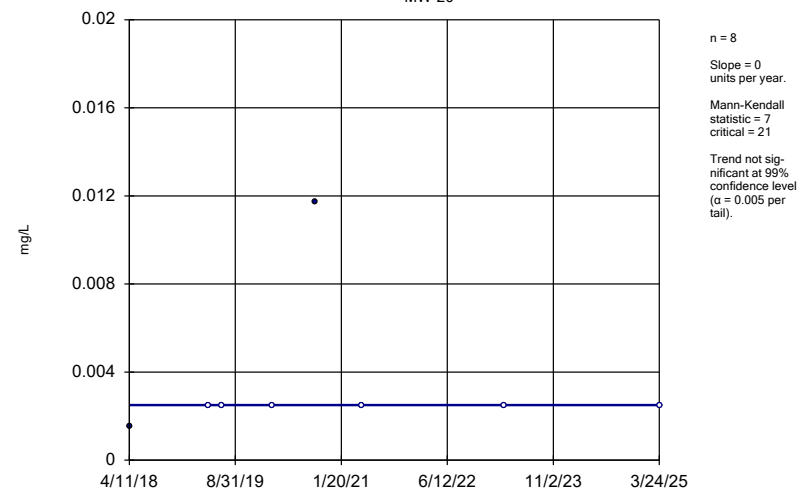
MW-11



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

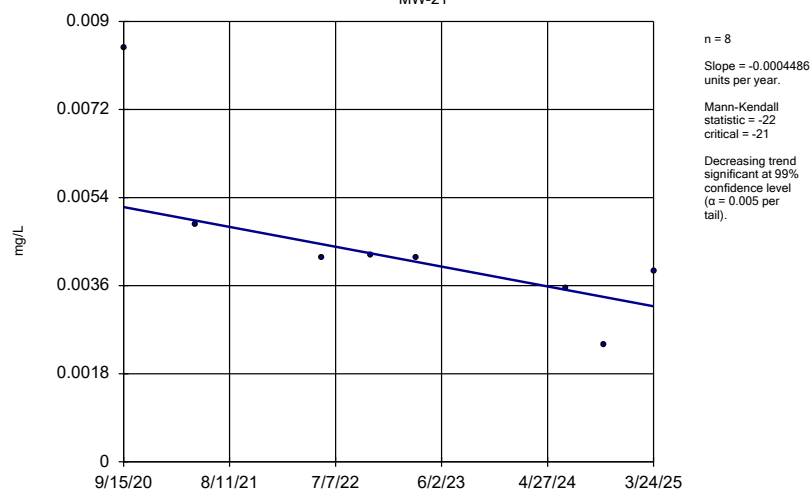
MW-20



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

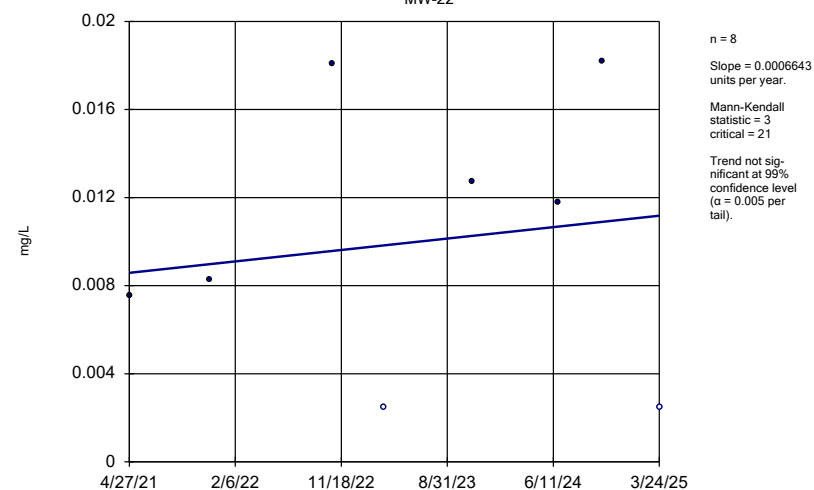
MW-21



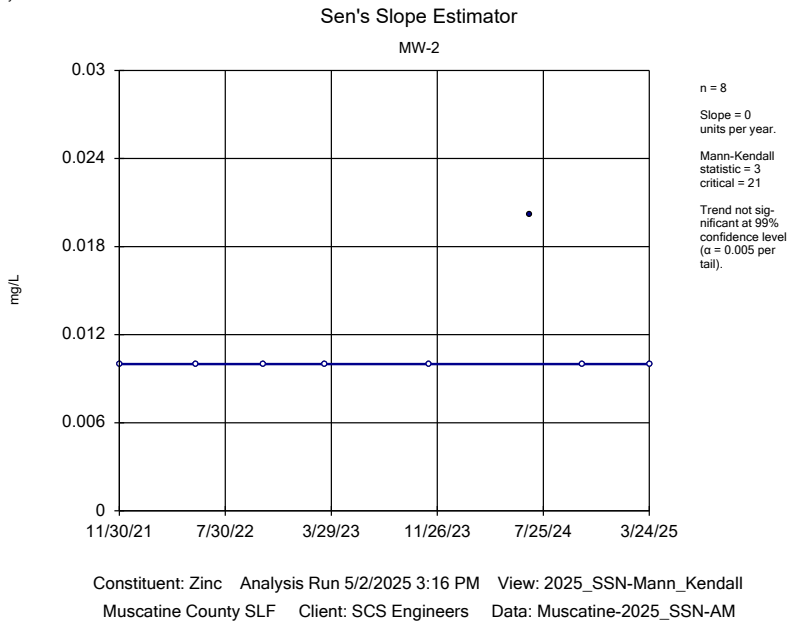
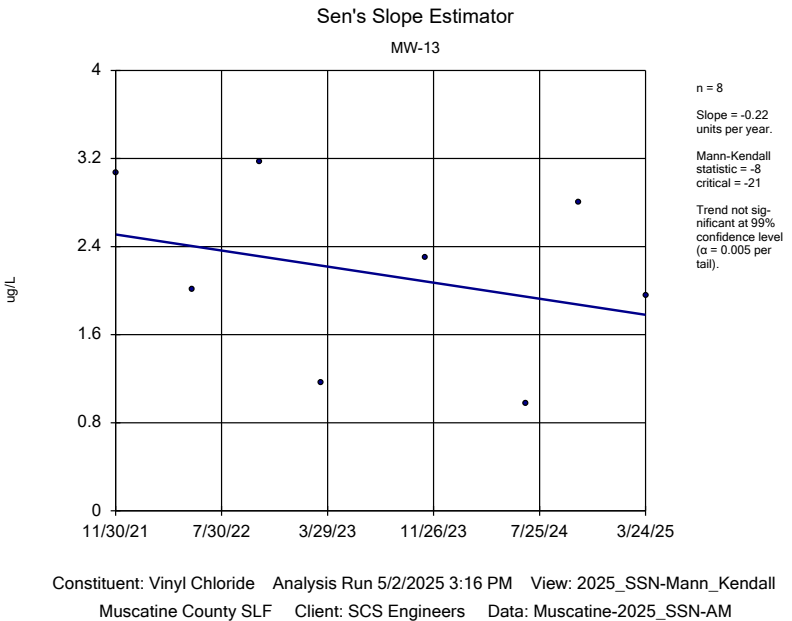
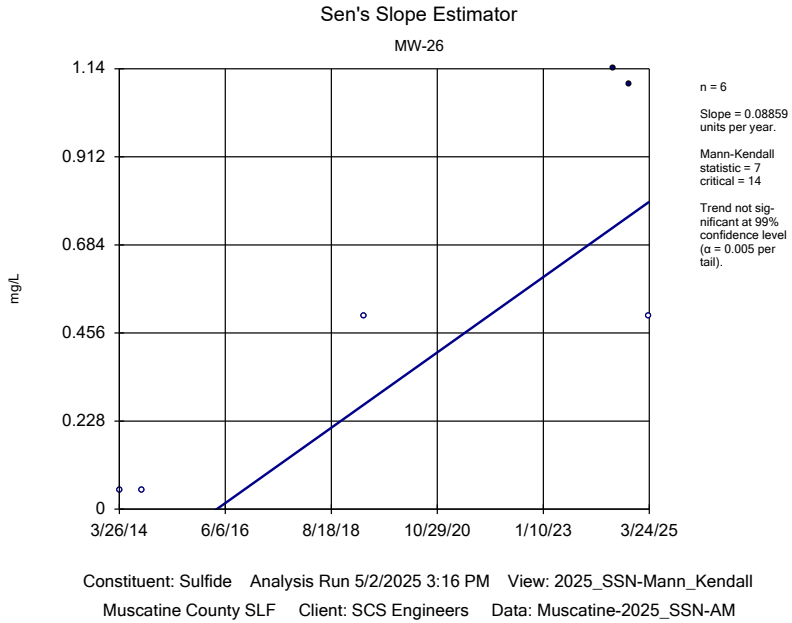
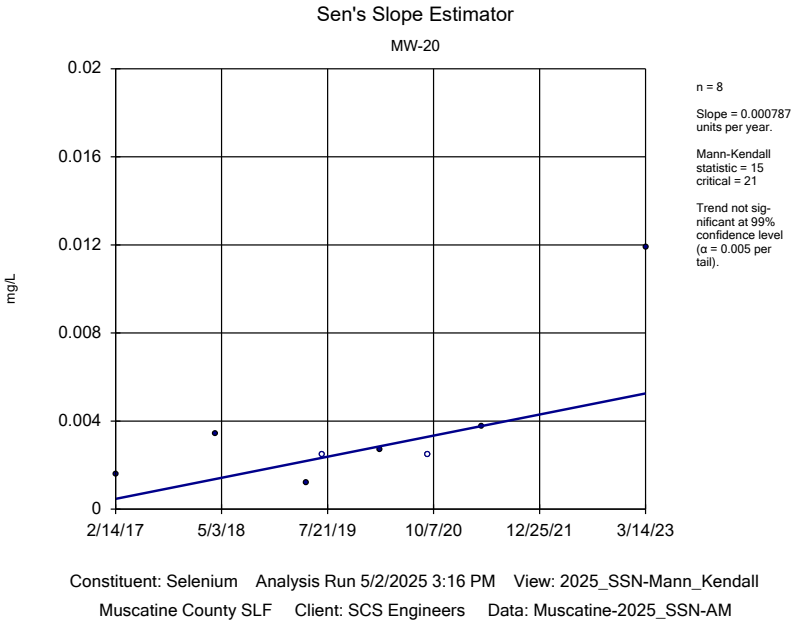
Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Sen's Slope Estimator

MW-22



Constituent: Nickel Analysis Run 5/2/2025 3:16 PM View: 2025_SSN-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Confidence Interval Summary Table and Graphs

WaterTable Confidence Interval

Muscatine County SLF

Client: SCS Engineers

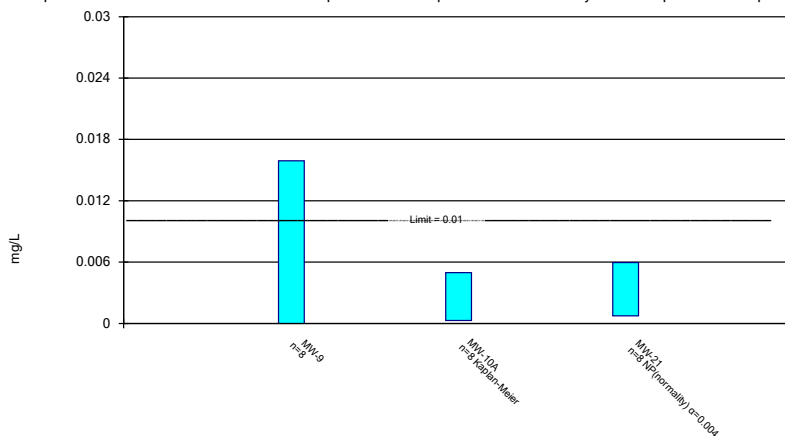
Data: Muscatine-2025_SSN-AM

Printed 5/2/2025, 4:06 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-9	0.01591	0	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	MW-10A	0.004976	0.0002975	0.01	No	8	25	No	0.01	Param.
Arsenic (mg/L)	MW-21	0.00596	0.00075	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	MW-22	0.002565	0.0006857	0.01	No	8	37.5	No	0.01	Param.
Arsenic (mg/L)	MW-26	0.00314	0.001	0.01	No	8	25	No	0.004	NP (normality)
Barium (mg/L)	MW-2	0.3945	0.2417	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-9	1.257	0.2496	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10A	0.4359	0.1901	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-20	0.06106	0.04027	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-21	0.567	0.0577	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-22	0.904	0.2407	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-24	0.261	0.2238	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-25	0.3349	0.2051	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-26	0.1342	0.09685	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-36	0.4309	0.1123	2	No	5	0	No	0.01	Param.
Benzene (ug/L)	MW-9	1.132	0.372	5	No	8	25	No	0.01	Param.
Benzene (ug/L)	MW-22	0.7205	0.4195	5	No	8	25	No	0.01	Param.
Cadmium (mg/L)	MW-2	0.0001007	0.00006808	0.005	No	8	75	No	0.01	Param.
Cadmium (mg/L)	MW-9	0.0003924	0.00004093	0.005	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-21	0.000373	0.000049	0.005	No	8	37.5	No	0.004	NP (normality)
Cadmium (mg/L)	MW-22	0.00139	0.00005	0.005	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-24	0.000235	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-26	0.000105	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-9	38.56	7.438	100	No	8	25	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-9	1.77	0.8841	70	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-2	0.0495	0.000224	0.00797	No	8	0	No	0.004	NP (normality)
Cobalt (mg/L)	MW-9	0.02299	0.005213	0.00797	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-10A	0.002451	0.0003972	0.00797	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-20	0.00138	0.000112	0.00797	No	8	50	No	0.004	NP (normality)
Cobalt (mg/L)	MW-22	0.003479	0.00006247	0.00797	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-26	0.00182	0.0006384	0.00797	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-37	0.001429	0	0.00797	No	5	0	No	0.01	Param.
Copper (mg/L)	MW-24	0.00597	0.00221	1.3	No	8	62.5	No	0.004	NP (normality)
Copper (mg/L)	MW-26	0.00886	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-21	0.00153	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-26	0.0004926	0.000256	0.015	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-2	0.0214	0.0025	0.1	No	8	37.5	No	0.004	NP (normality)
Nickel (mg/L)	MW-9	0.02554	0.008362	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-10A	0.005701	0.003108	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-20	0.0117	0.00153	0.1	No	8	75	No	0.004	NP (normality)
Nickel (mg/L)	MW-22	0.0161	0.005572	0.1	No	8	25	No	0.01	Param.
Selenium (mg/L)	MW-20	0.0119	0.0012	0.05	No	8	25	No	0.004	NP (normality)
Sulfide (mg/L)	MW-26	1.101	0	1	No	6	66.67	No	0.01	Param.
Zinc (mg/L)	MW-2	0.0202	0.01	2	No	8	87.5	No	0.004	NP (NDs)

Parametric and Non-Parametric (NP) Confidence Interval

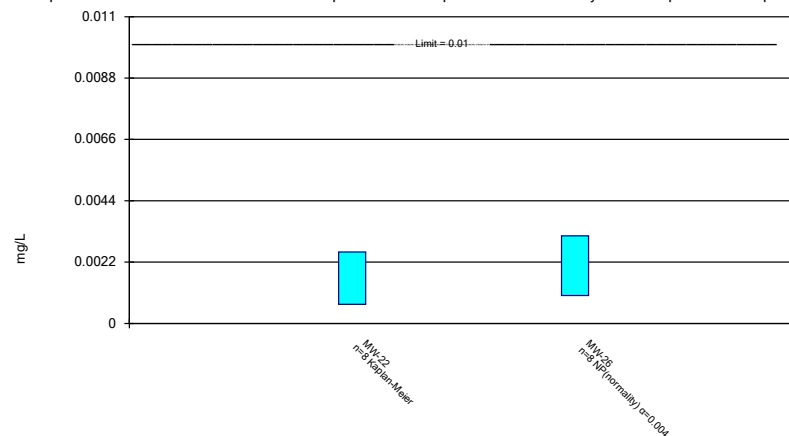
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

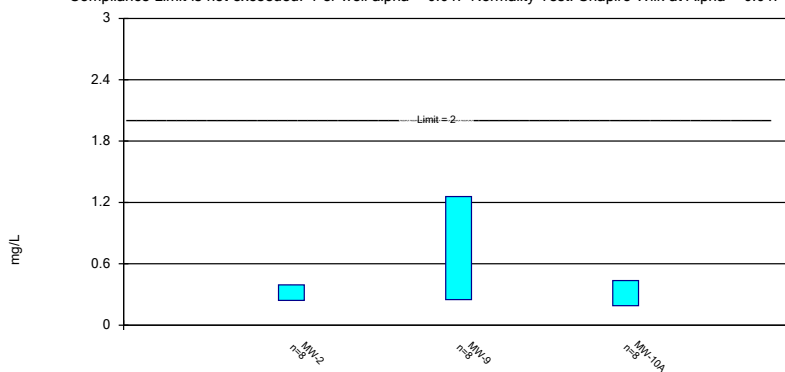
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

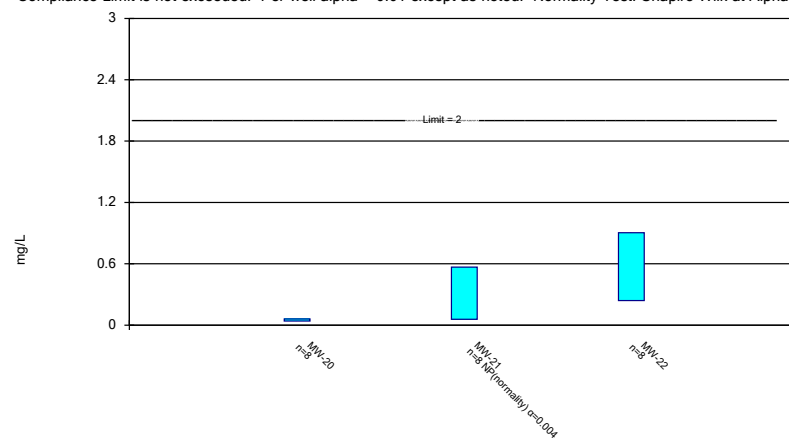
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Constituent: Barium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

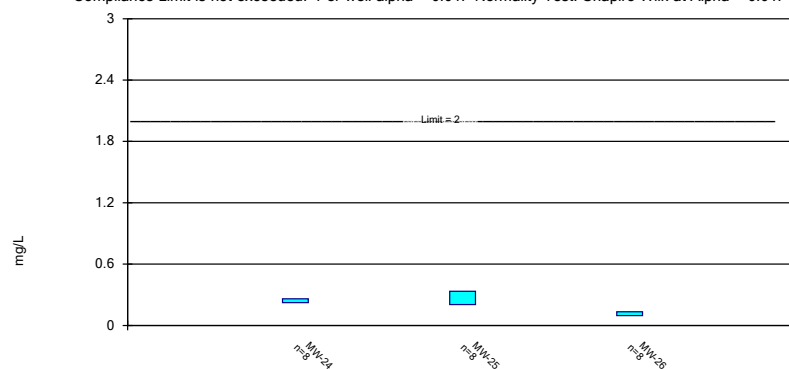
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Constituent: Barium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

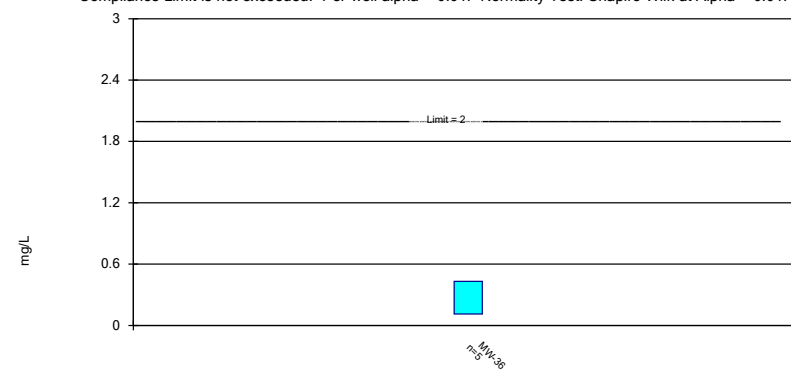
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

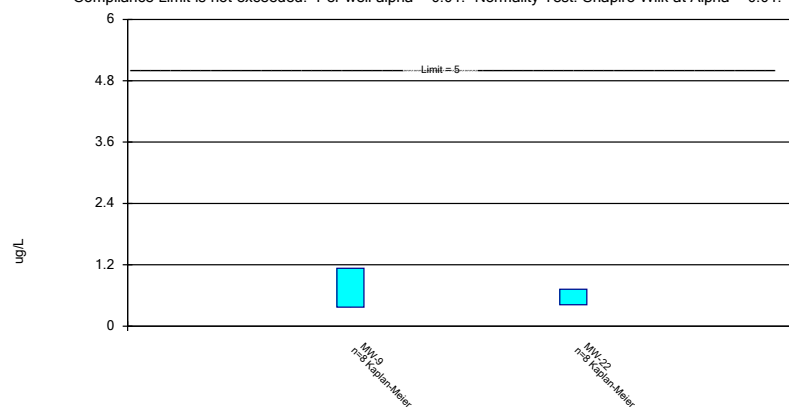
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

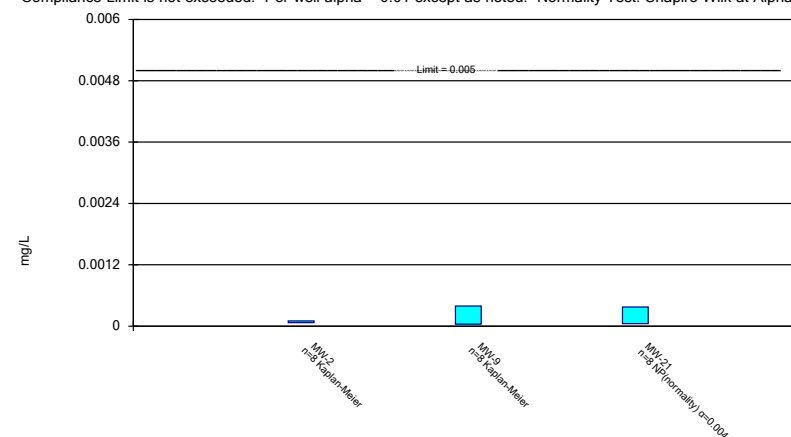
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Benzene Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

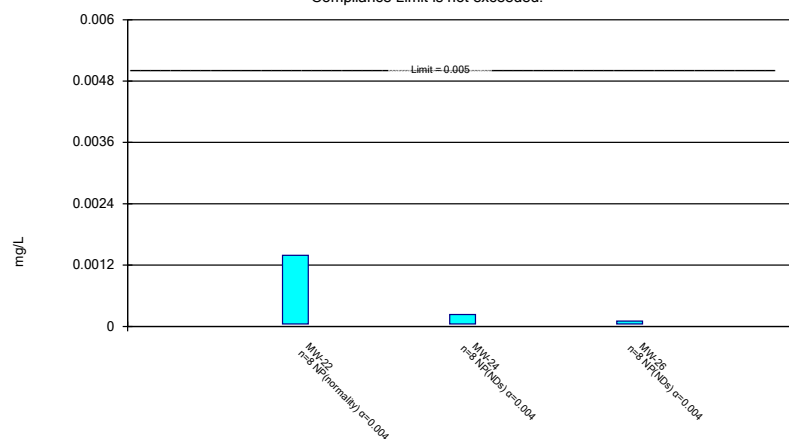
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Non-Parametric Confidence Interval

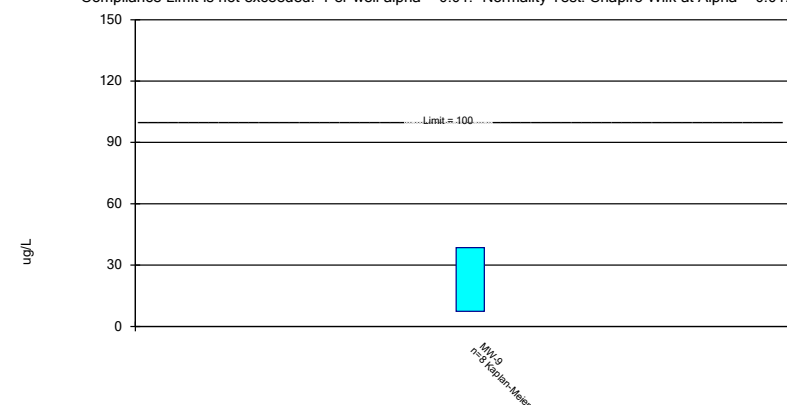
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

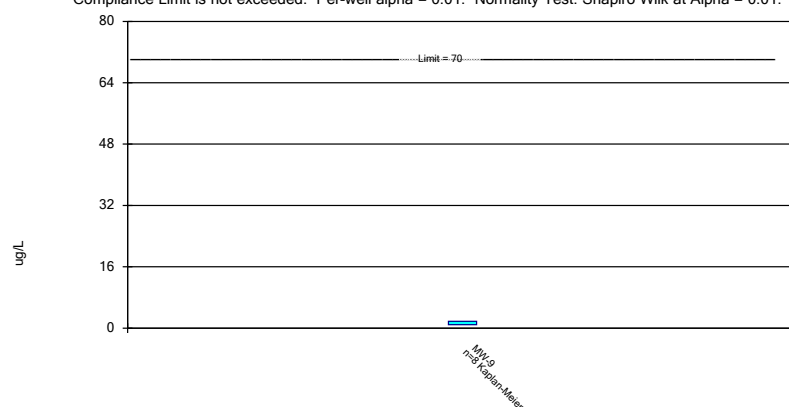
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chlorobenzene Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval_Water
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

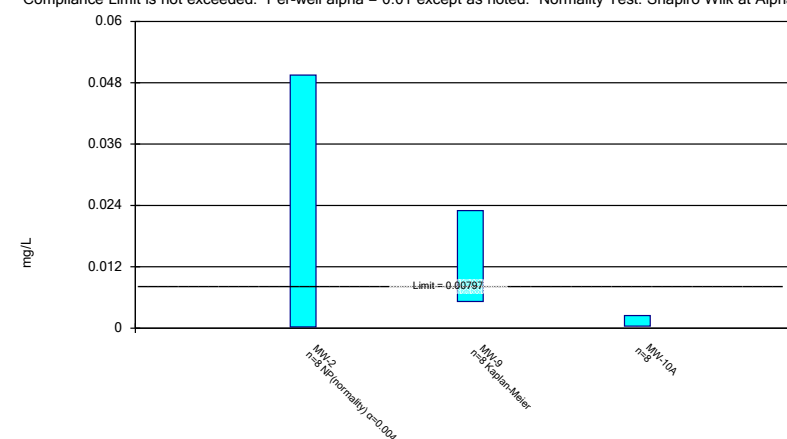
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: cis-1,2-Dichloroethene Analysis Run 5/2/2025 4:04 PM View: 2025_SSN-Confidence_Interval
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

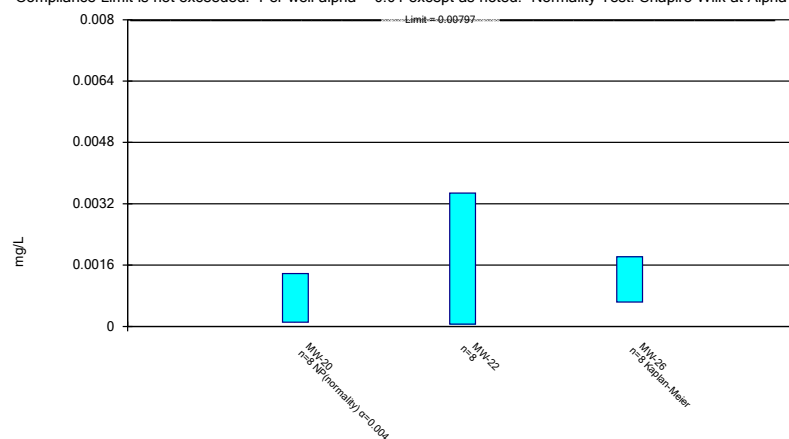
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

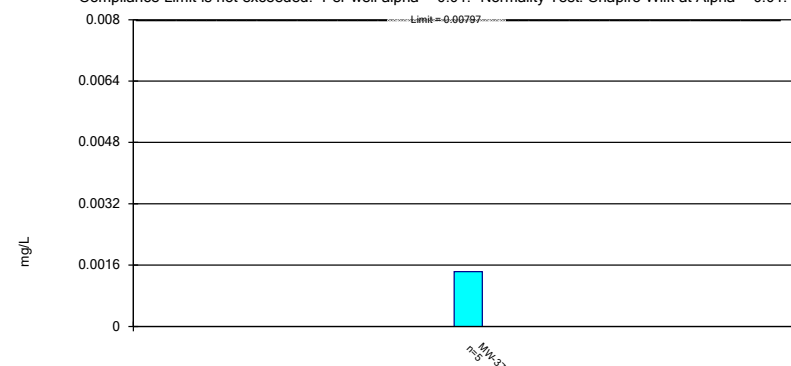
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

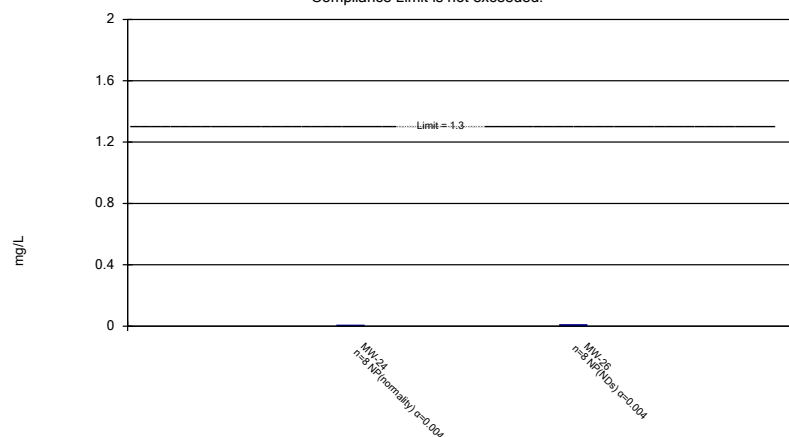
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Non-Parametric Confidence Interval

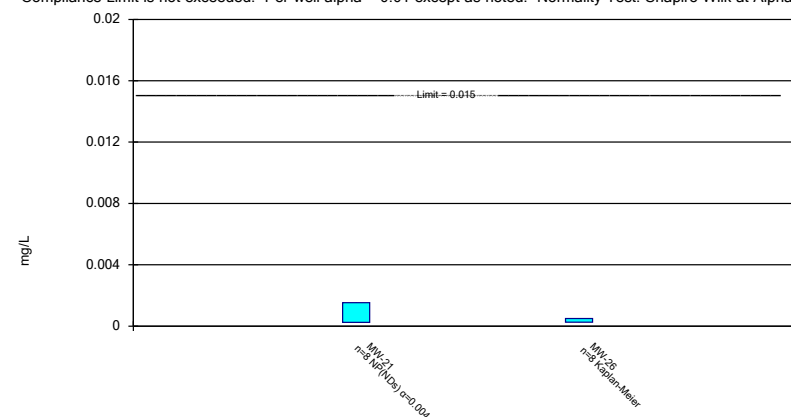
Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

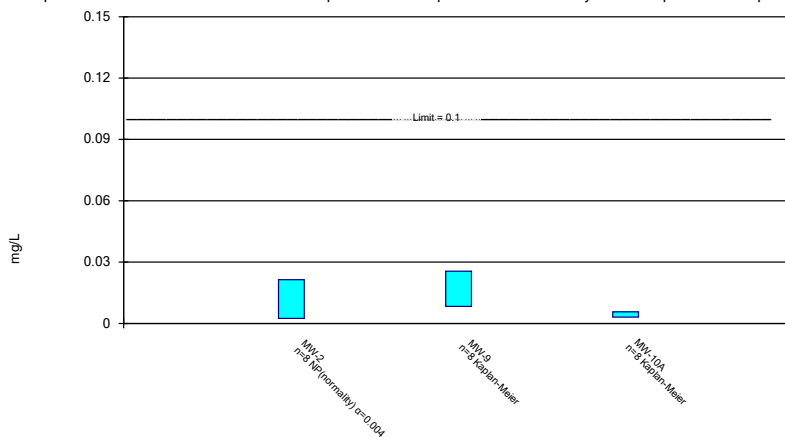
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lead Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

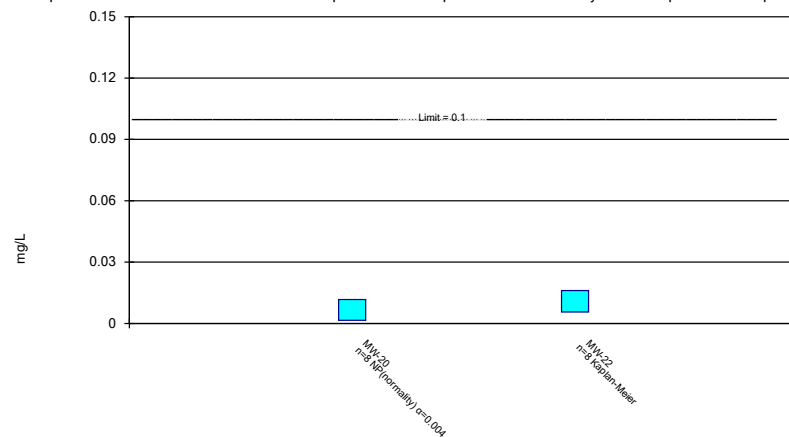
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Nickel Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric and Non-Parametric (NP) Confidence Interval

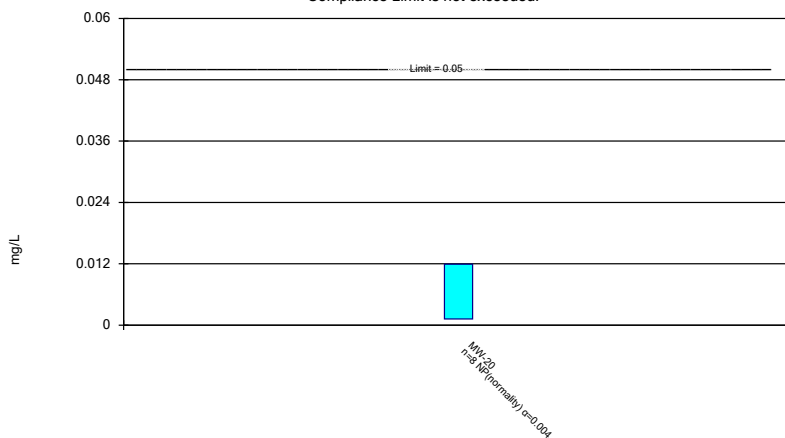
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Nickel Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Non-Parametric Confidence Interval

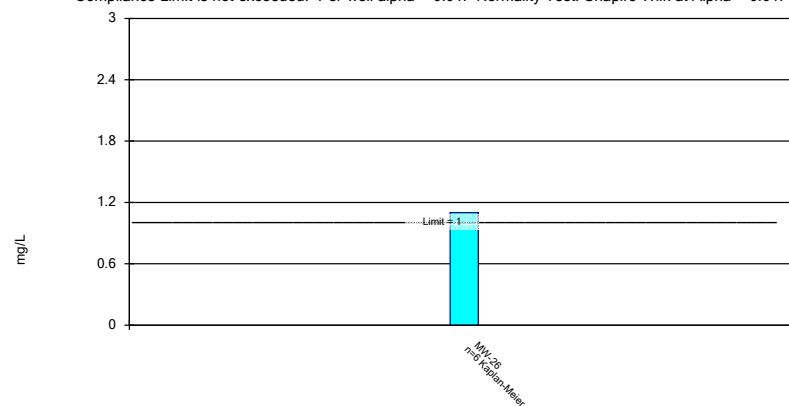
Compliance Limit is not exceeded.



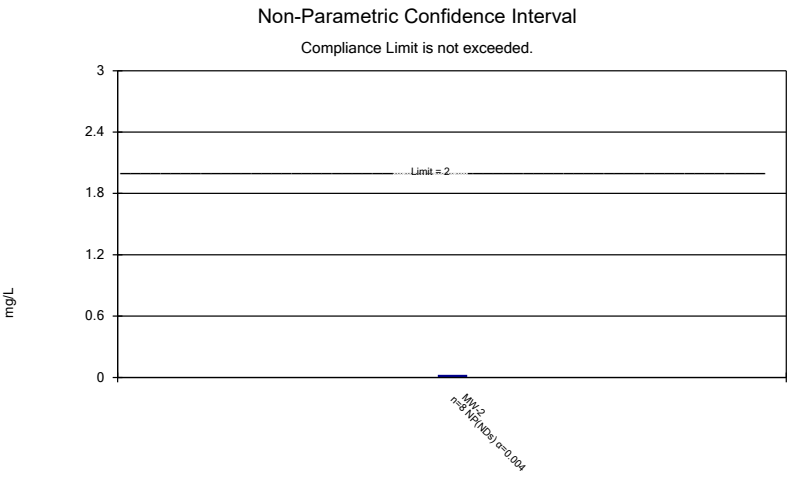
Constituent: Selenium Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Sulfide Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Zinc Analysis Run 5/2/2025 4:05 PM View: 2025_SSN-Confidence_Interval_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Bedrock Confidence Interval

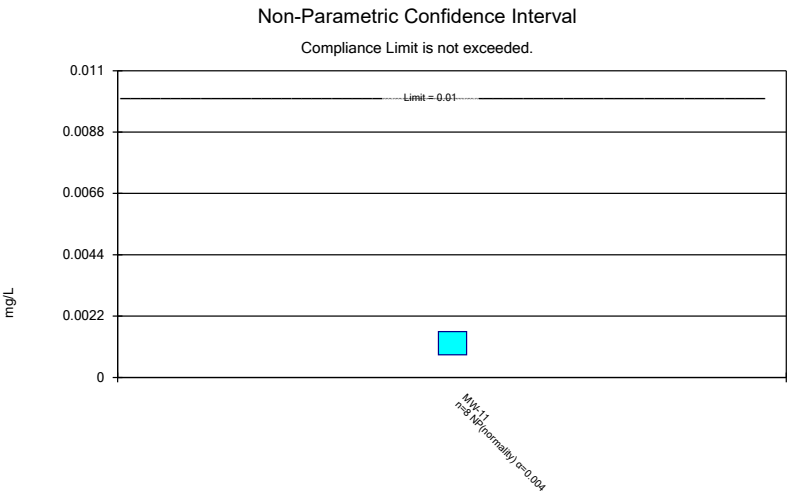
Muscatine County SLF

Client: SCS Engineers

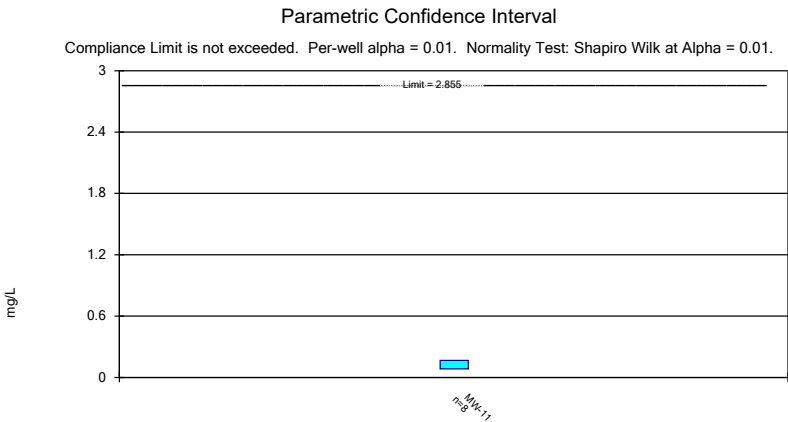
Data: Muscatine-2025_SSN-AM

Printed 5/2/2025, 3:39 PM

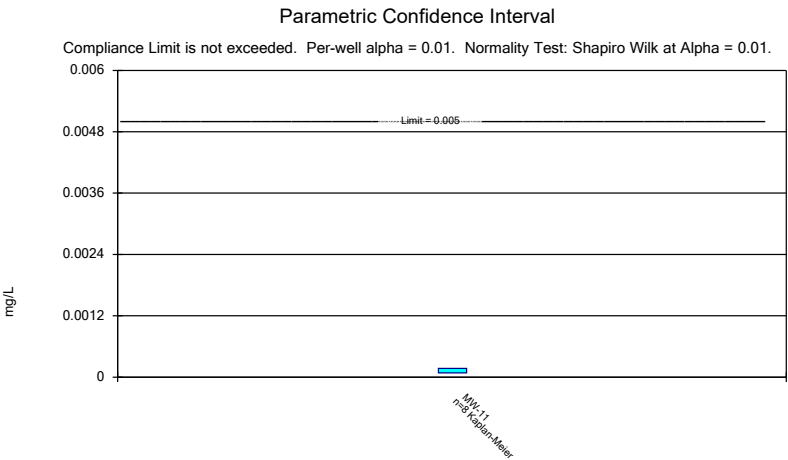
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-11	0.001645	0.000814	0.01	No	8	62.5	No	0.004	NP (normality)
Barium (mg/L)	MW-11	0.1665	0.08409	2.855	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-11	0.0001716	0.00008252	0.005	No	8	75	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-11	3.381	0.1721	70	No	8	37.5	No	0.01	Param.
Cobalt (mg/L)	MW-11	0.0034	0.000184	0.00972	No	8	12.5	No	0.004	NP (normality)
Nickel (mg/L)	MW-11	0.00653	0.0025	0.1	No	8	50	No	0.004	NP (normality)
Vinyl Chloride (ug/L)	MW-13	3.054	1.308	2	No	8	0	No	0.01	Param.



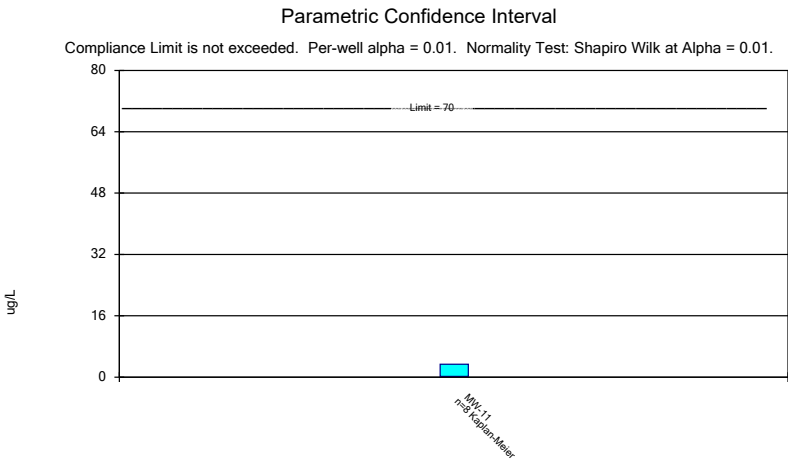
Constituent: Arsenic Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedrock
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



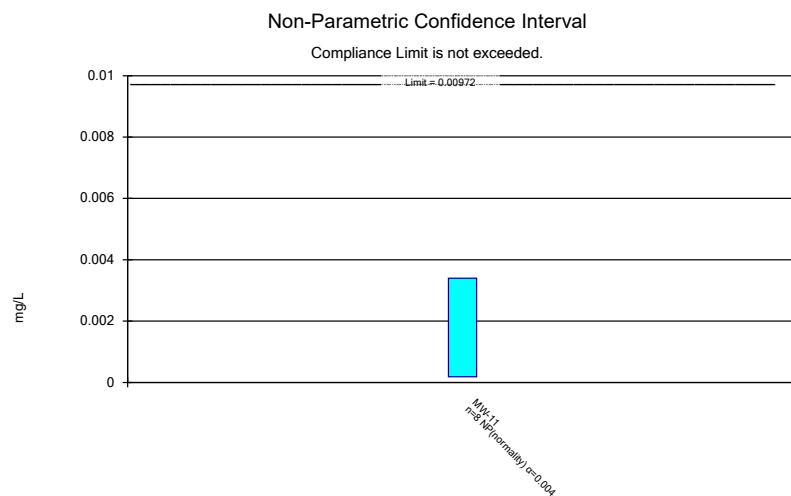
Constituent: Barium Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedrock
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



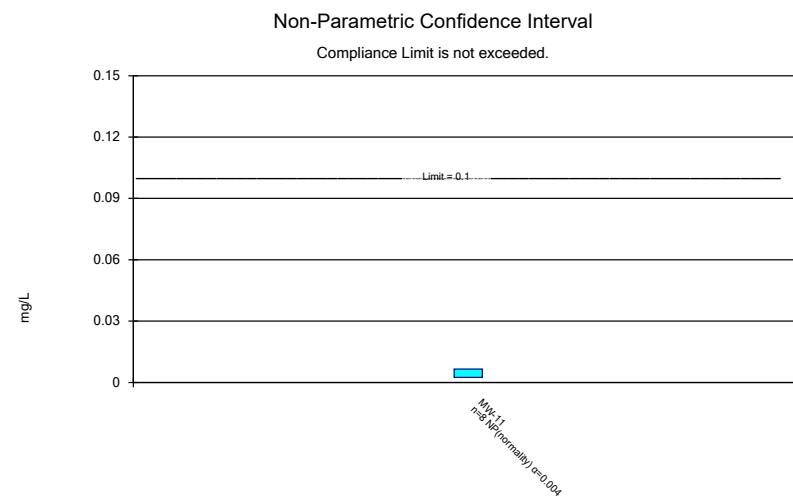
Constituent: Cadmium Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedrock
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



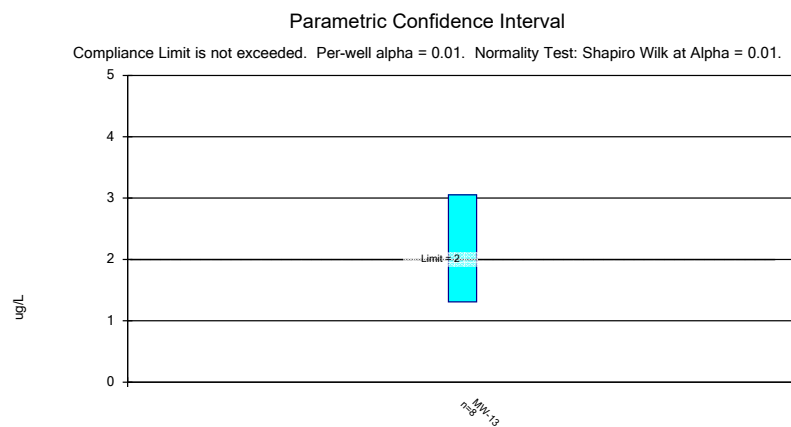
Constituent: cis-1,2-Dichloroethene Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Cobalt Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedrock
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



Constituent: Nickel Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedrock
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM



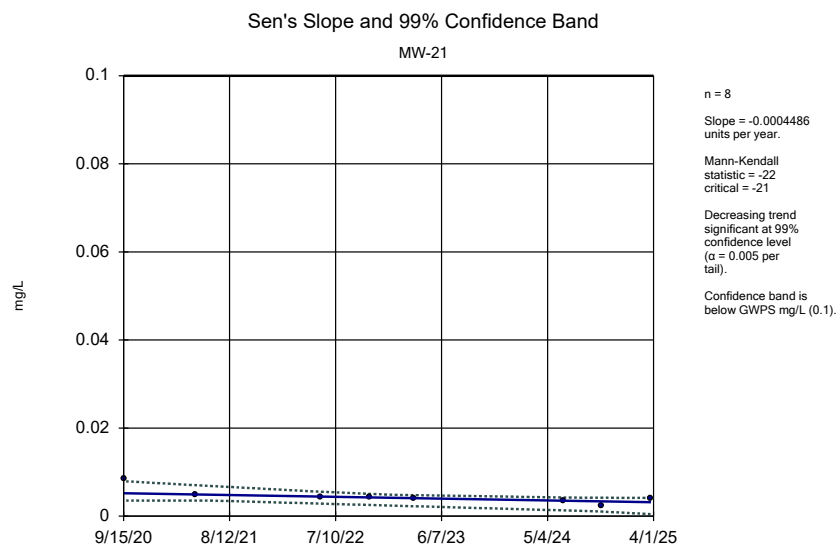
Constituent: Vinyl Chloride Analysis Run 5/2/2025 3:35 PM View: 2025_SSN-Confidence_Interval_Bedroc
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Theil-Sen Confidence Band Summary Table and Graphs

WaterTable Theil Sen/Trend Test

Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM Printed 5/2/2025, 4:20 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Nickel (mg/L)	MW-21	-0.0004486	-22	-21	Yes	8	0	0.01	NP

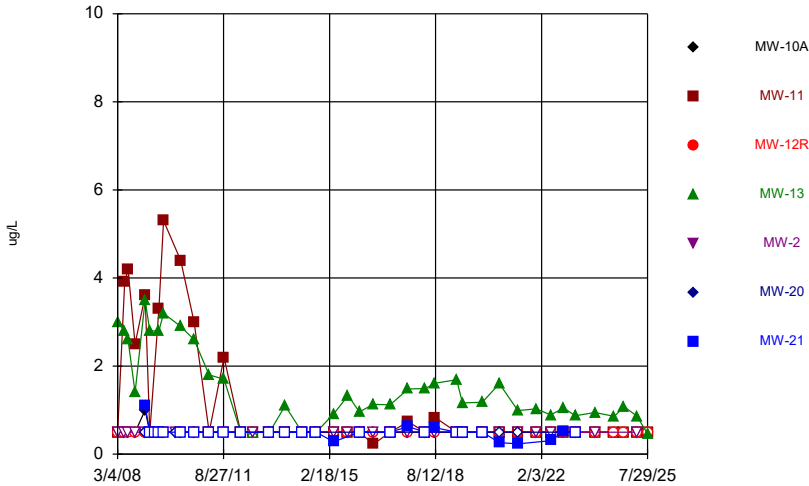


Constituent: Nickel Analysis Run 5/2/2025 4:19 PM View: 2025_SSN-Theil_Sen_WaterTable
Muscatine County SLF Client: SCS Engineers Data: Muscatine-2025_SSN-AM

Attachment B
2nd 2025 Semi-Annual Statistical Output

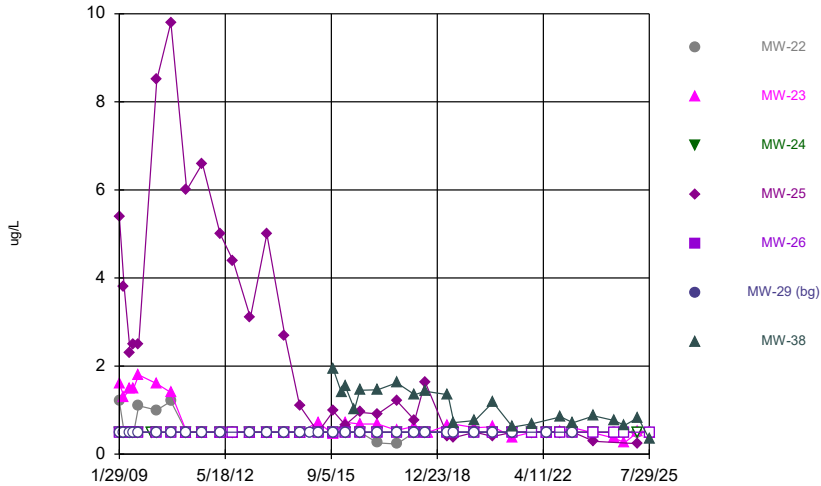
Time Series Plots

Time Series



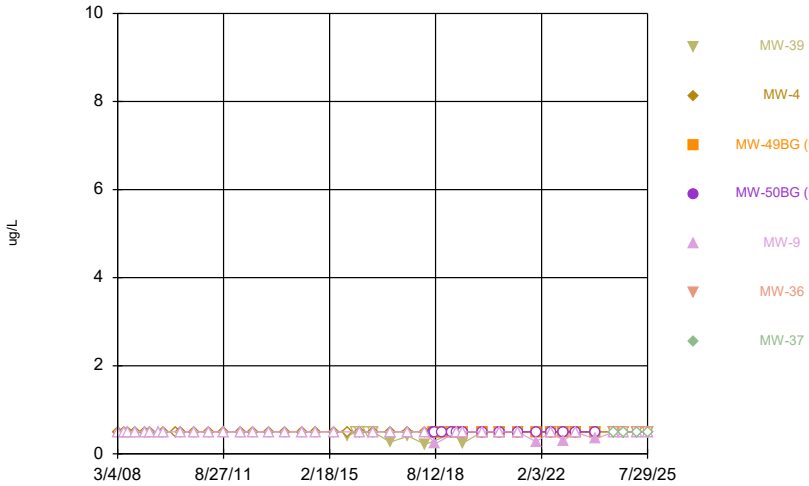
Constituent: 1,1-Dichloroethane Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



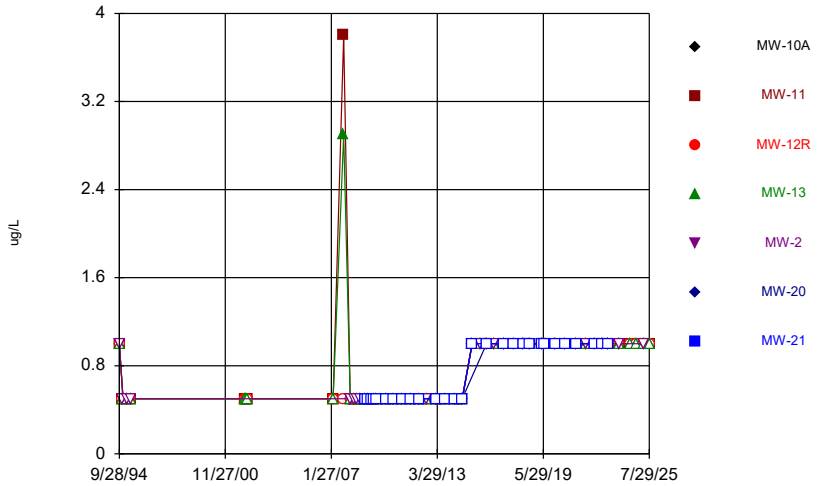
Constituent: 1,1-Dichloroethane Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



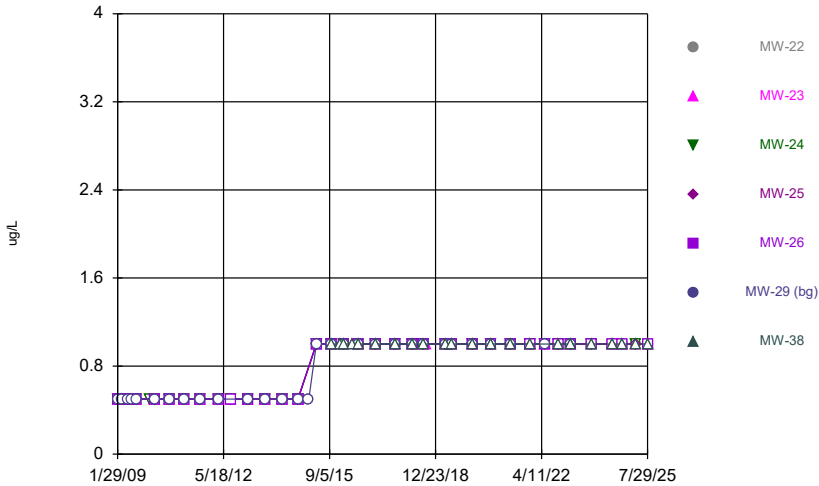
Constituent: 1,1-Dichloroethane Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

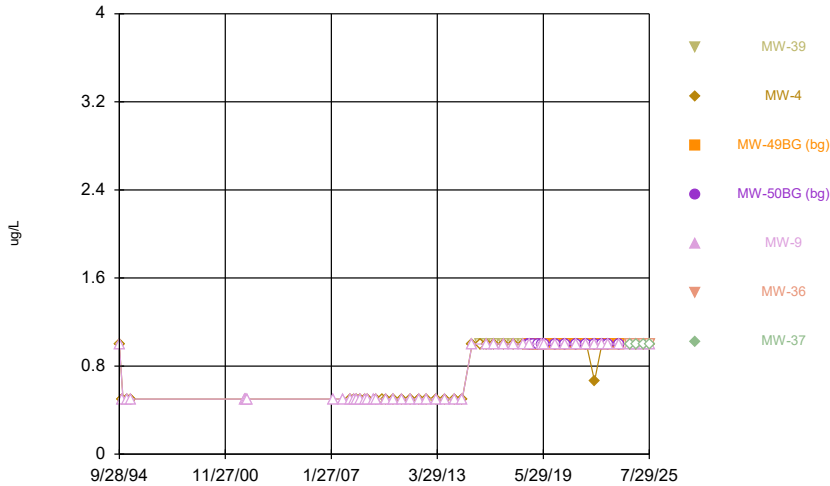


Constituent: 1,1-Dichloroethane Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

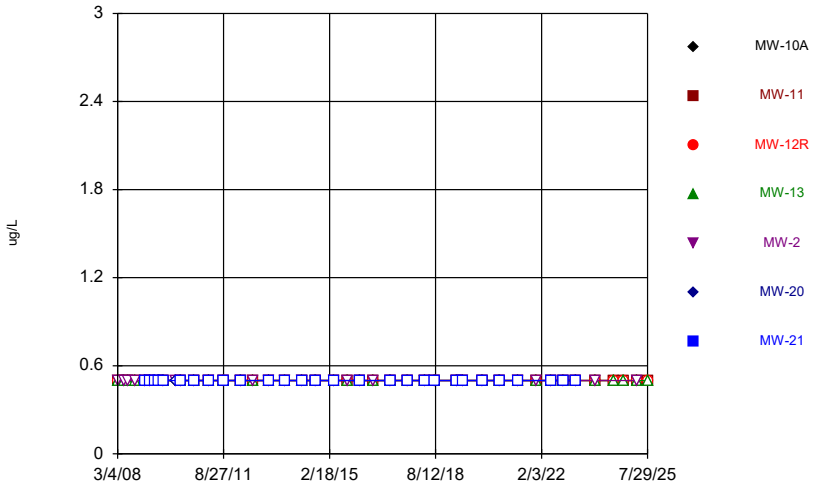
Time Series



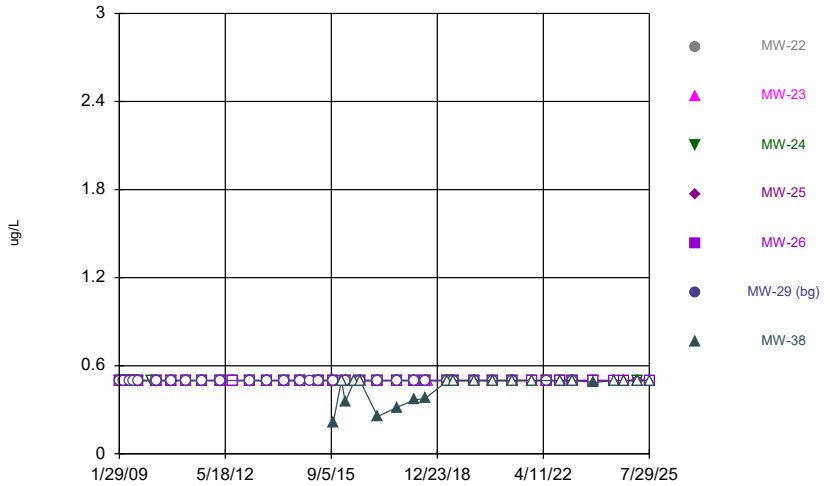
Time Series



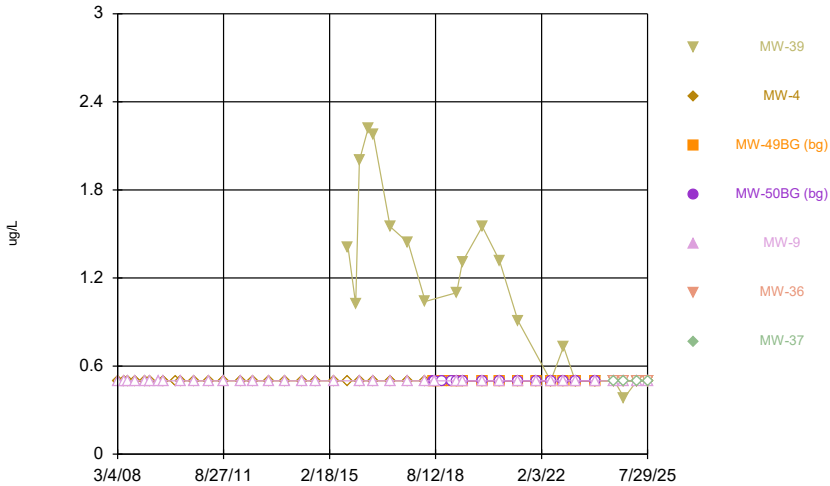
Time Series



Time Series

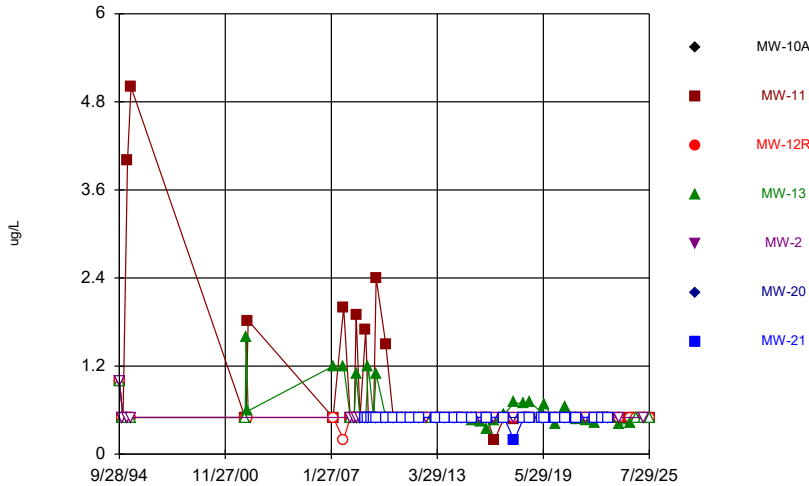


Time Series



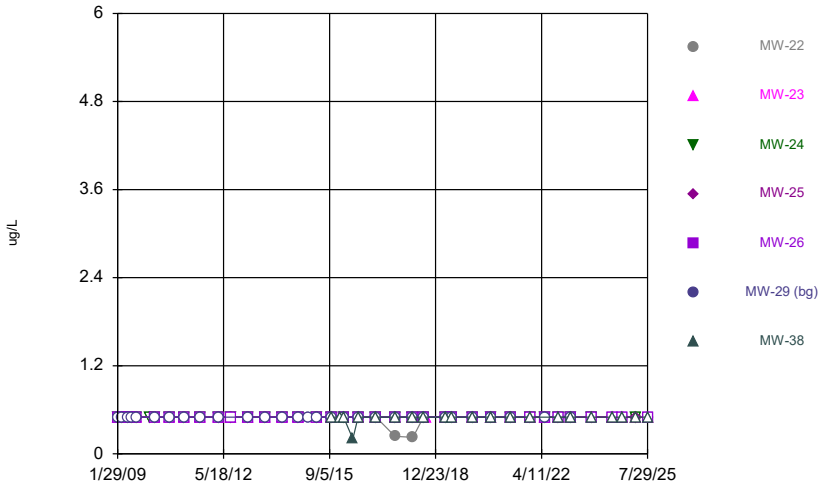
Constituent: 1,2-Dichlorobenzene Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



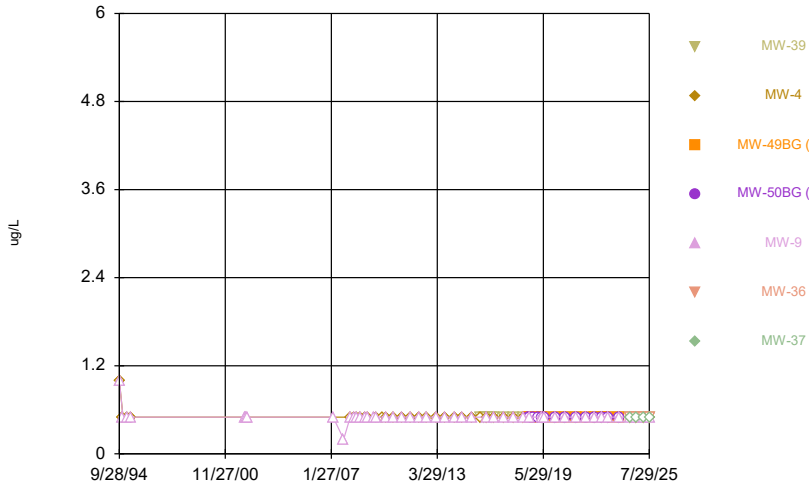
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



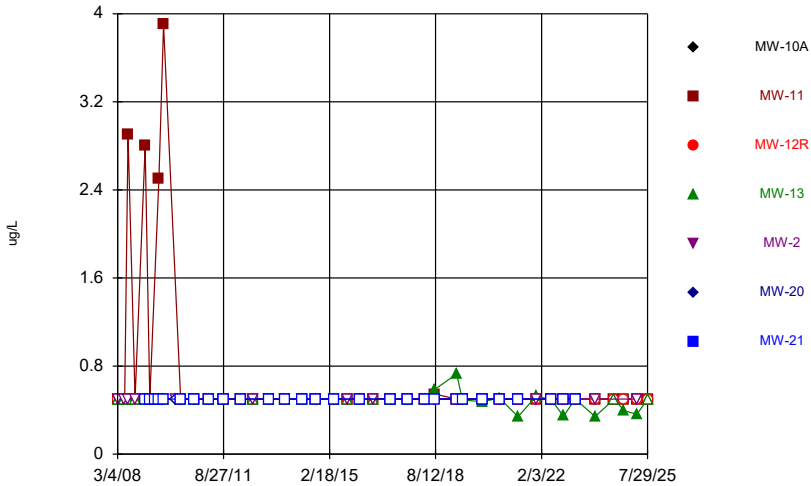
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



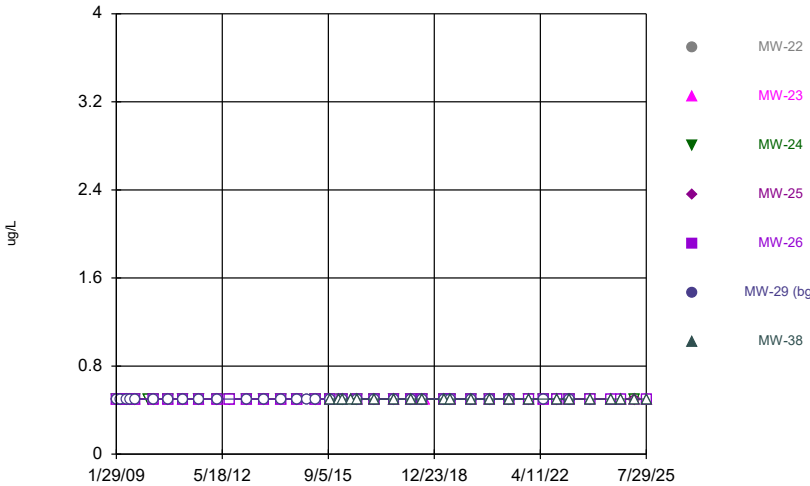
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



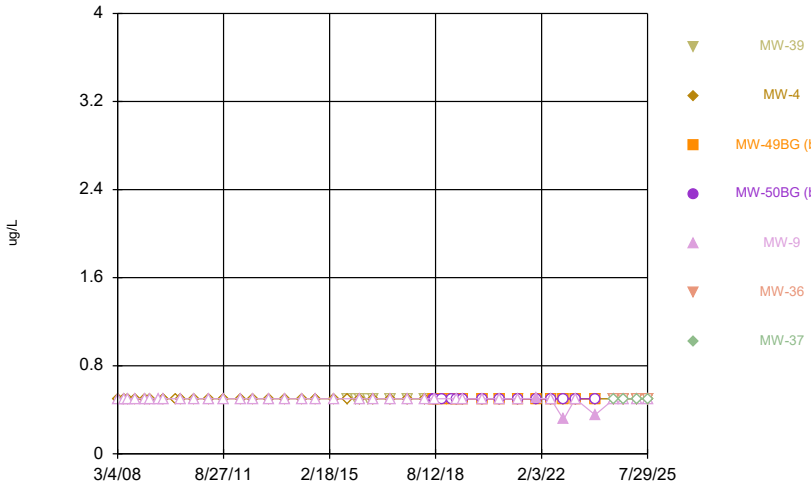
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



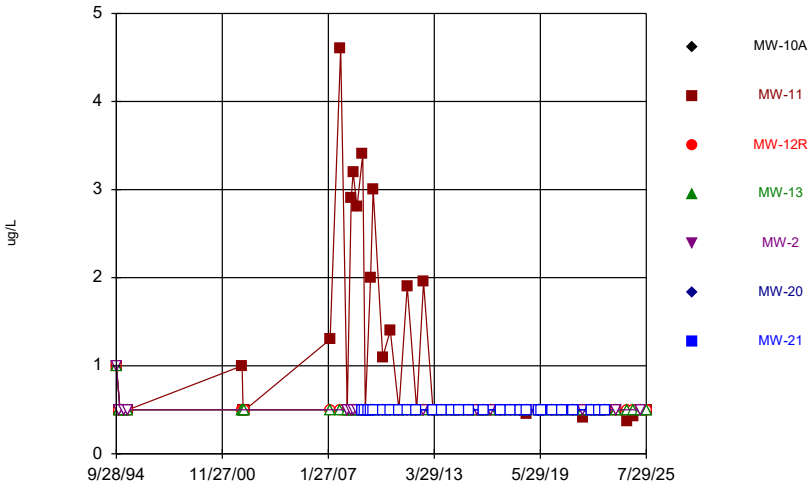
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



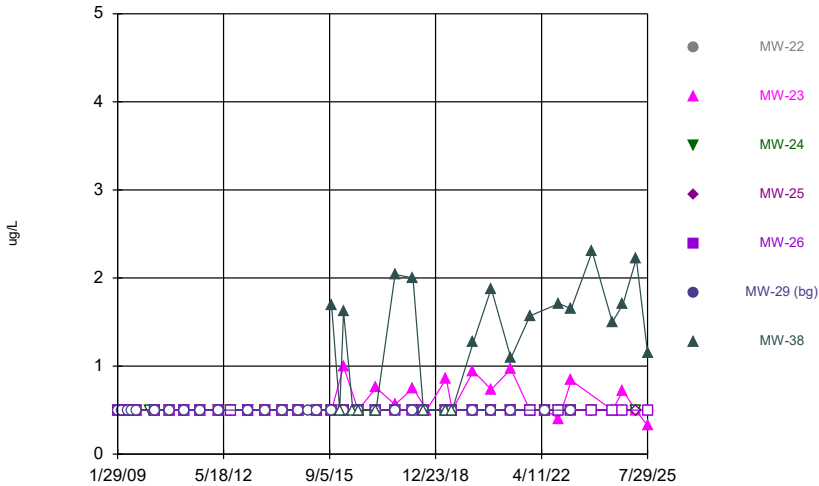
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



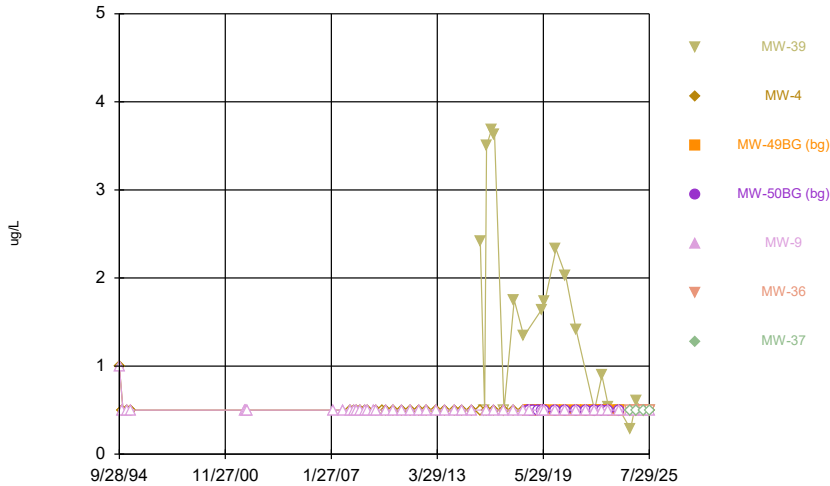
Constituent: 1,4-Dichlorobenzene Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



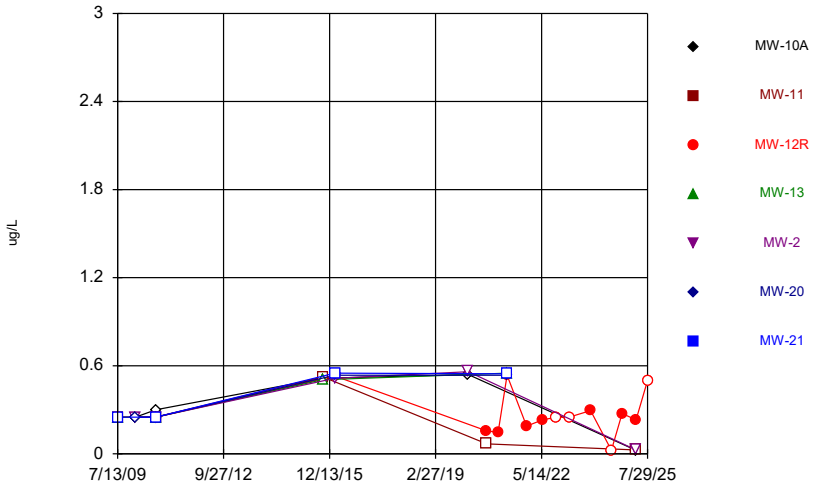
Constituent: 1,4-Dichlorobenzene Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



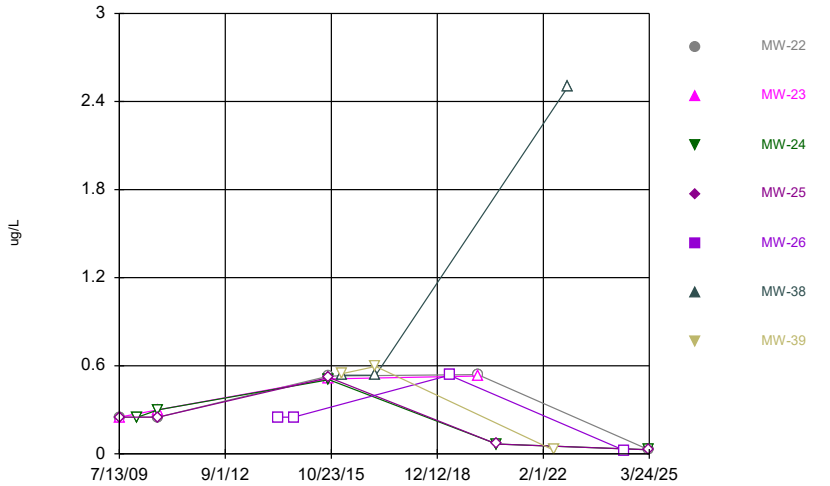
Constituent: 1,4-Dichlorobenzene Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



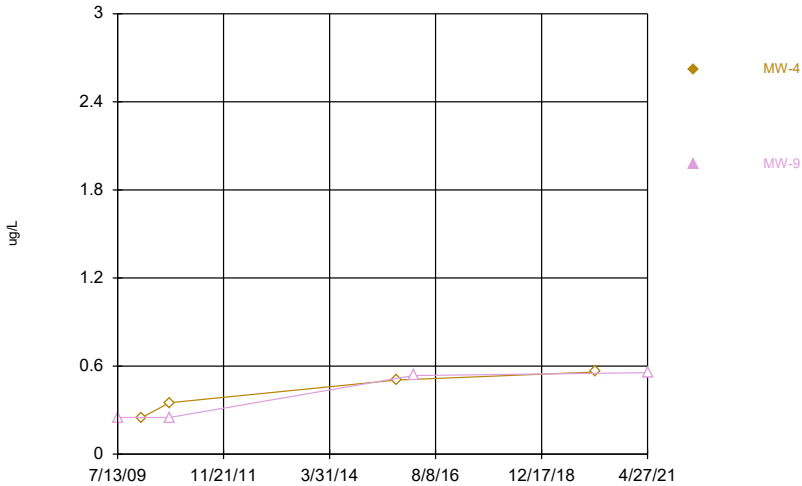
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



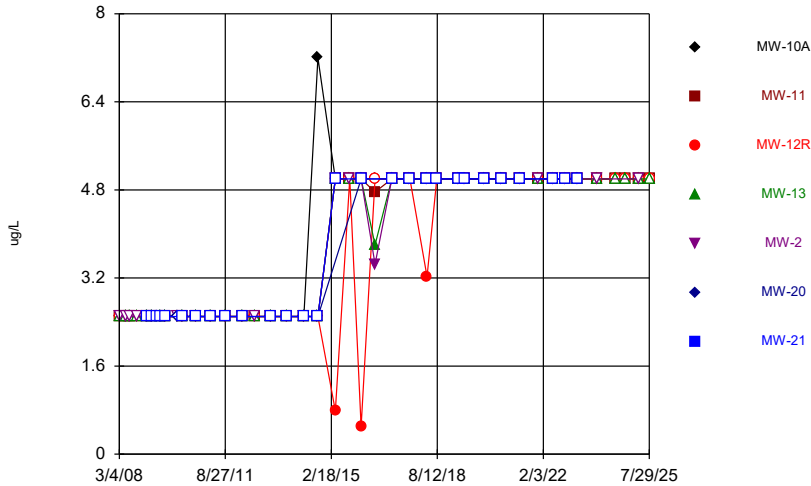
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



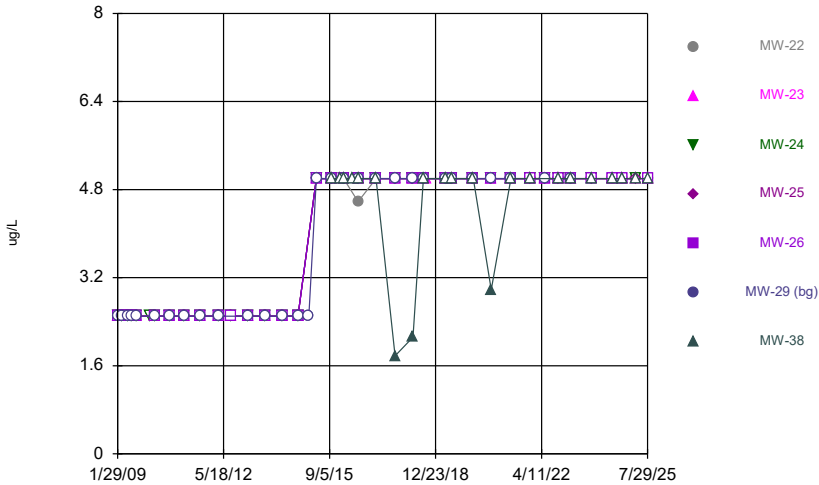
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



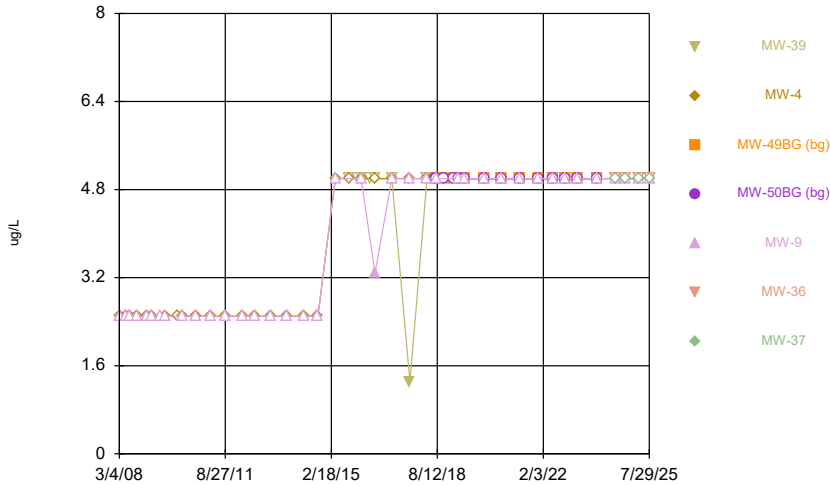
Constituent: 2-Butanone Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



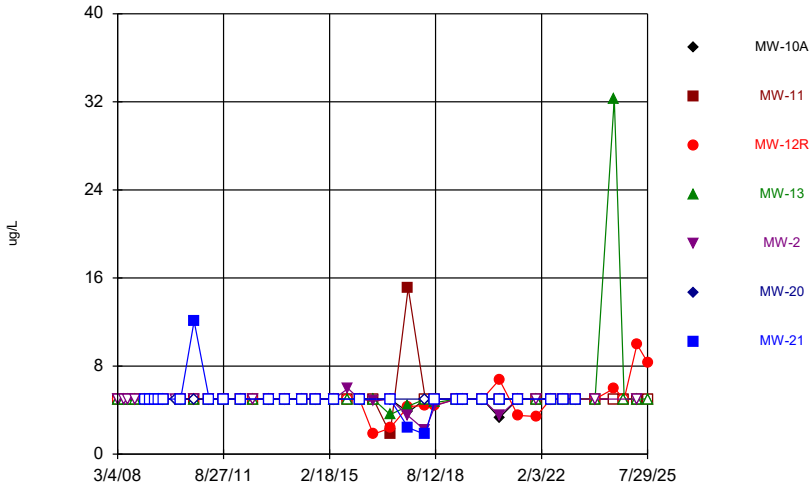
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



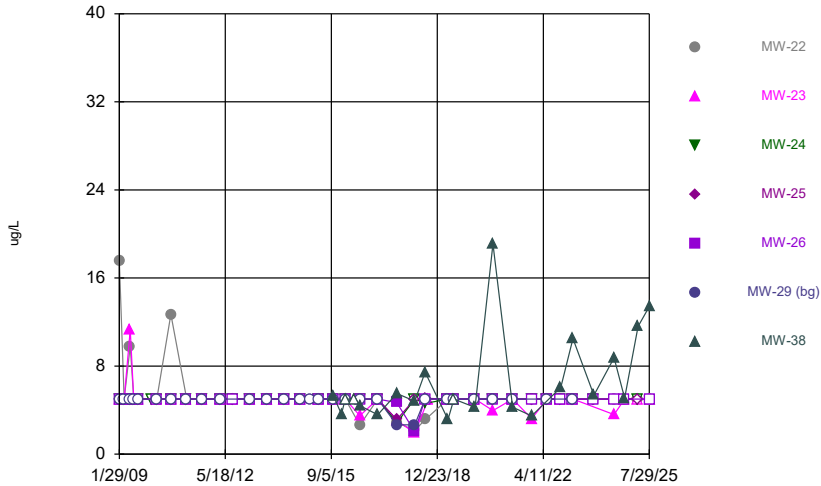
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



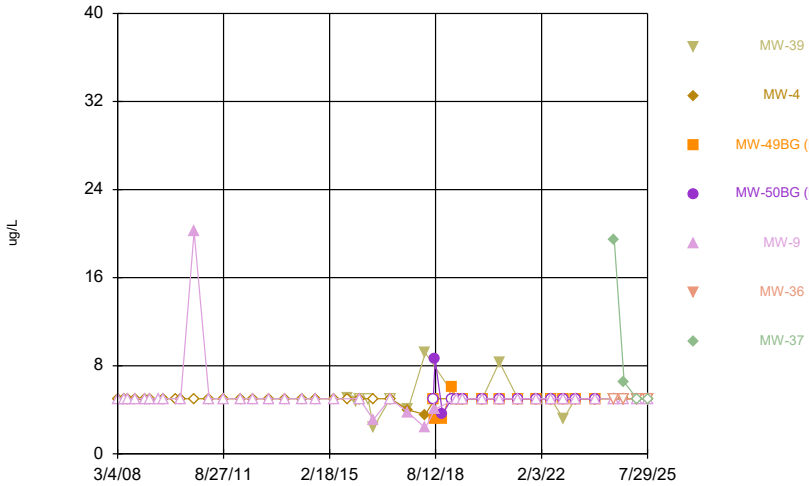
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



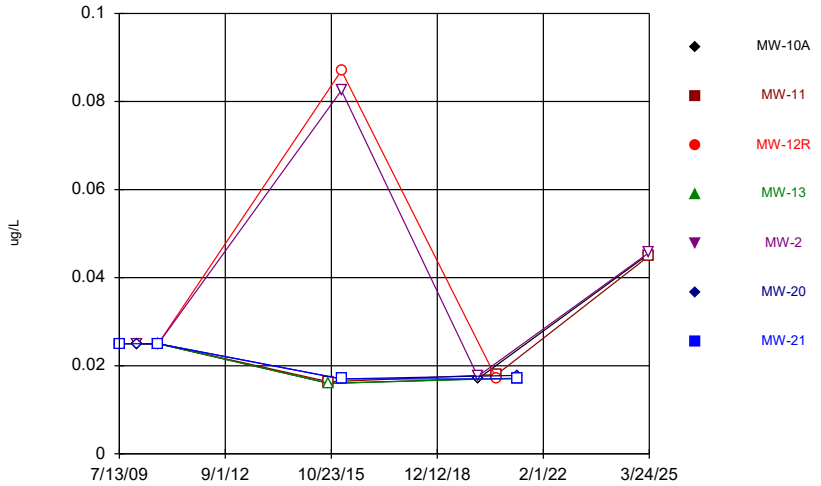
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



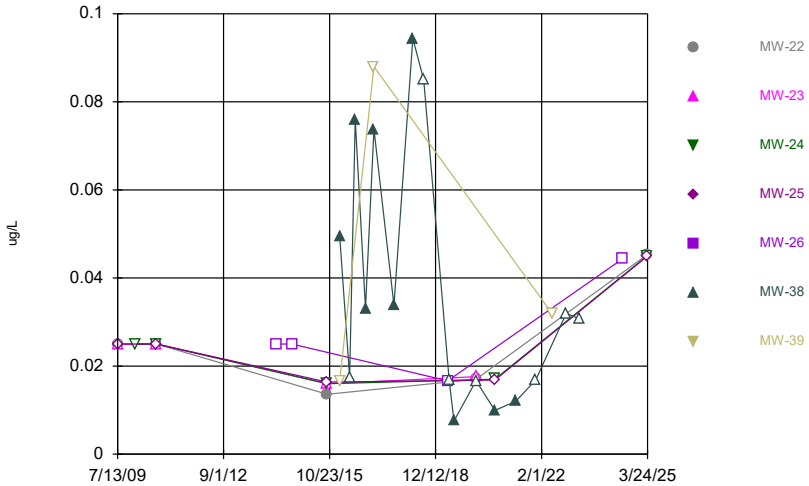
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



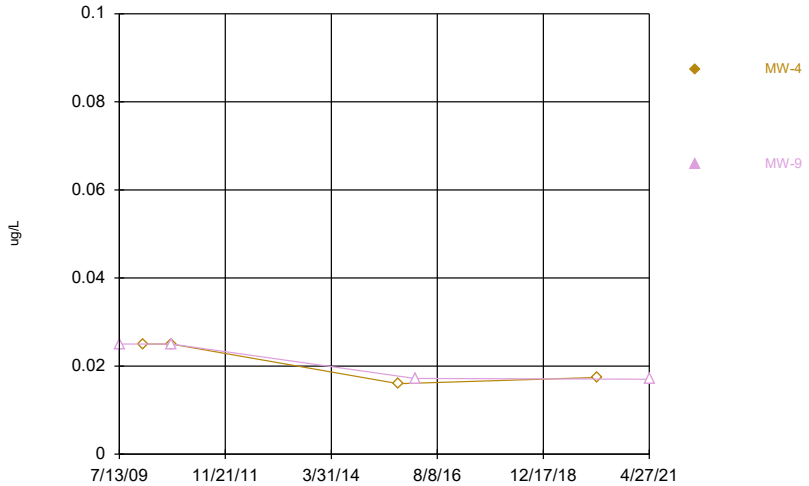
Constituent: Aldrin Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



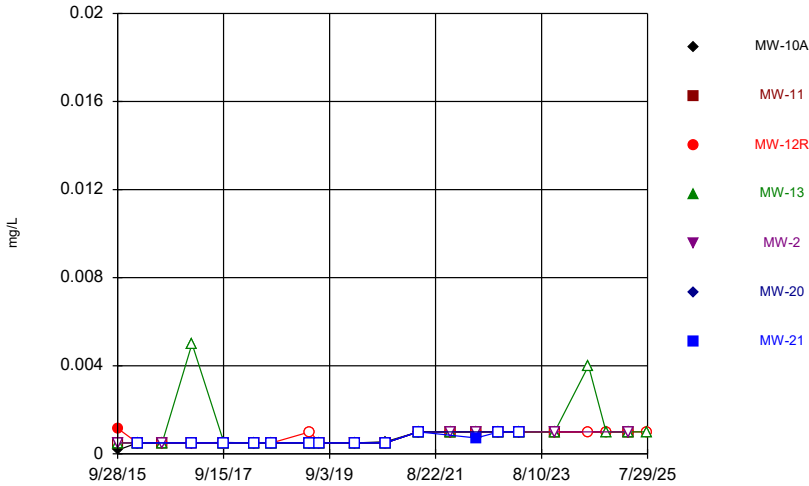
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



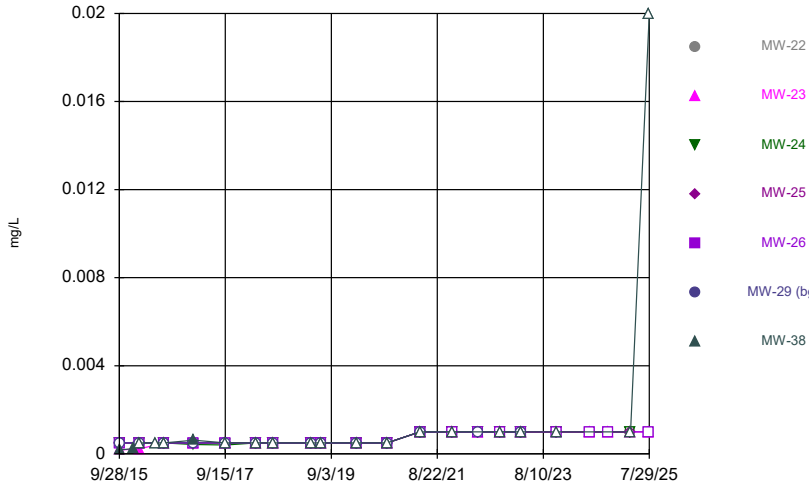
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



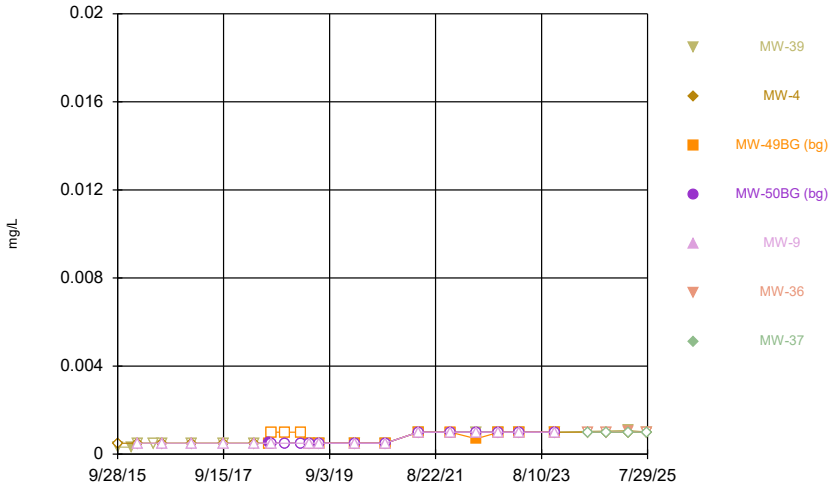
Constituent: Antimony Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



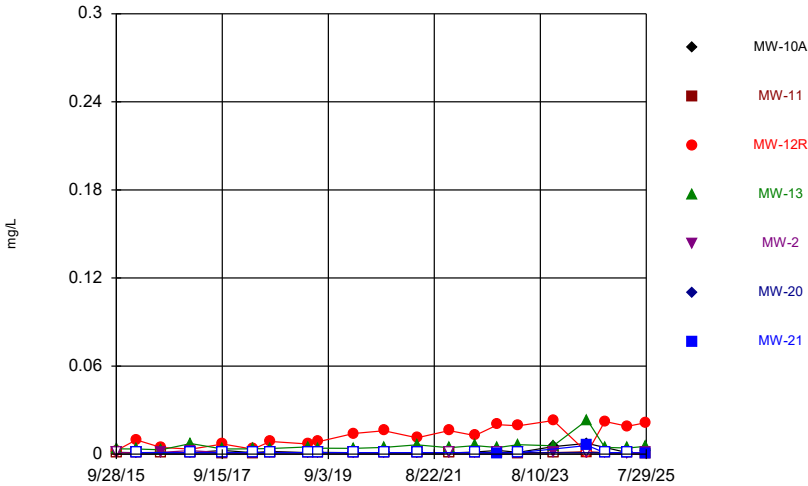
Constituent: Antimony Analysis Run 1/26/2026 2:56 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



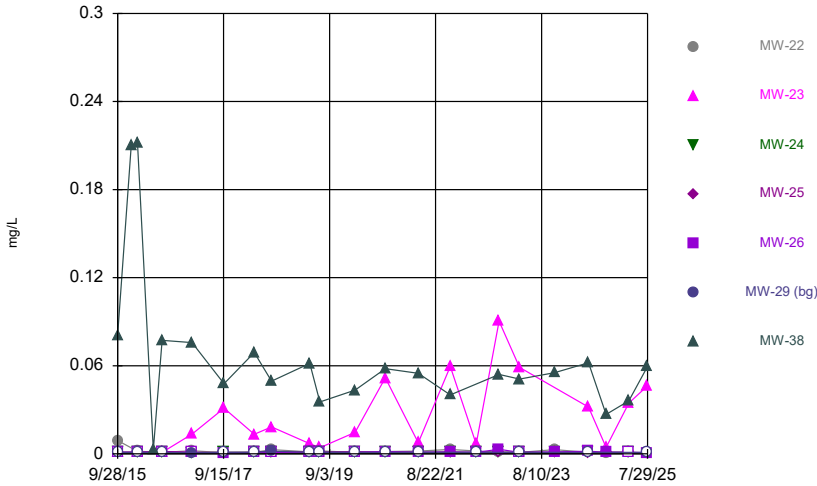
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



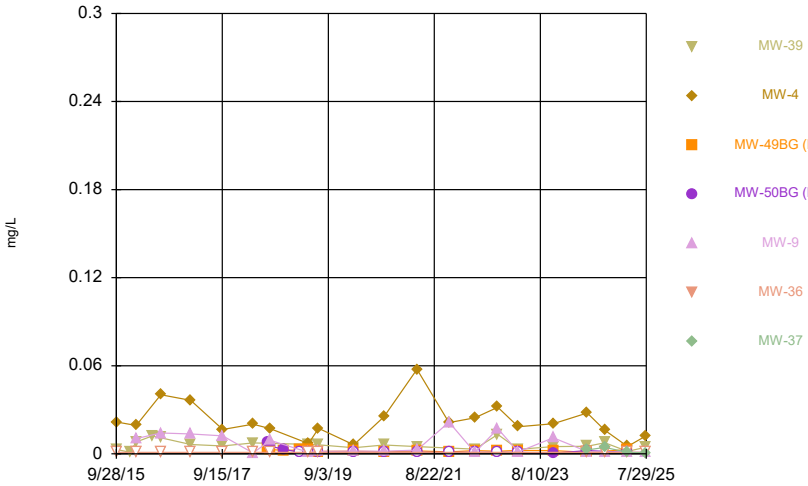
Constituent: Arsenic Analysis Run 1/26/2026 2:57 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



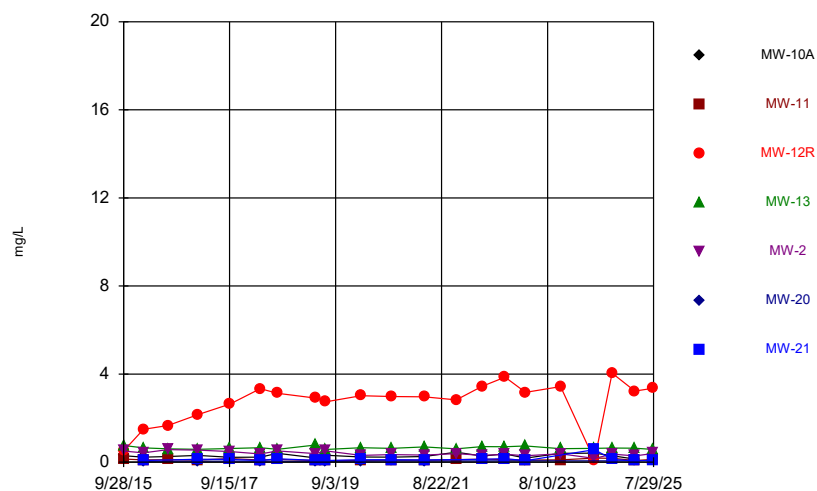
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



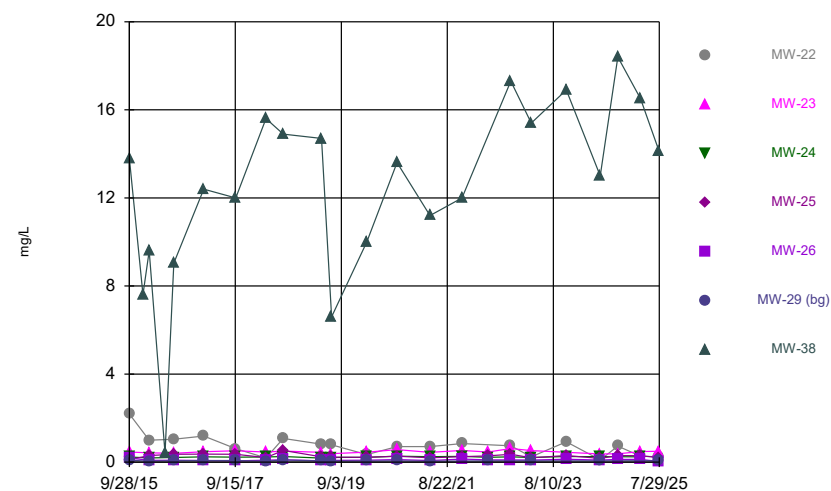
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



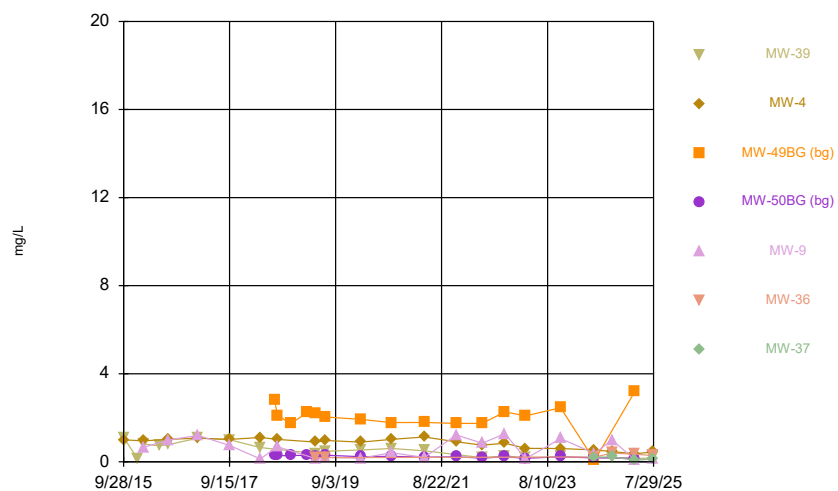
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



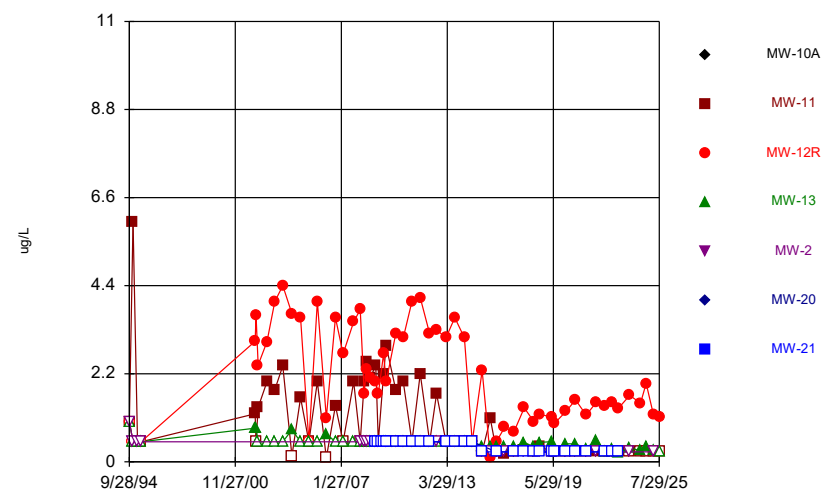
Constituent: Barium Analysis Run 1/26/2026 2:57 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



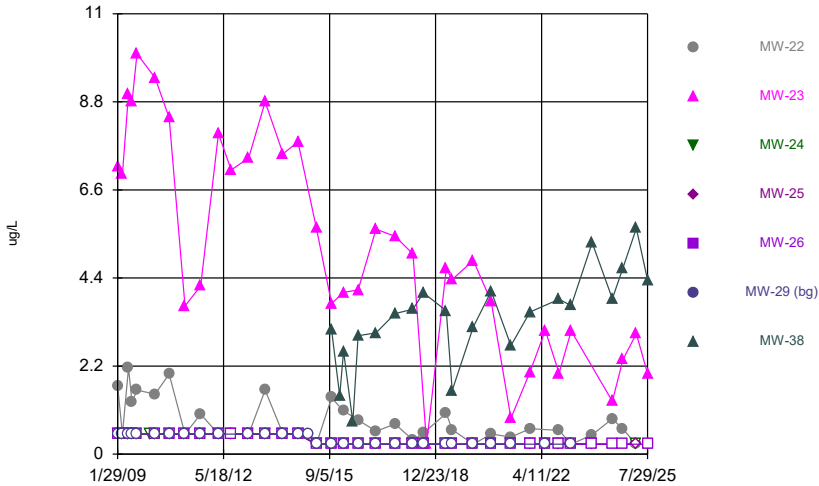
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



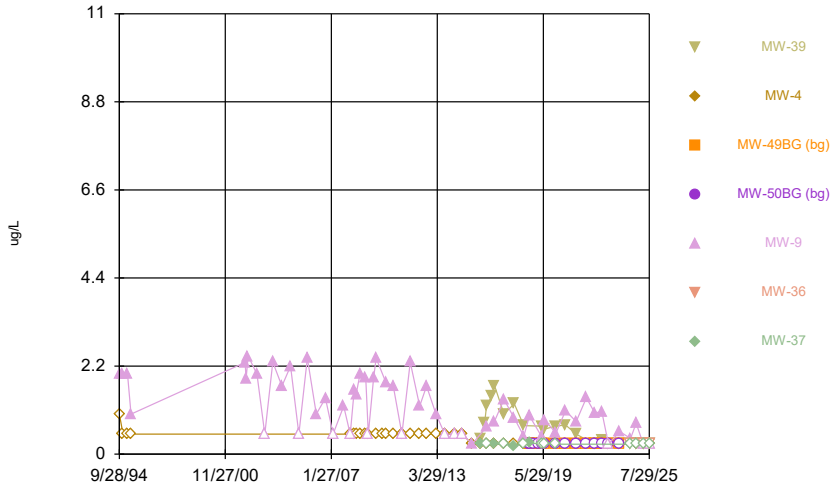
Constituent: Benzene Analysis Run 1/26/2026 2:57 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



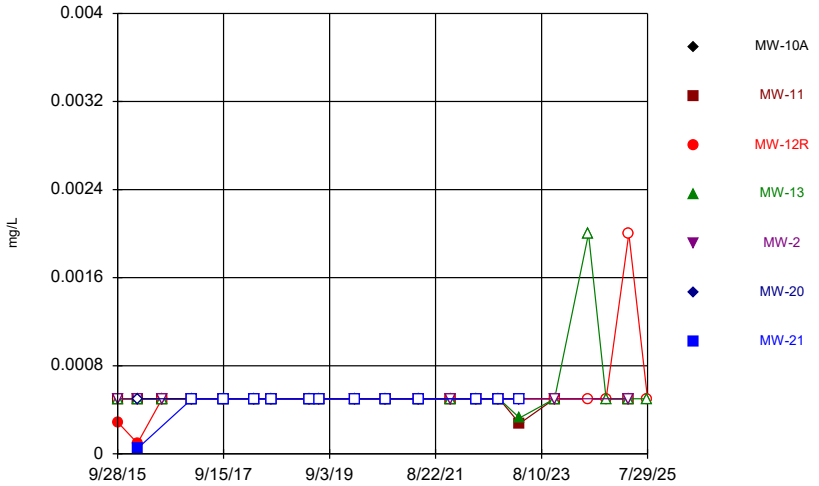
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



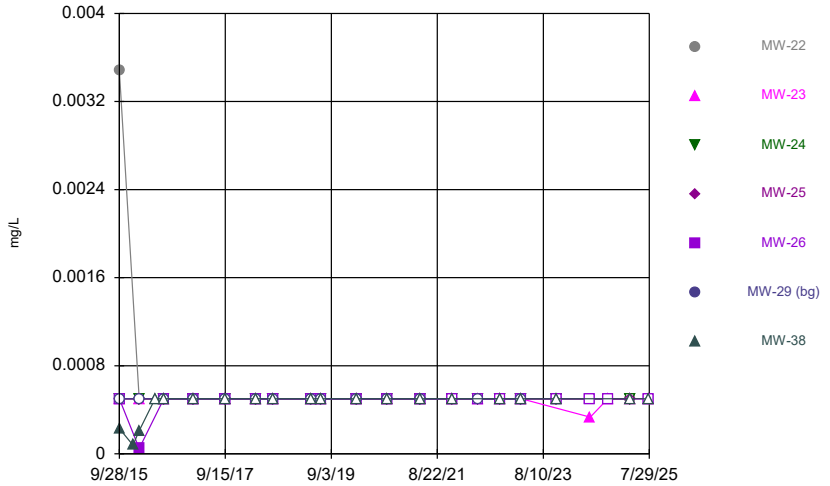
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



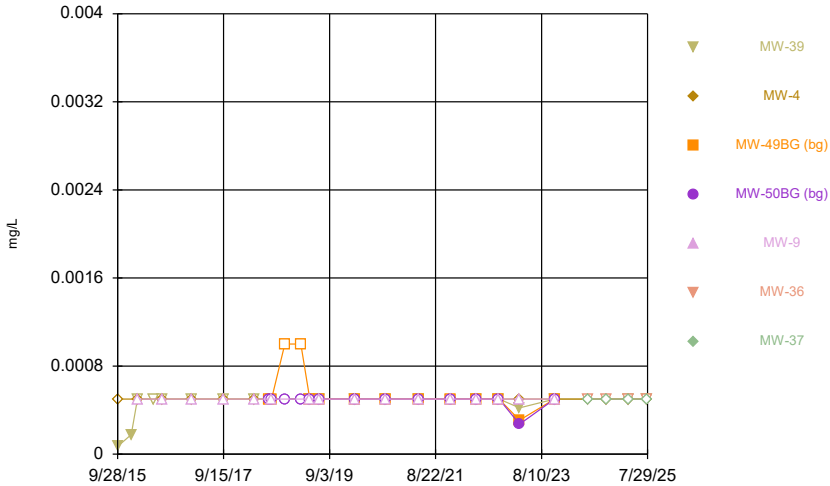
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

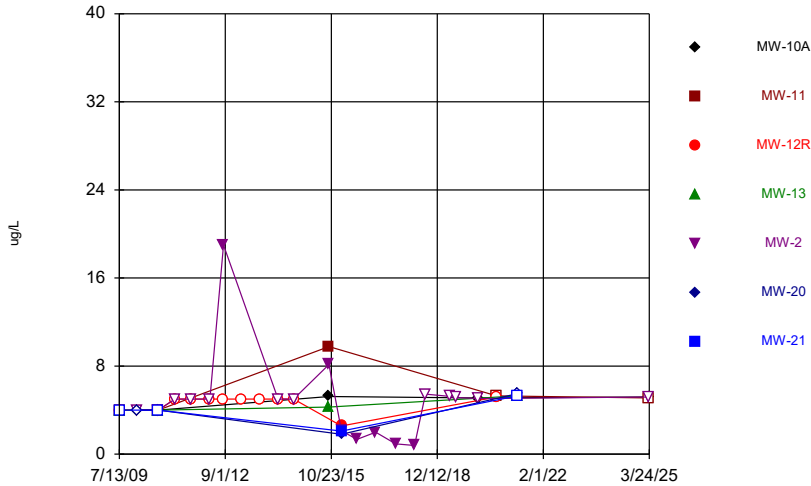


Constituent: Beryllium Analysis Run 1/26/2026 2:57 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

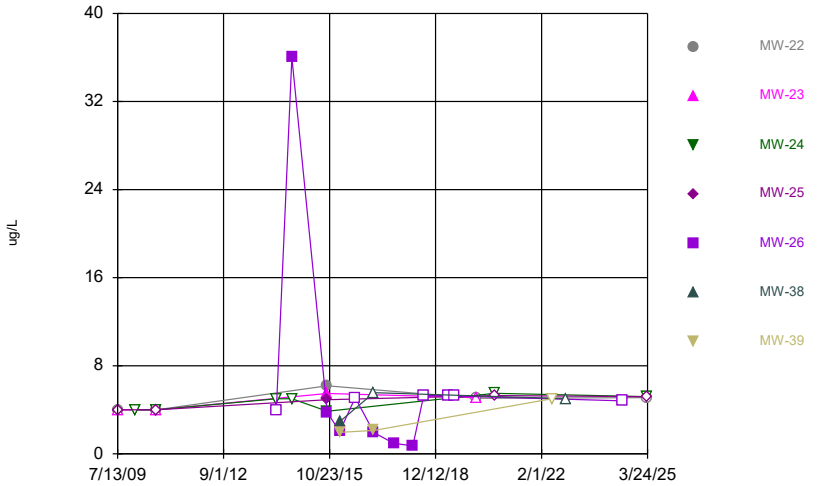
Time Series



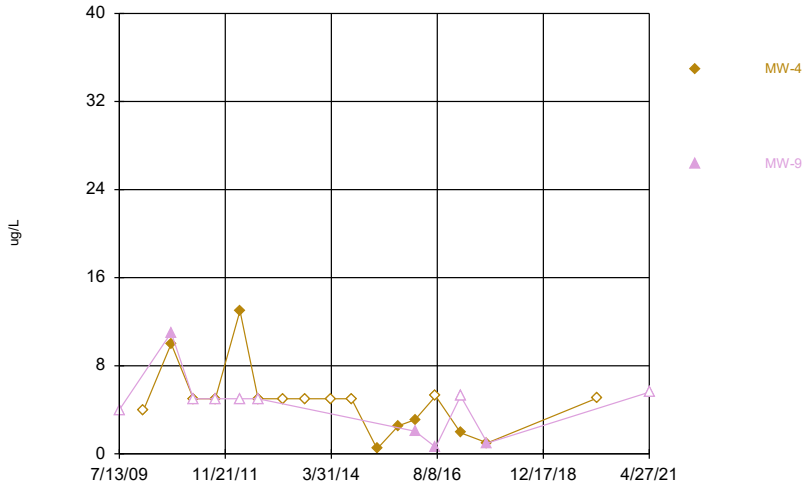
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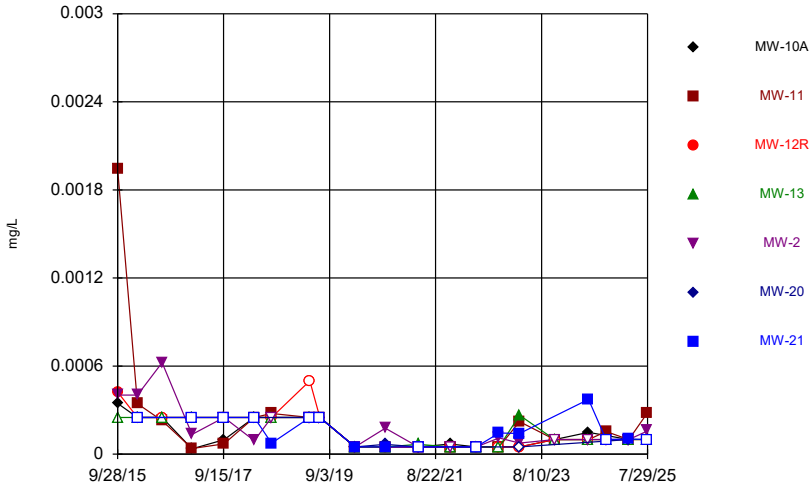
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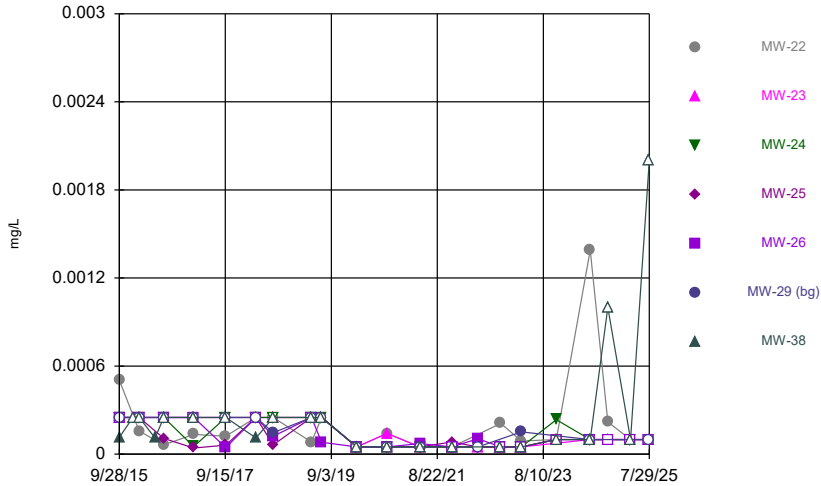
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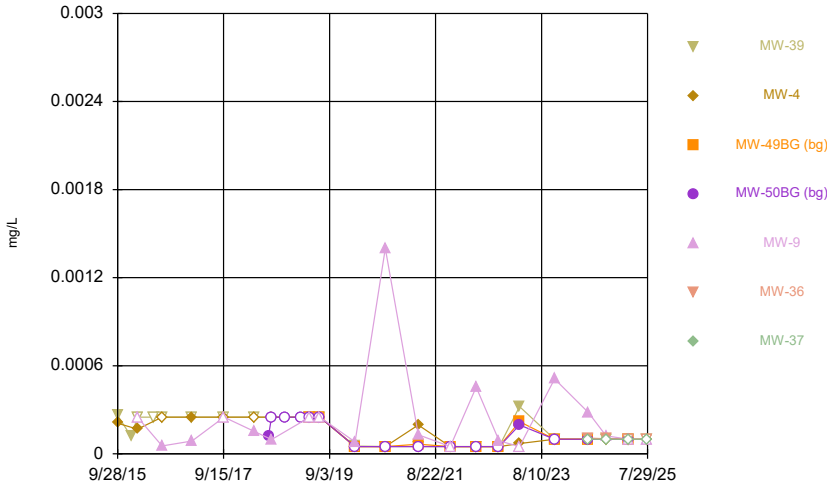
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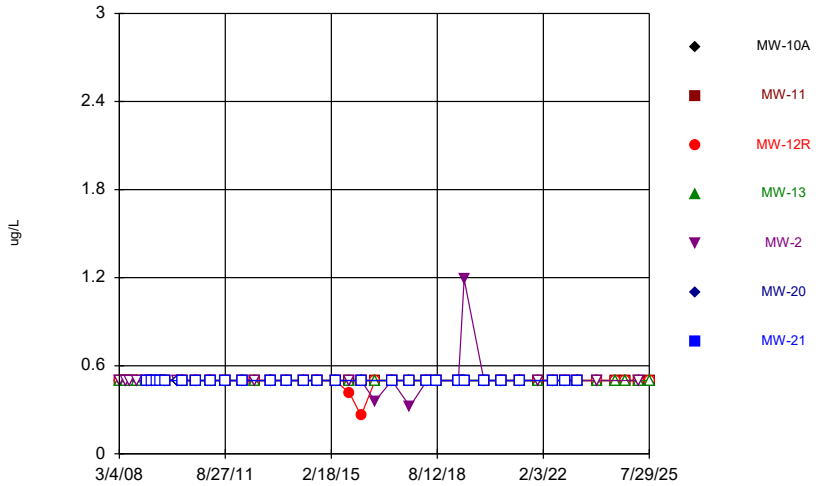
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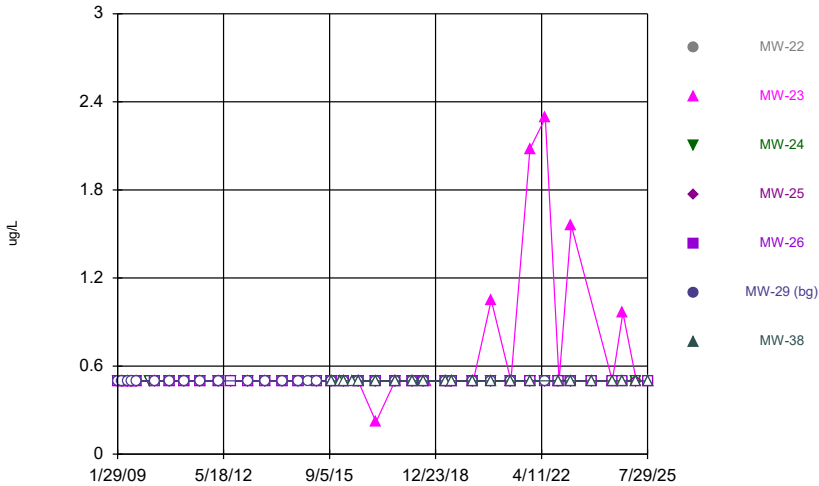
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Time Series

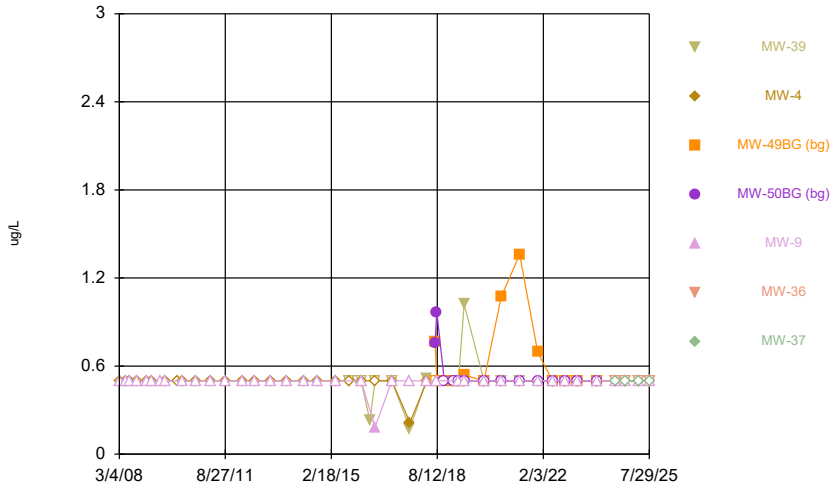


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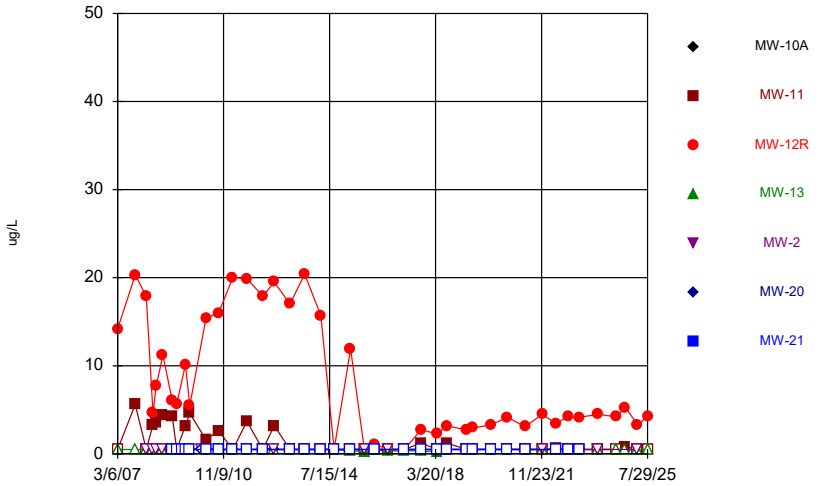
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



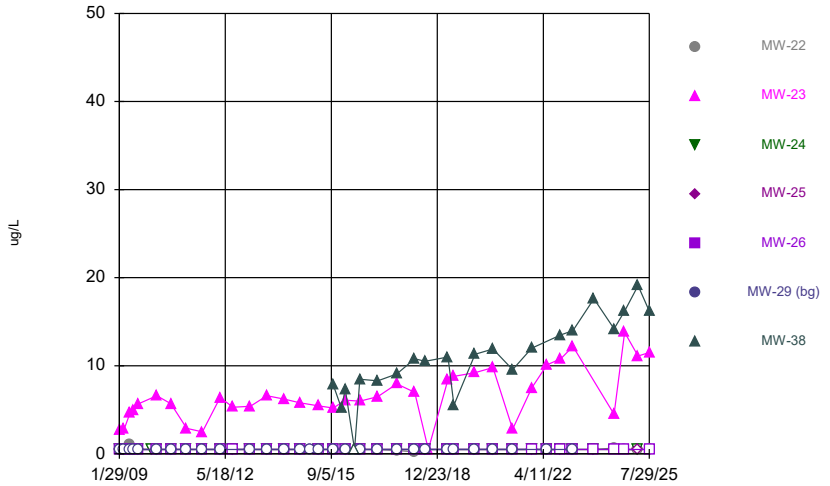
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



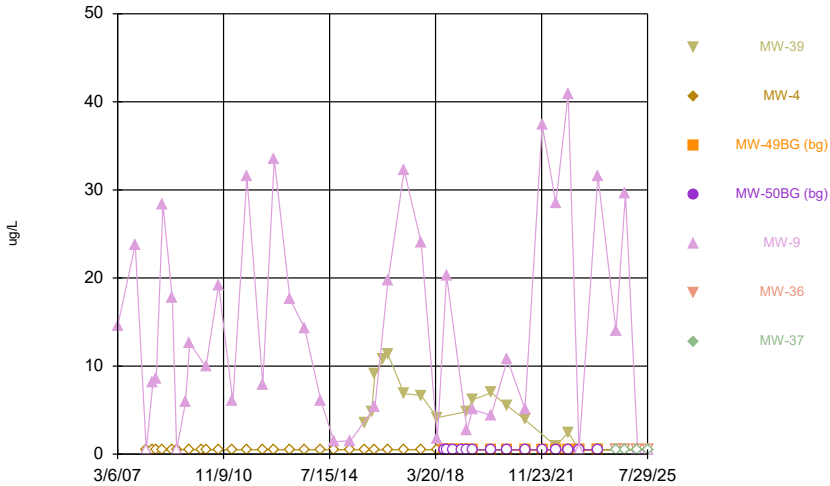
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



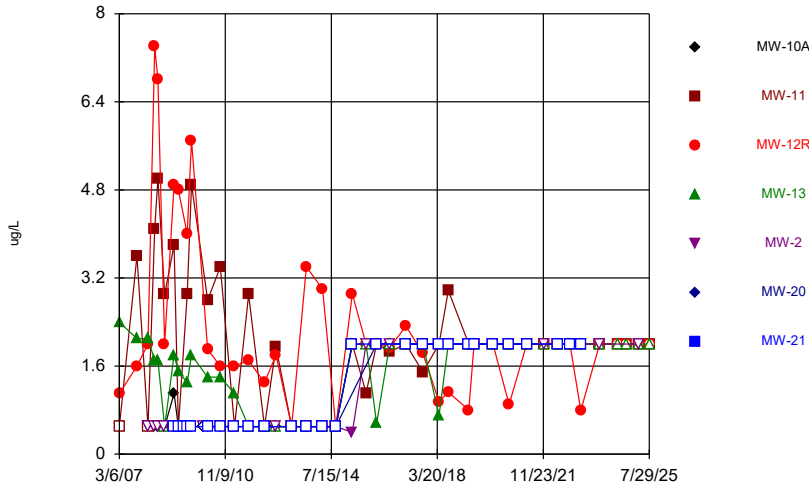
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



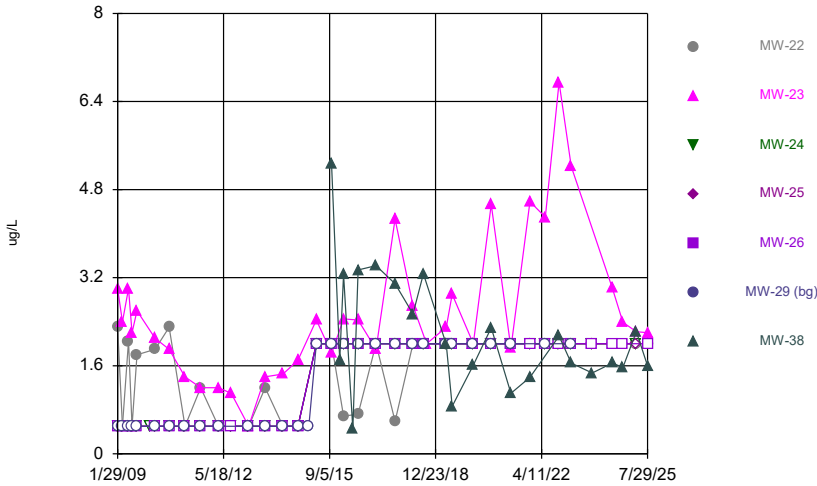
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



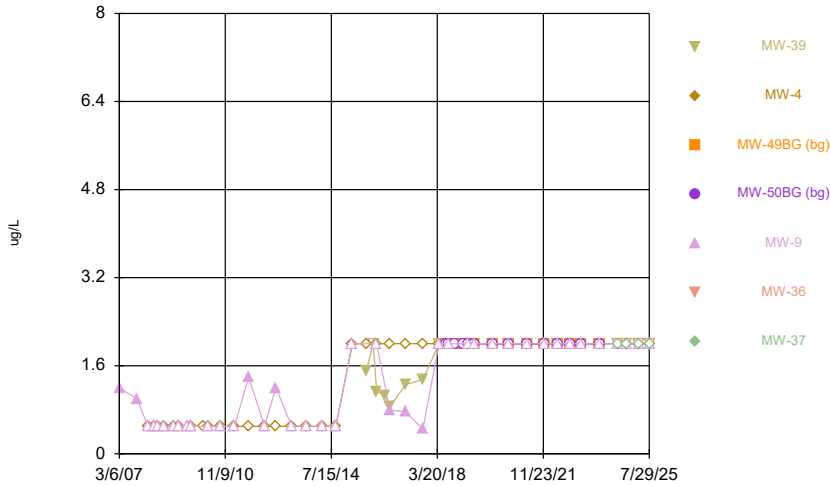
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



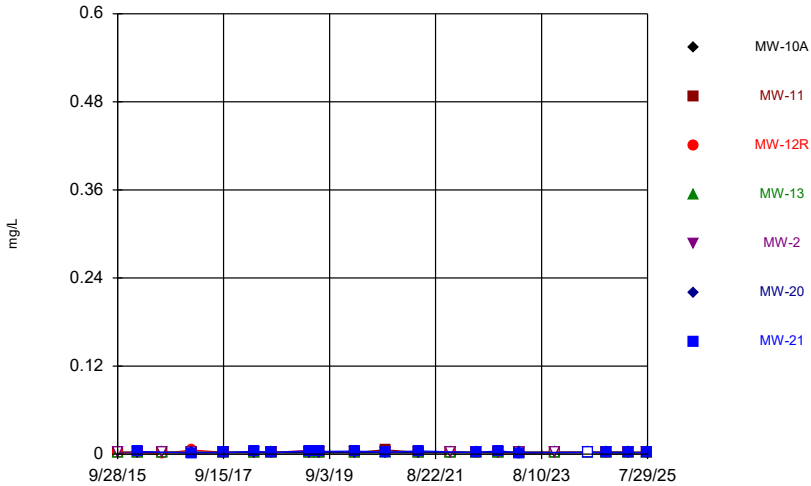
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



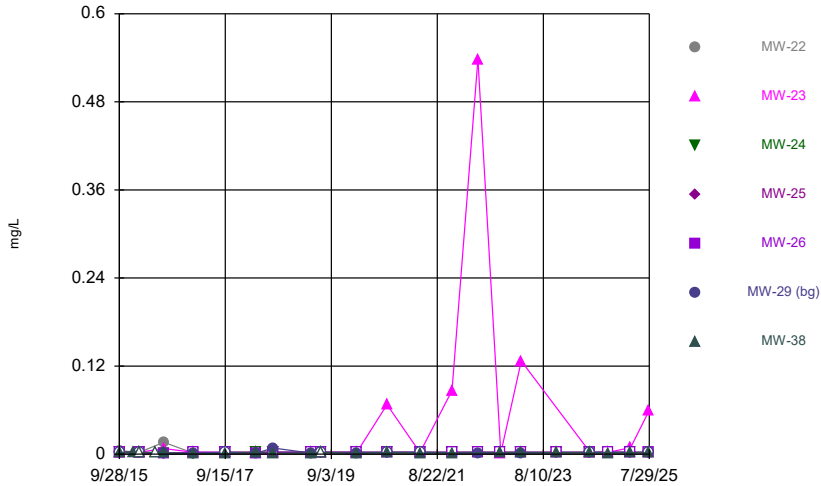
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



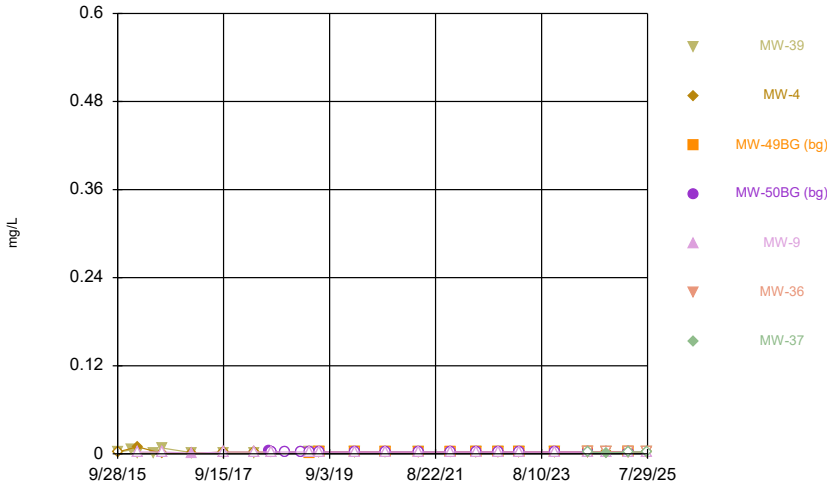
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



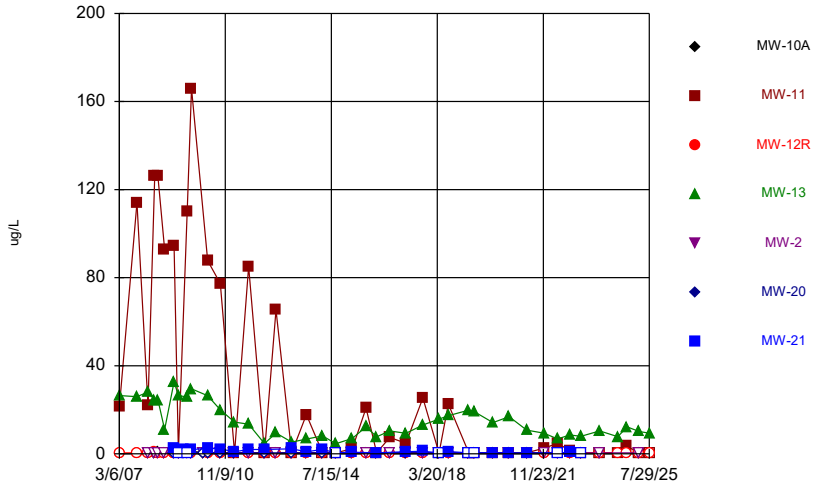
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



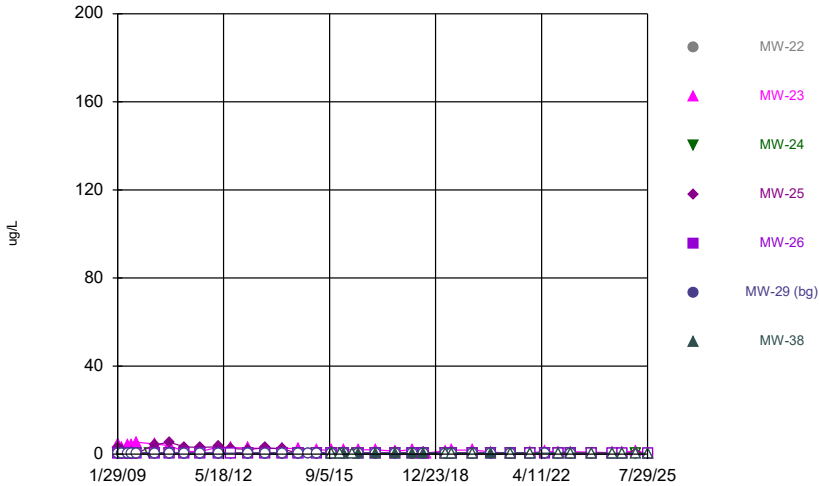
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



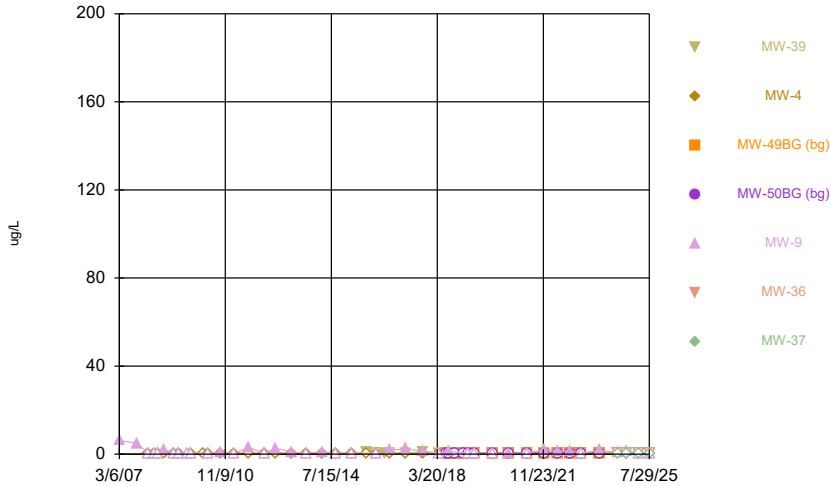
Constituent: cis-1,2-Dichloroethene Analysis Run 1/26/2026 2:57 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



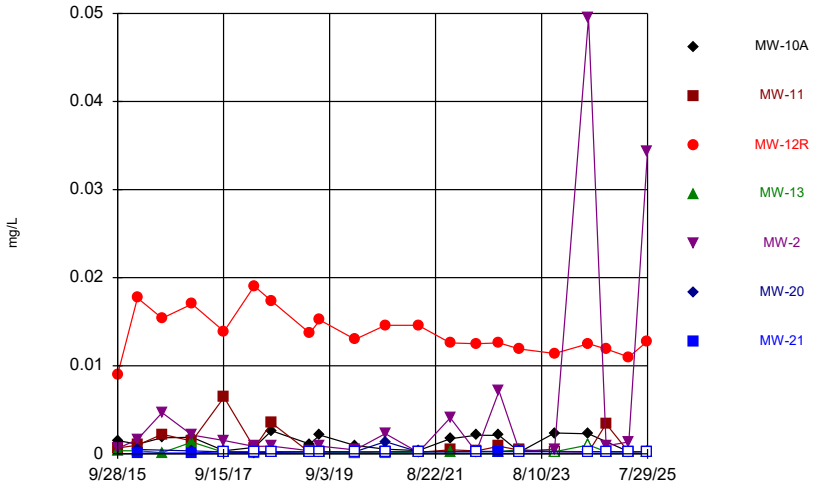
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



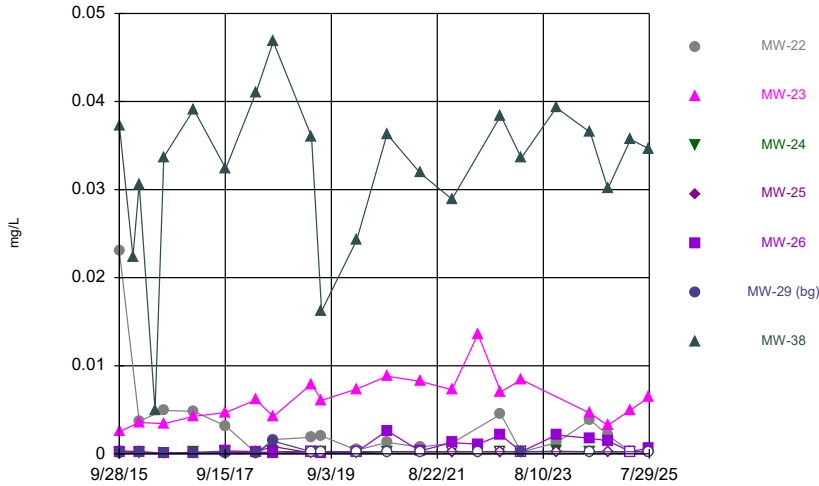
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



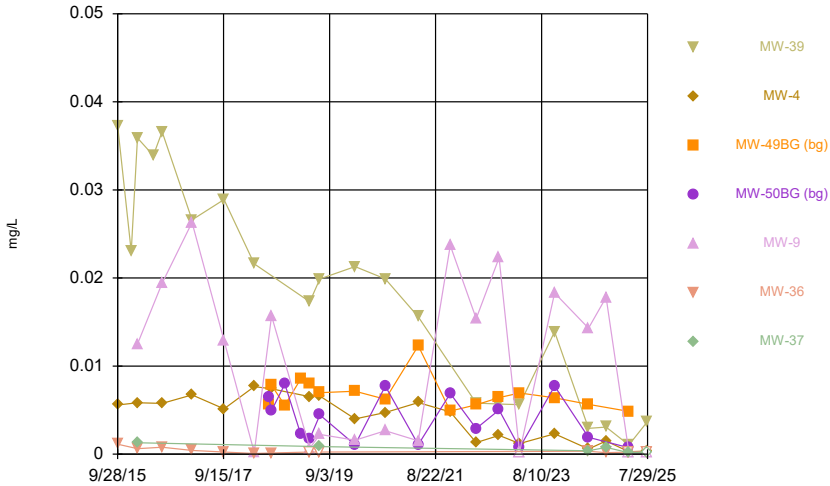
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



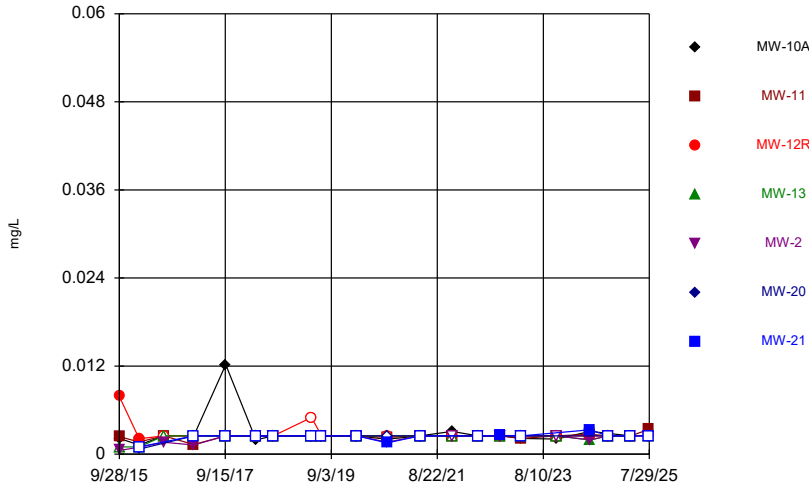
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



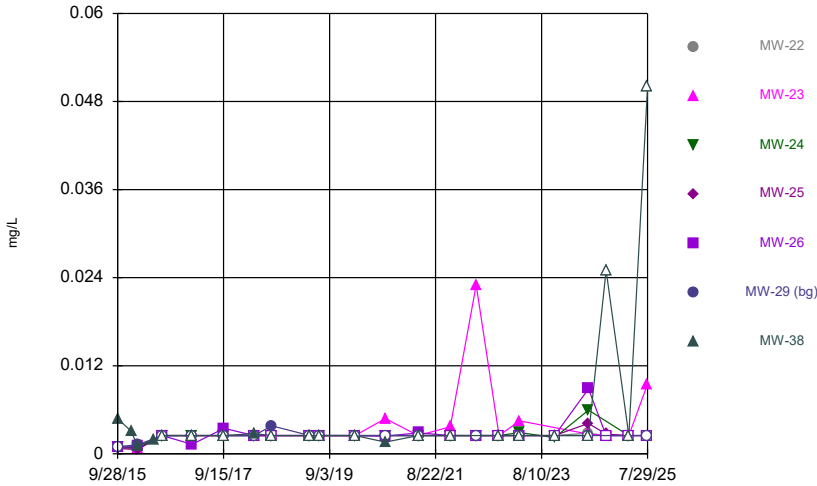
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



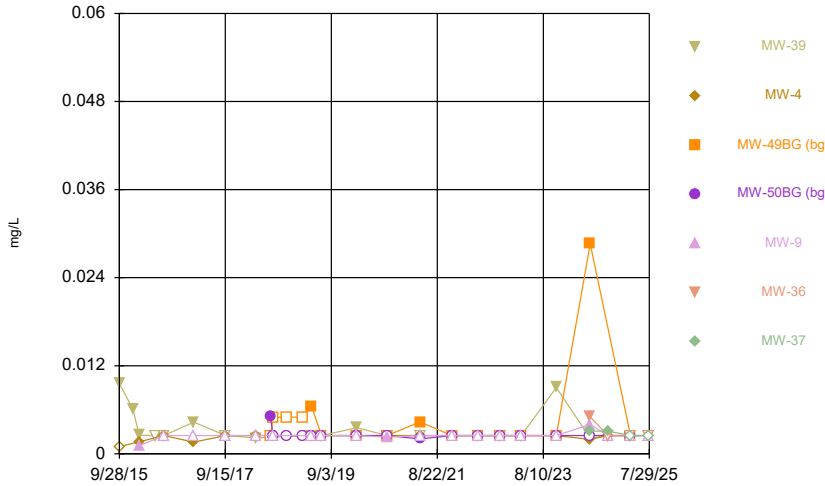
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



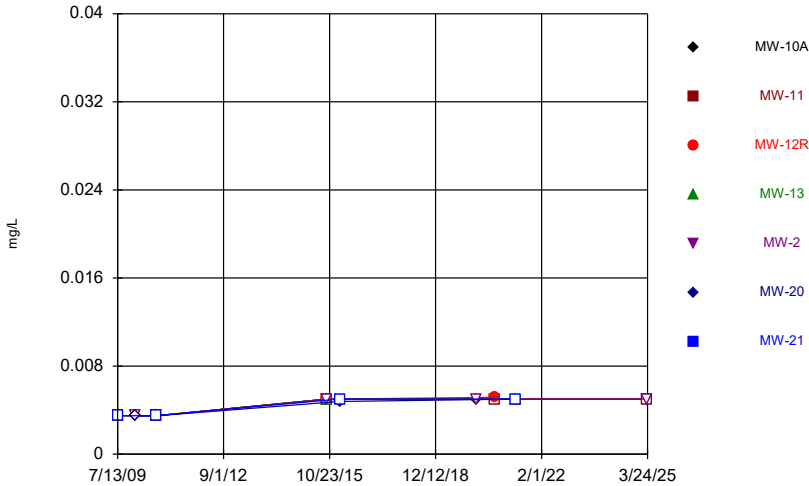
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



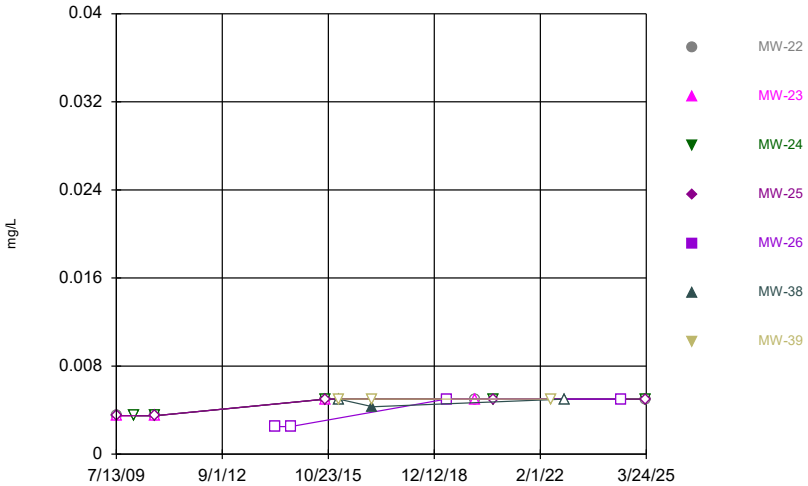
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



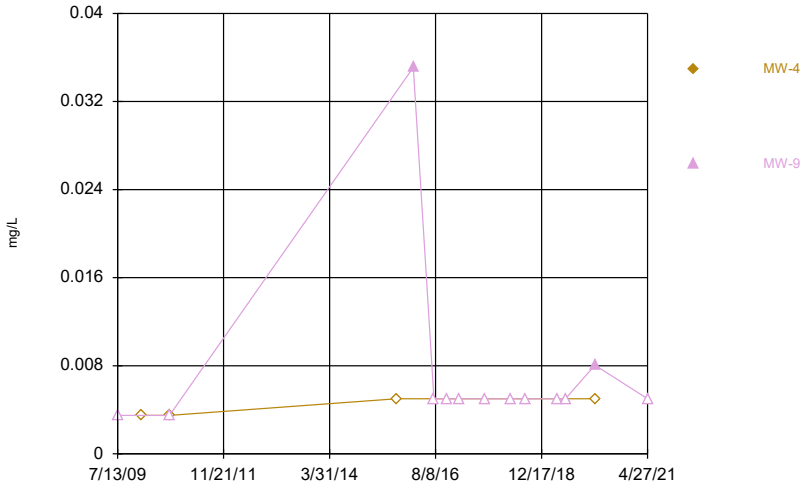
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



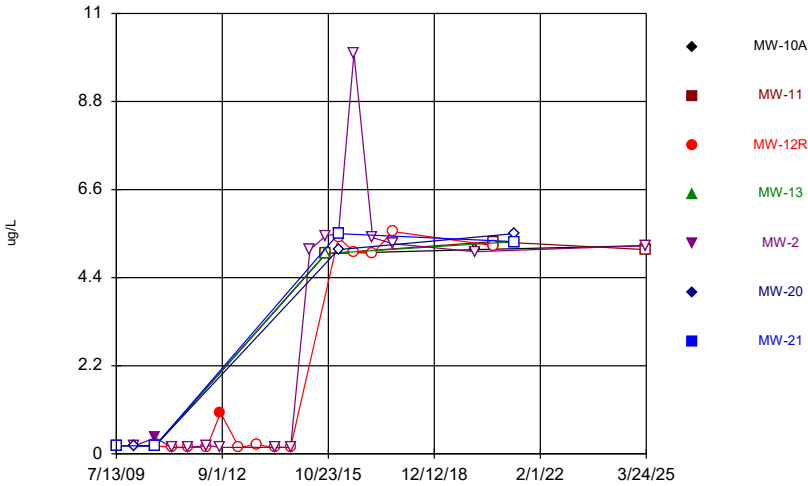
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



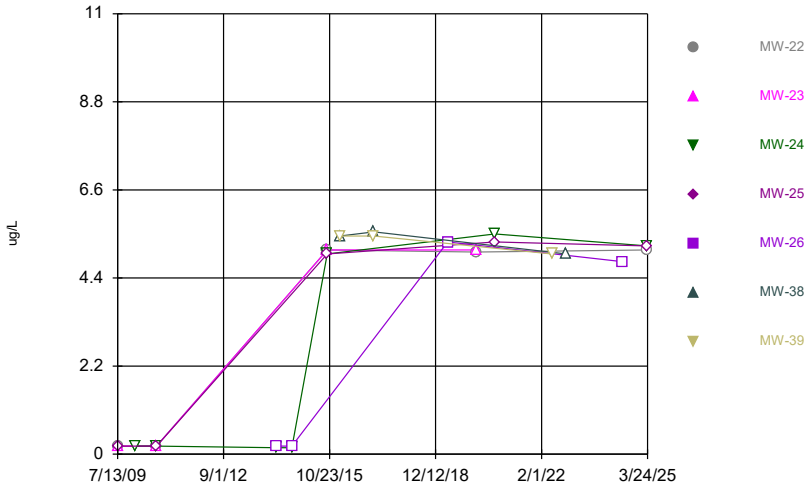
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

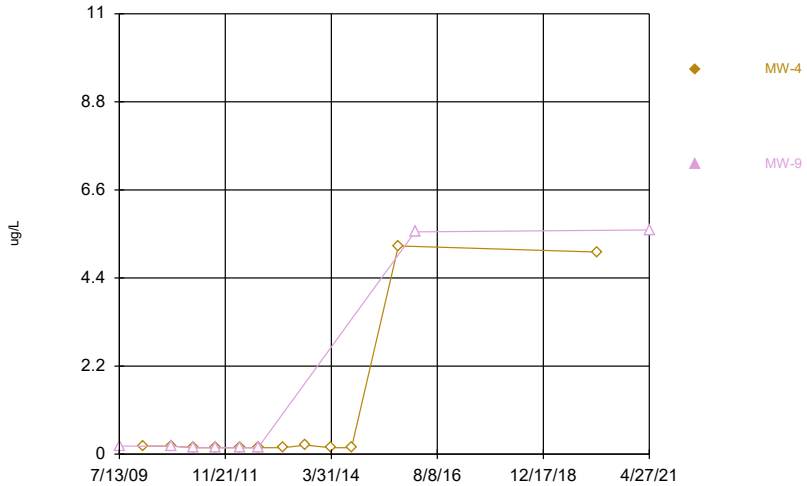


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

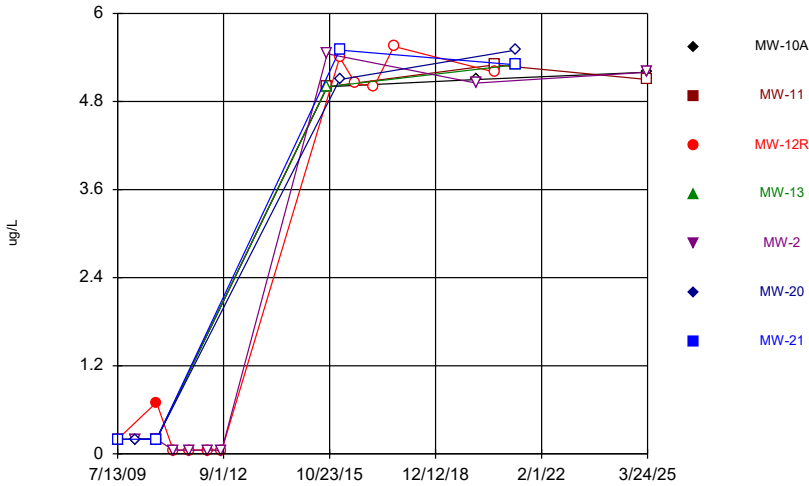
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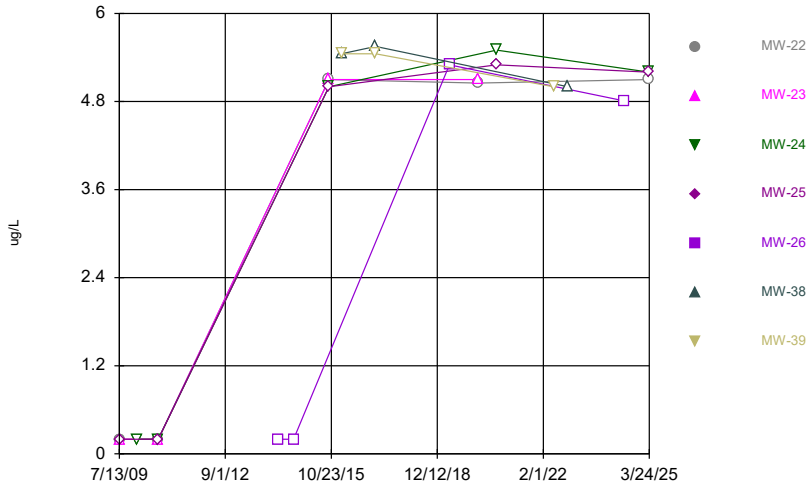
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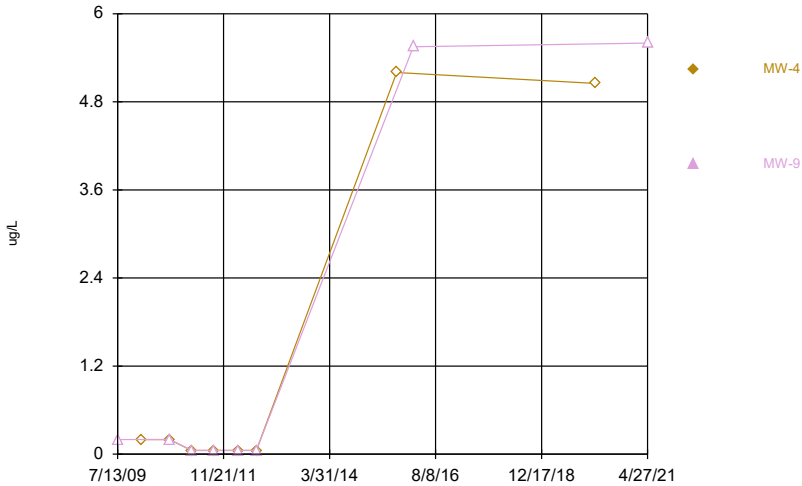
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Time Series

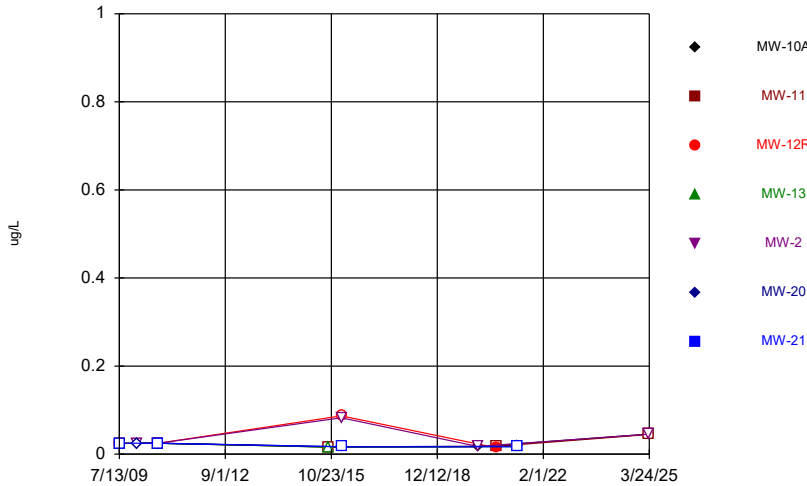


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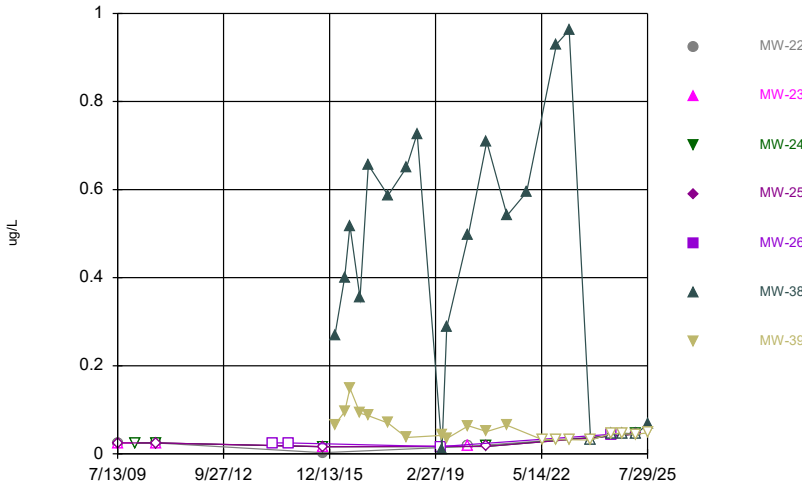
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



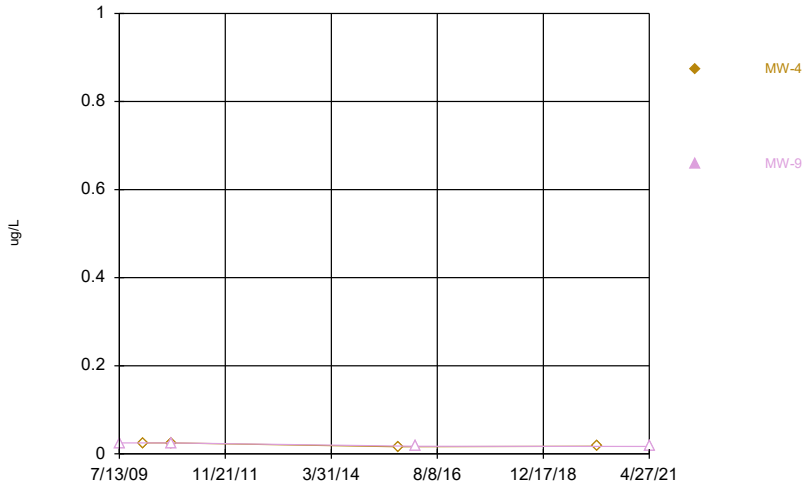
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Time Series



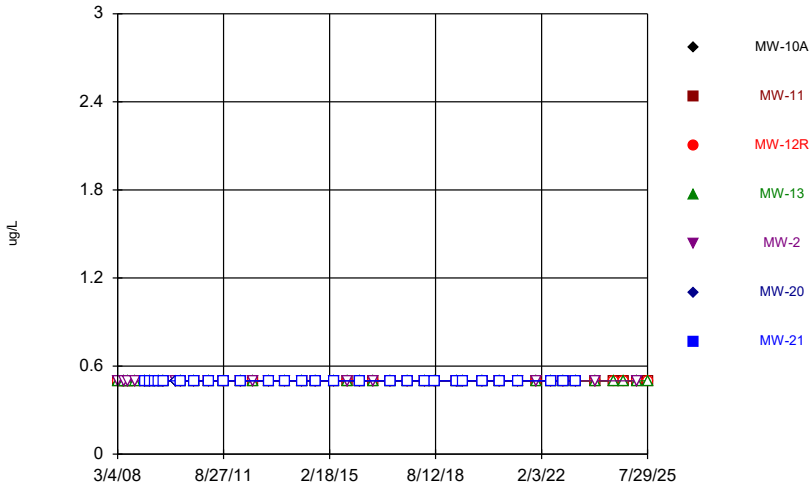
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

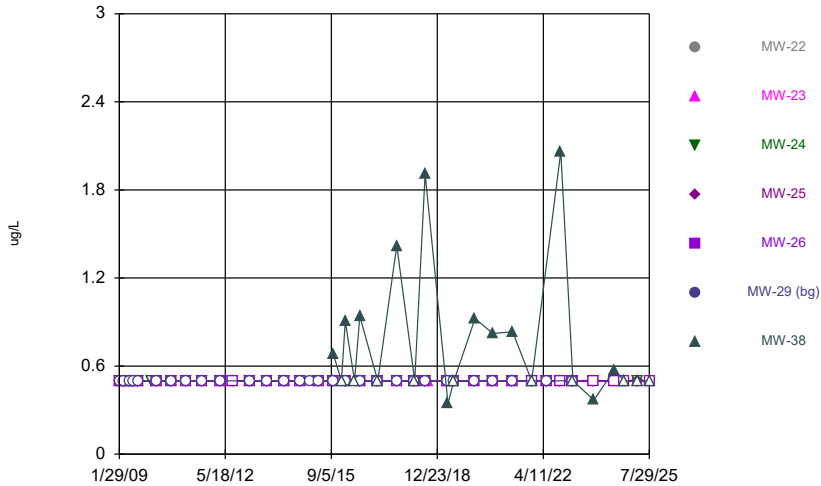


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

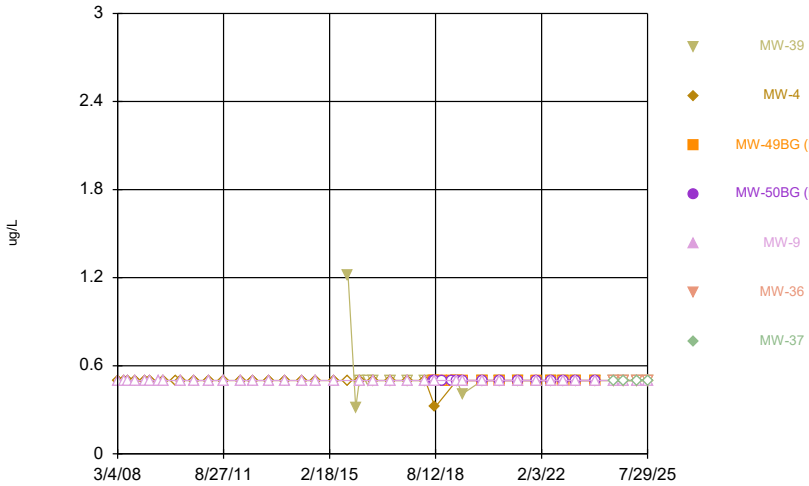
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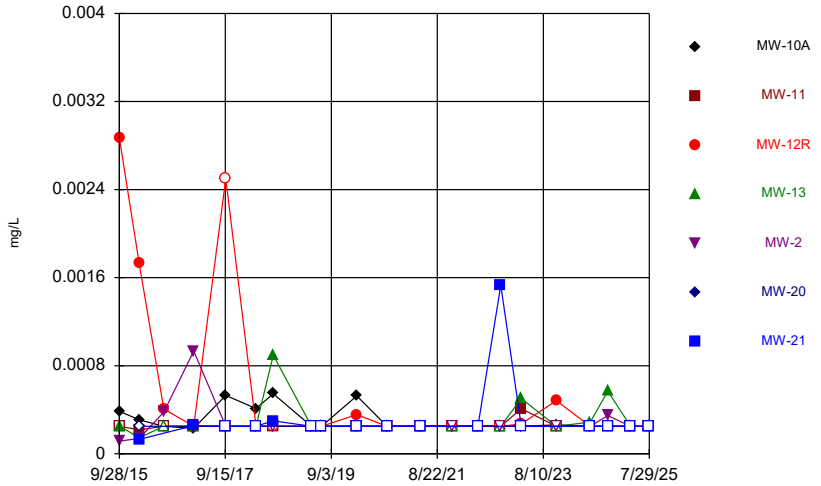
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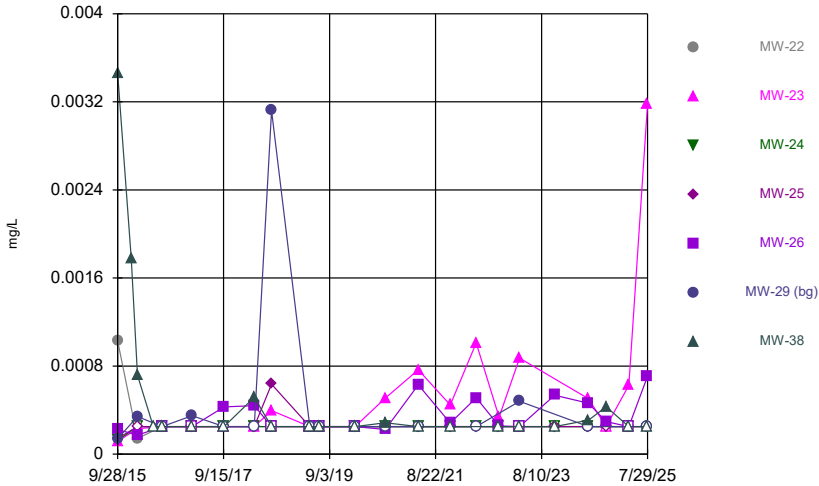
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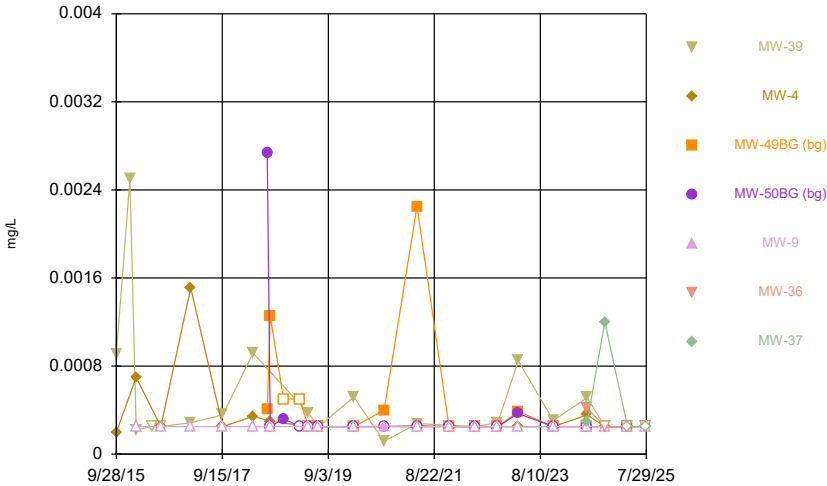
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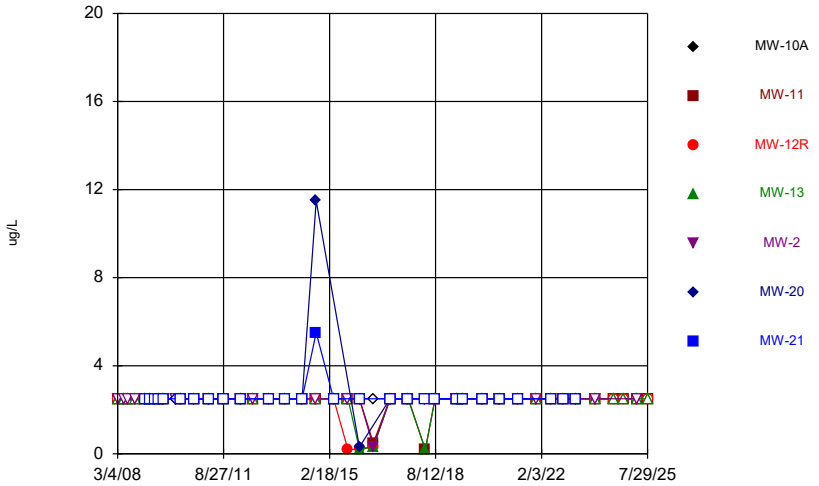
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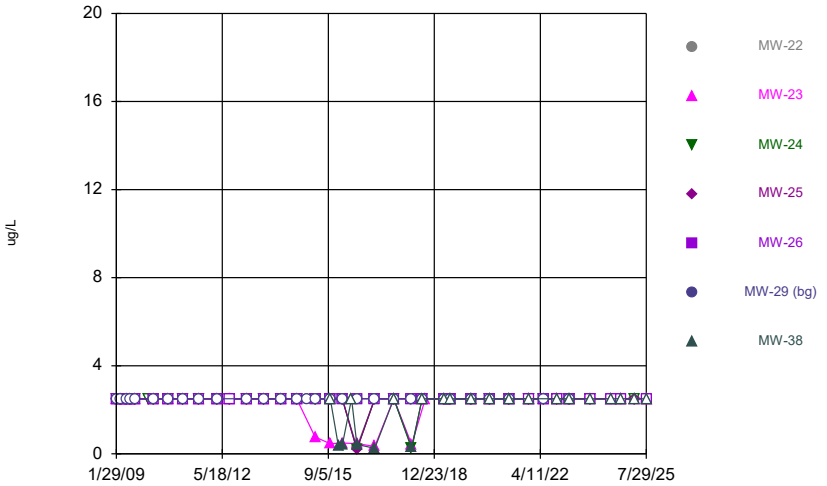
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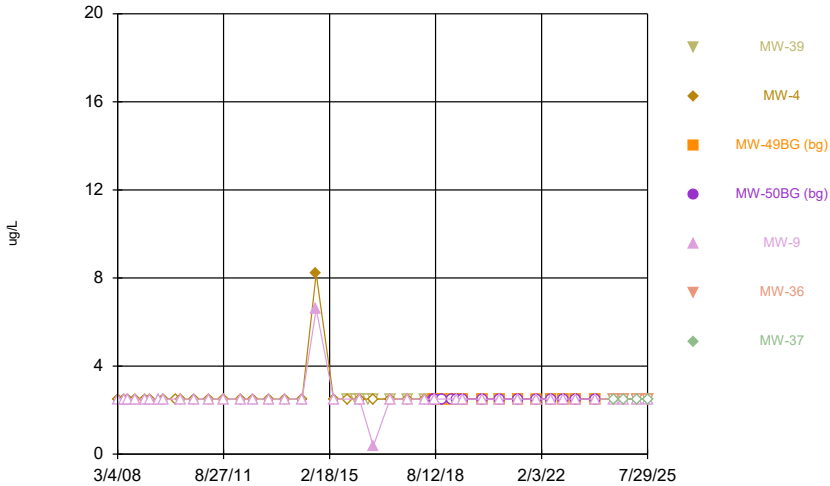
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Time Series

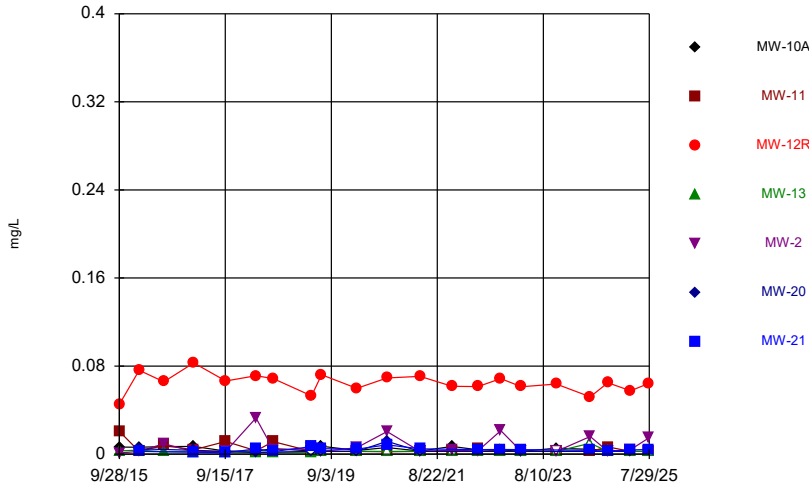


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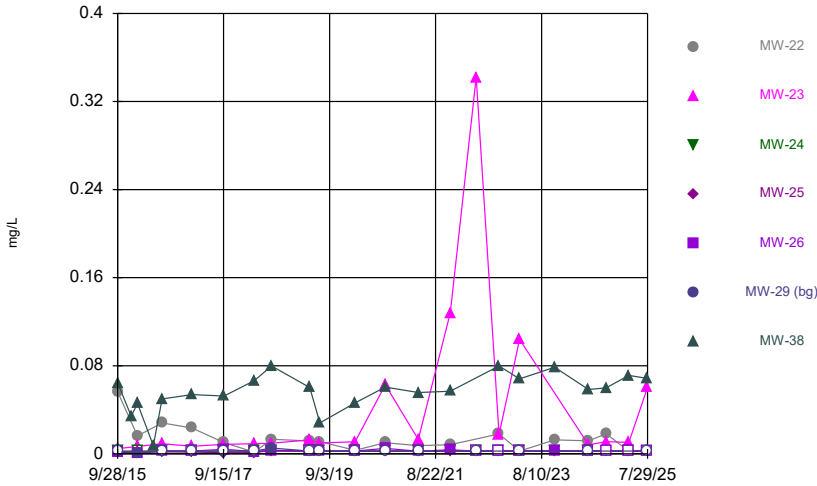
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



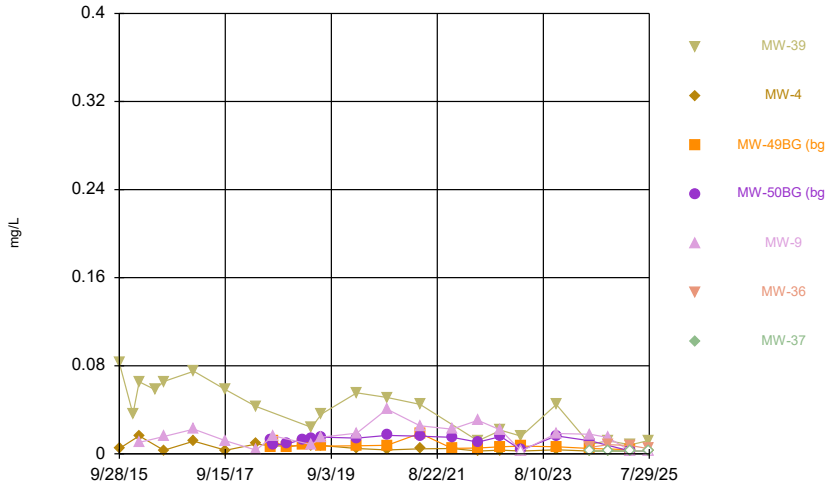
Constituent: Nickel Analysis Run 1/26/2026 2:58 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



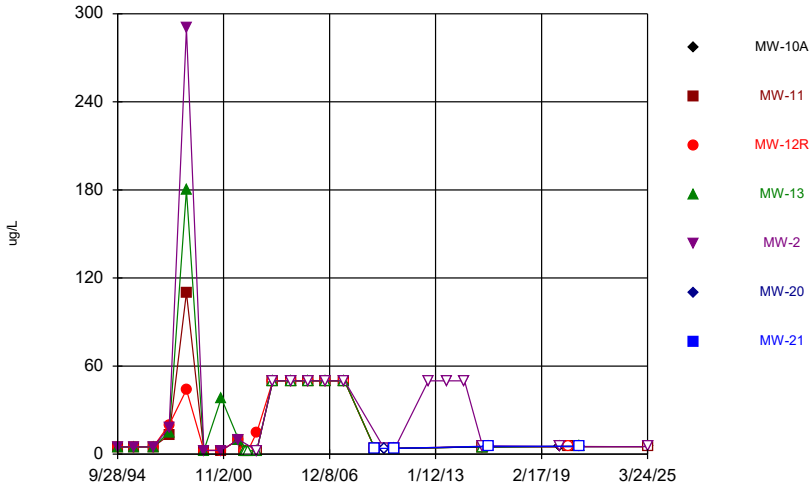
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

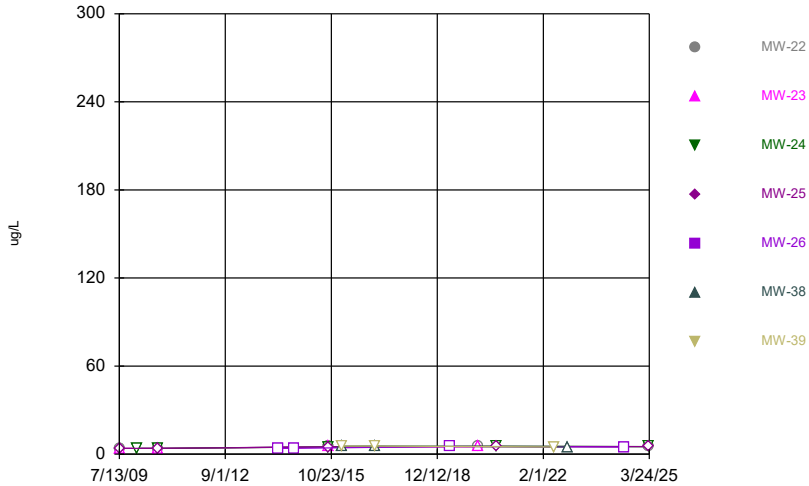


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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

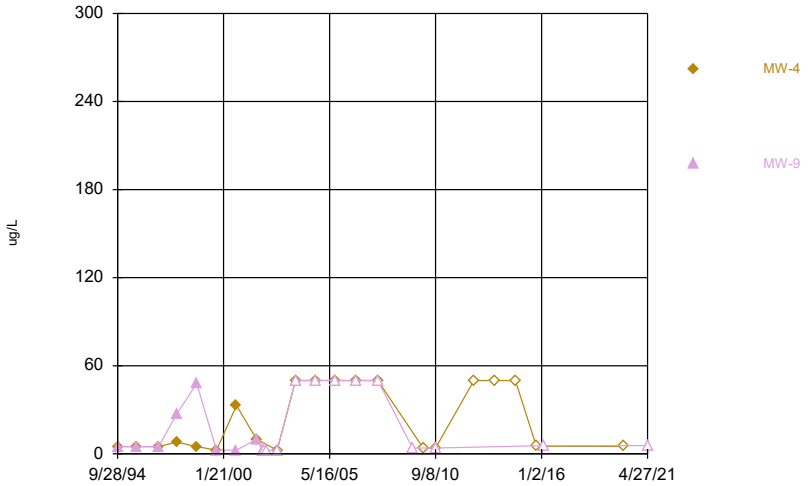
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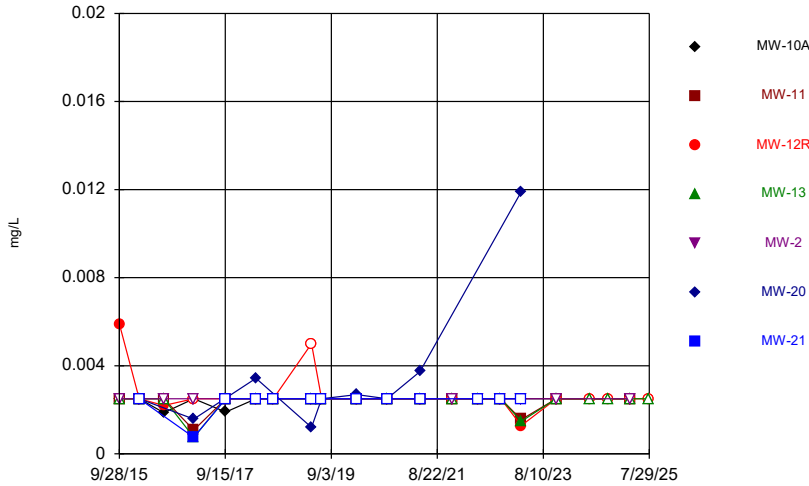
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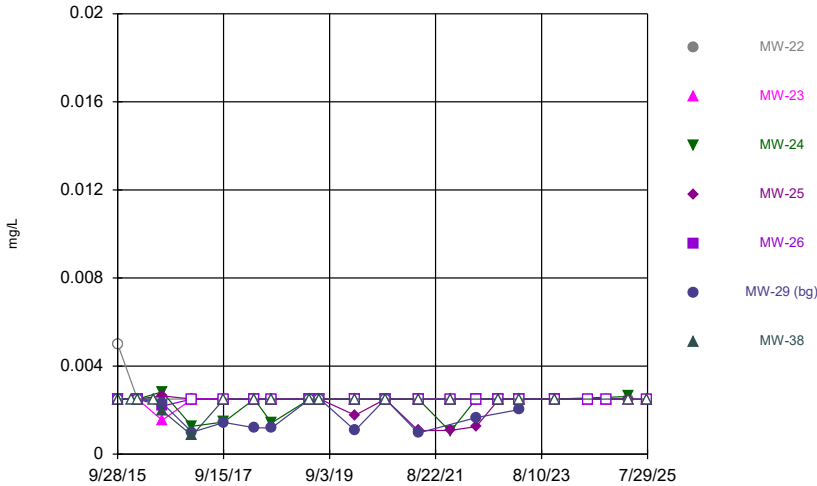
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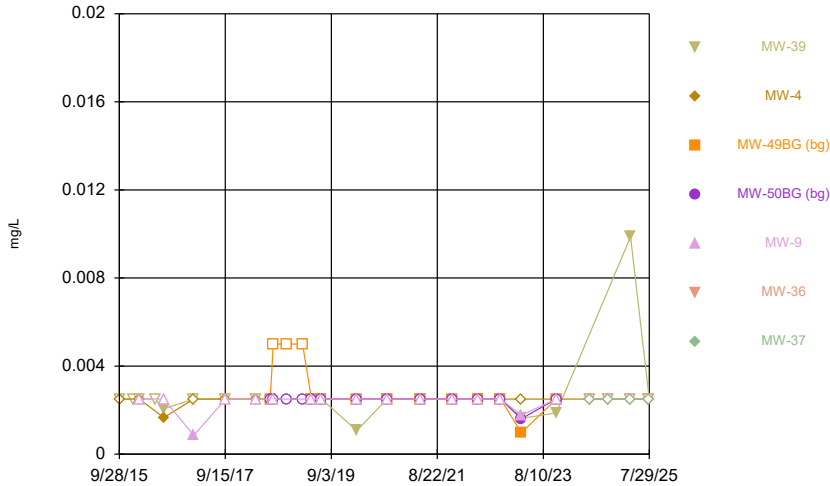
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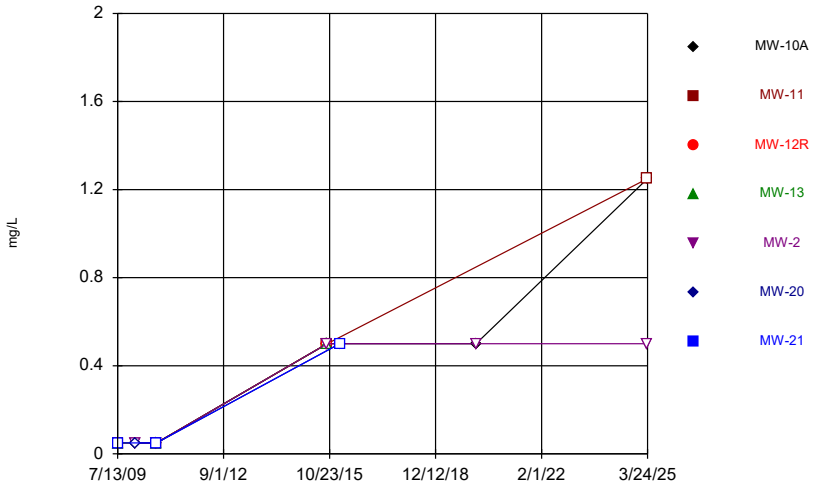
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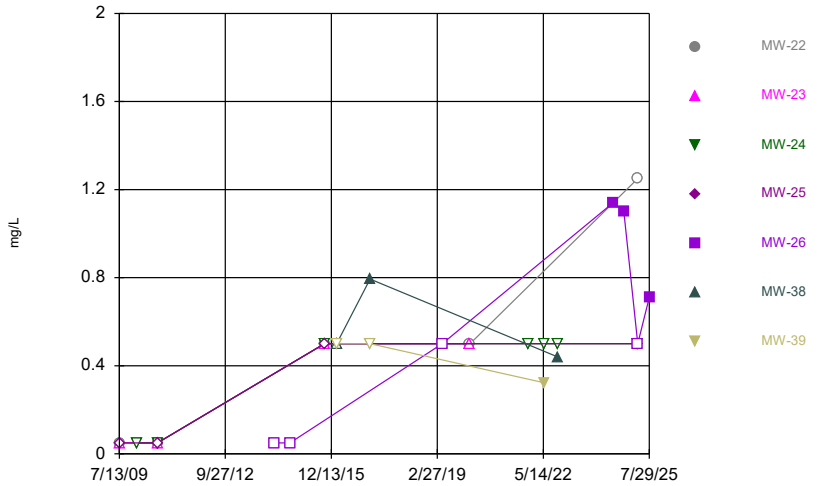
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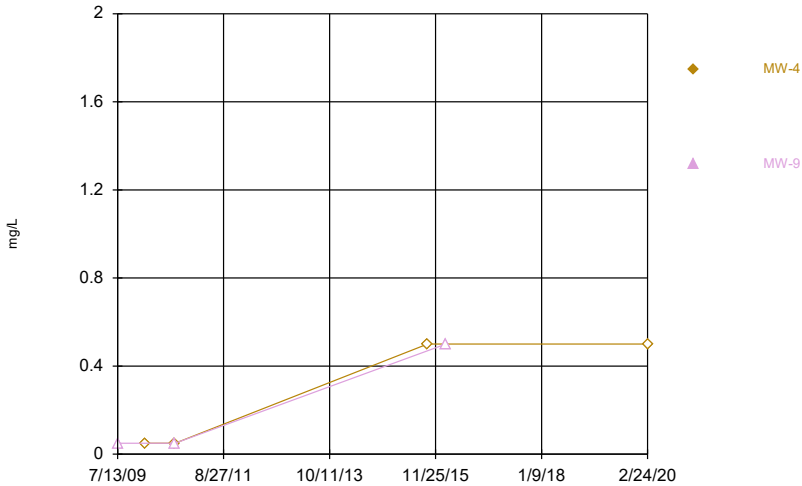
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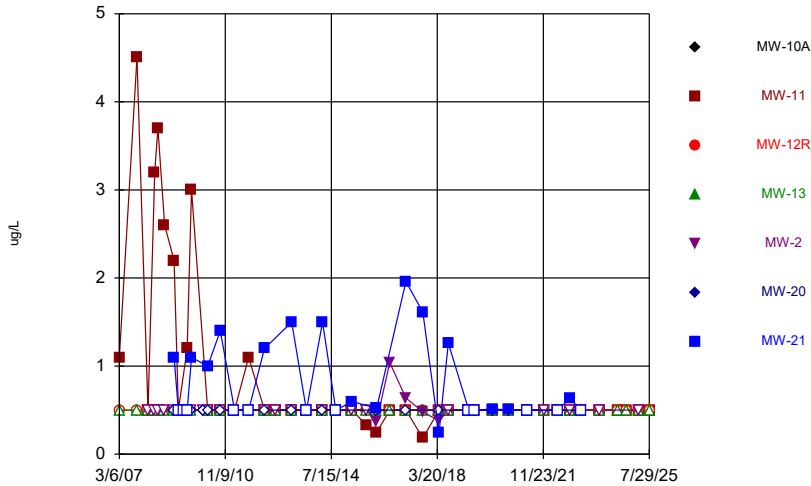
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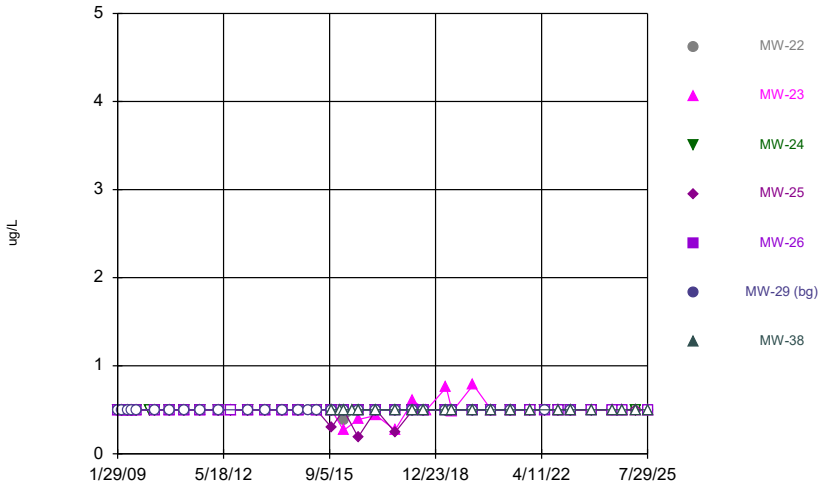
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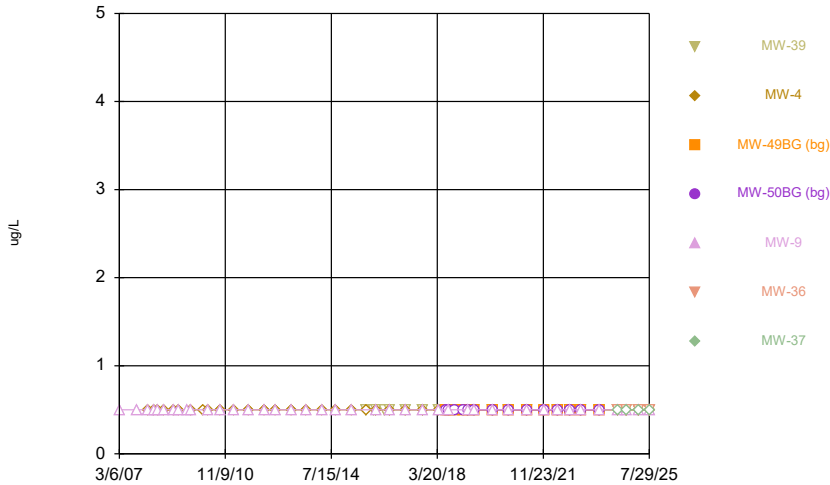
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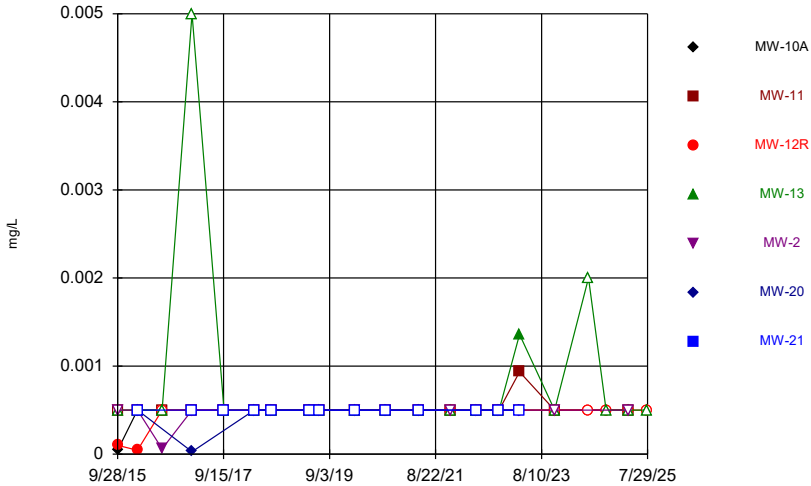
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Time Series

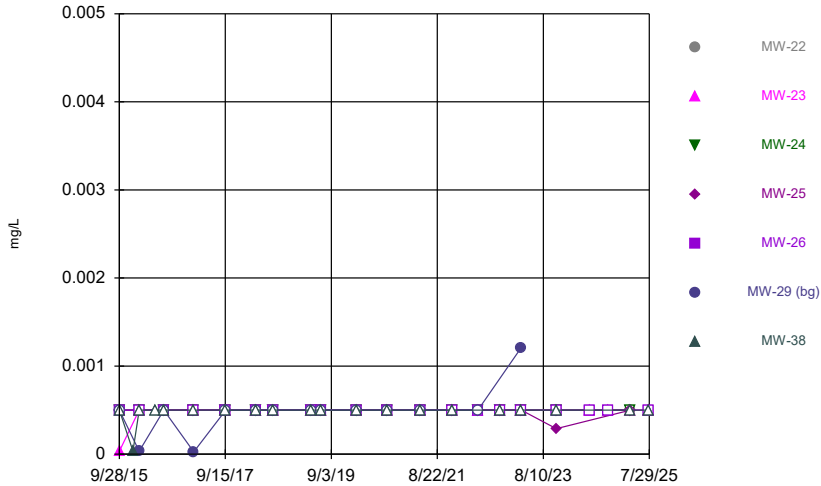


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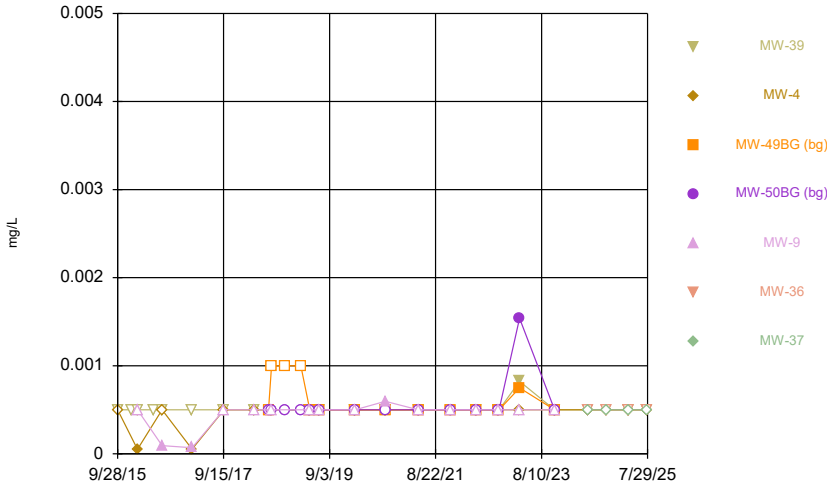
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



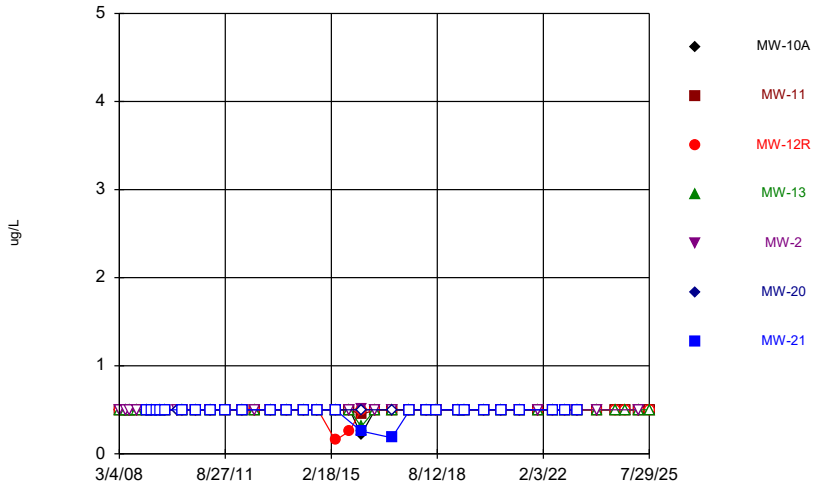
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



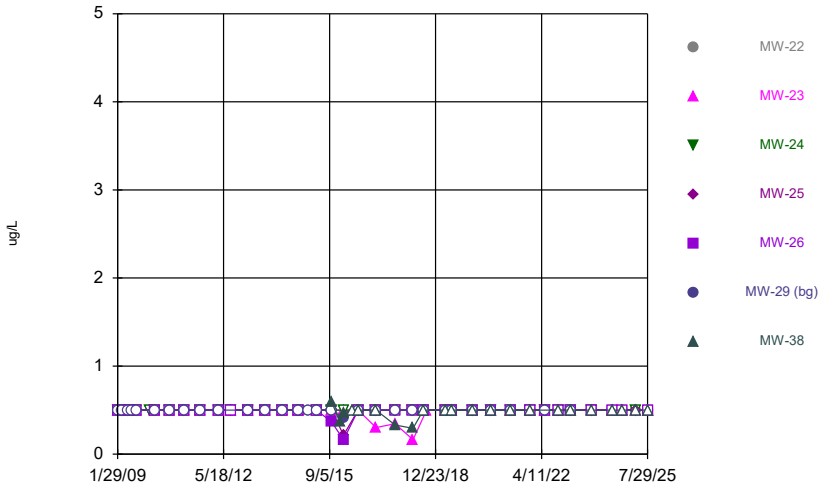
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



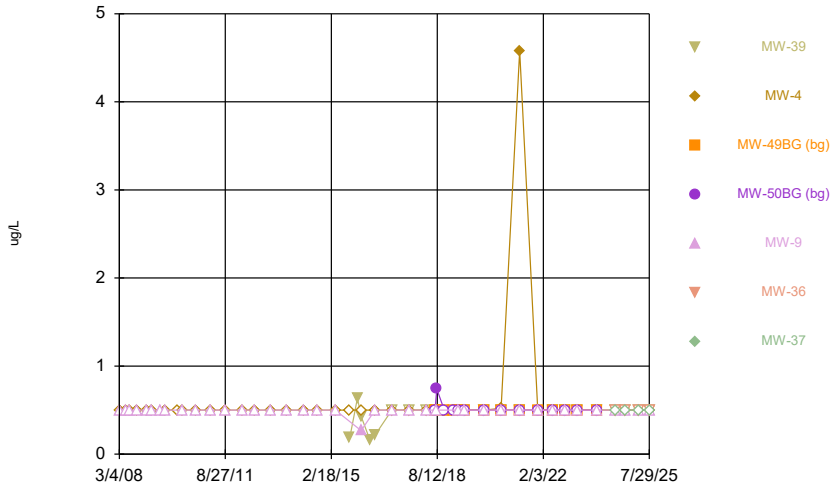
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



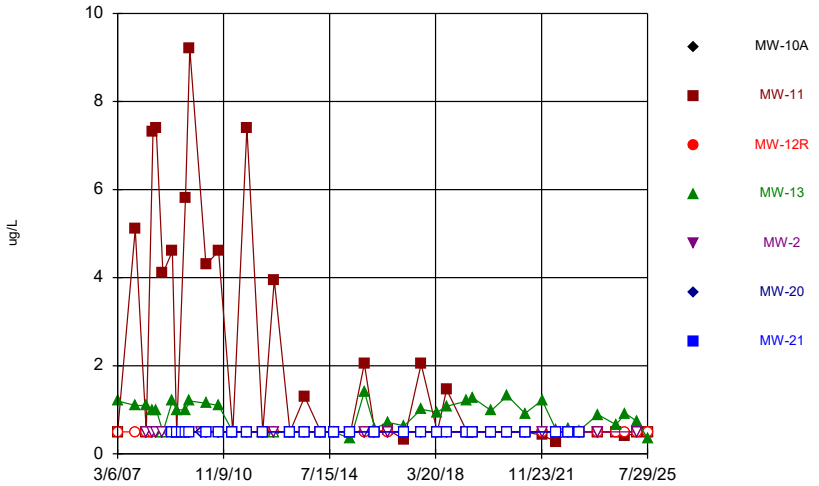
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Time Series



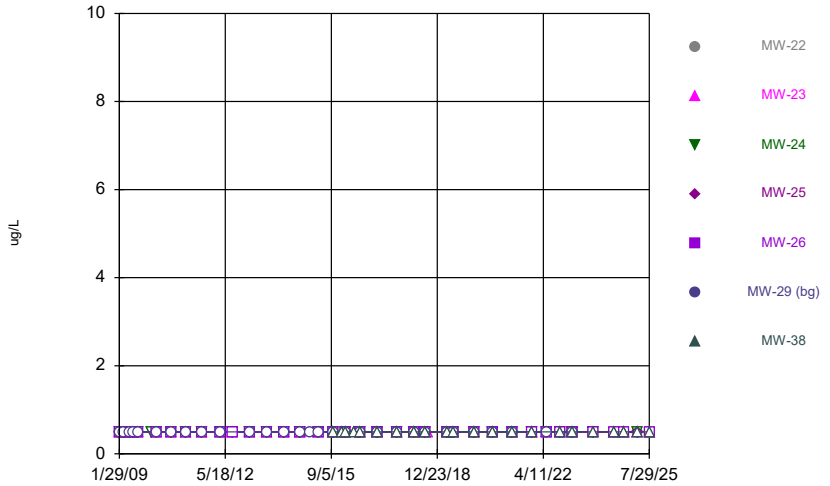
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Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



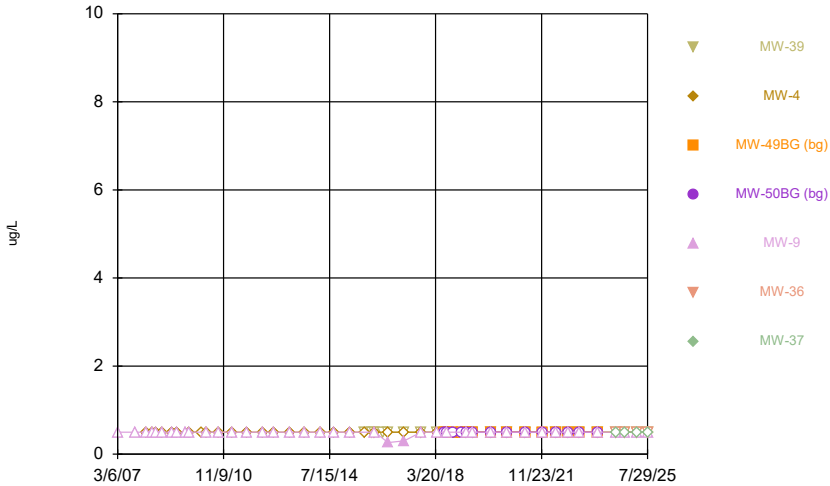
Constituent: trans-1,2-Dichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



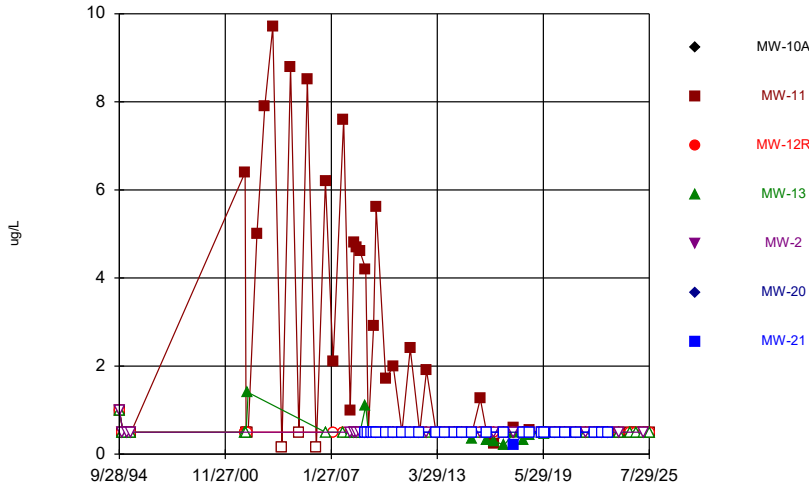
Constituent: trans-1,2-Dichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



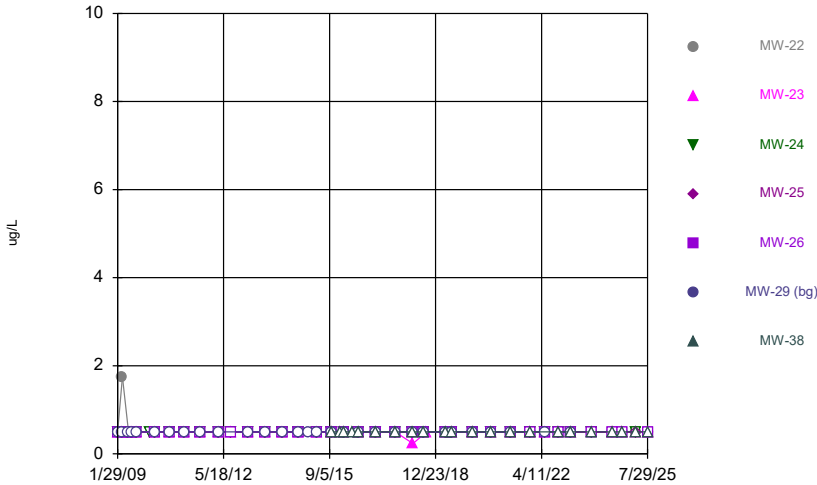
Constituent: trans-1,2-Dichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



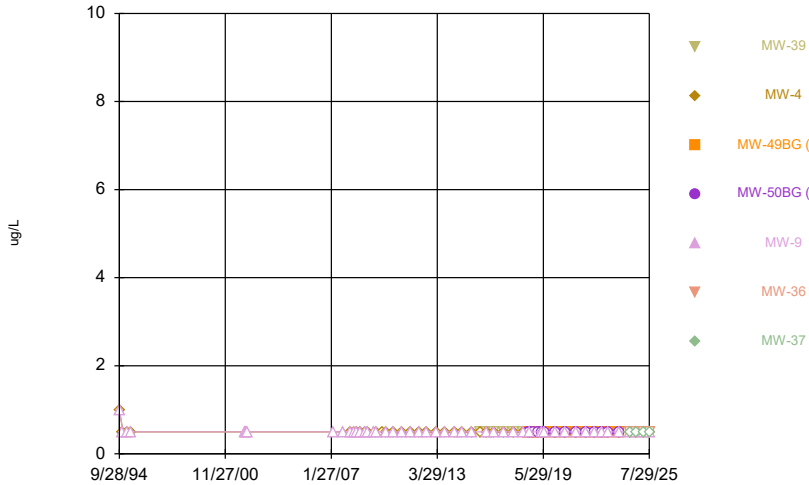
Constituent: Trichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



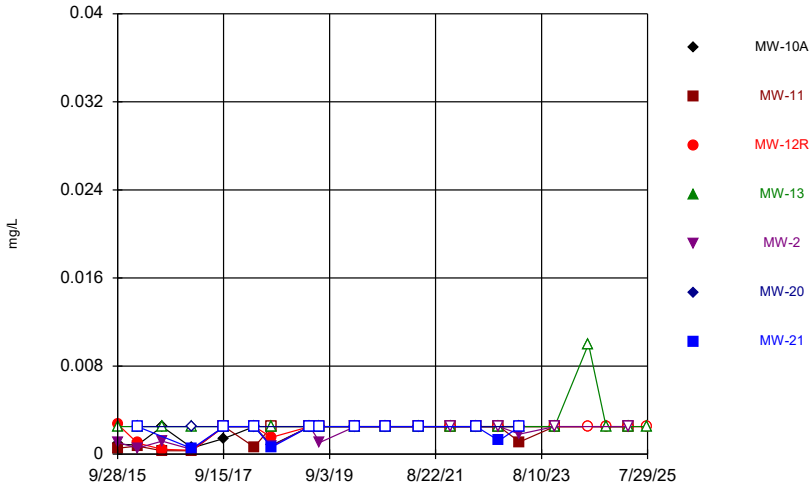
Constituent: Trichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series

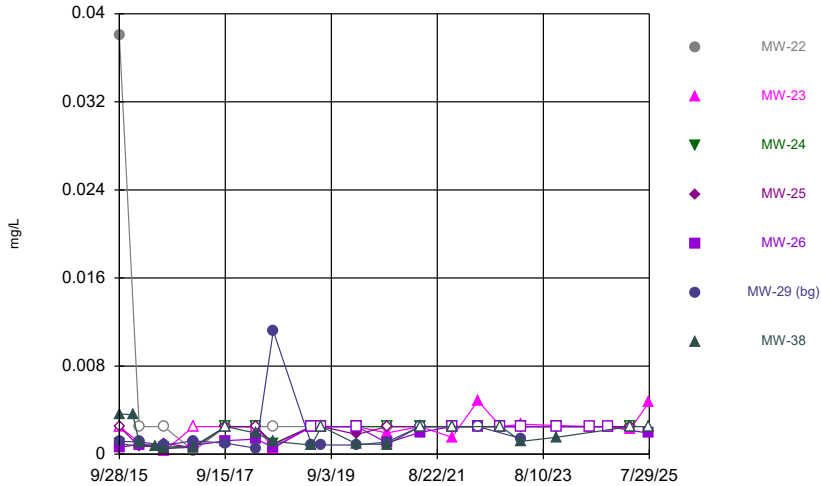


Constituent: Trichloroethene Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

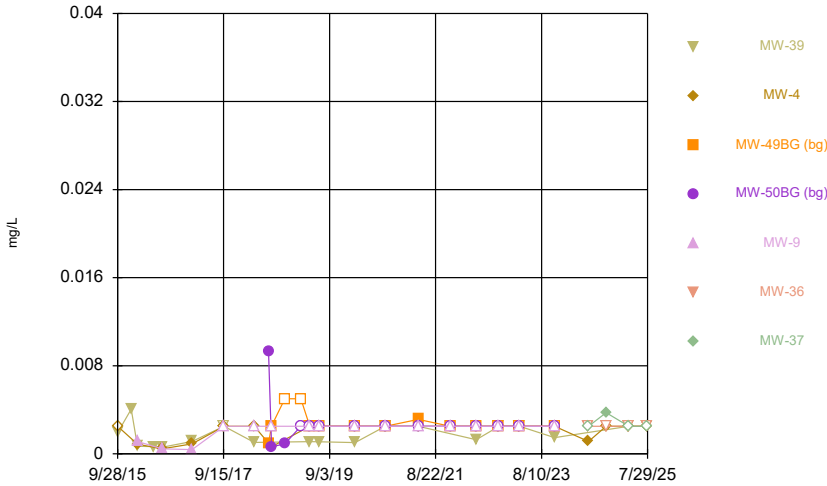
Time Series



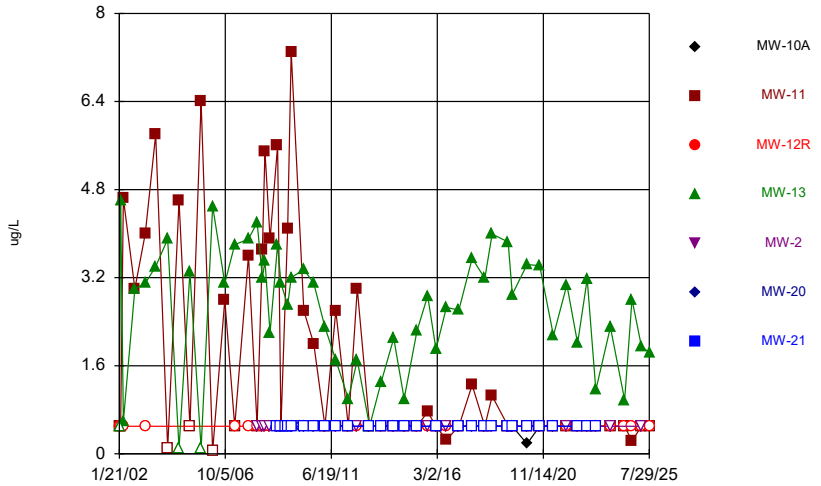
Time Series



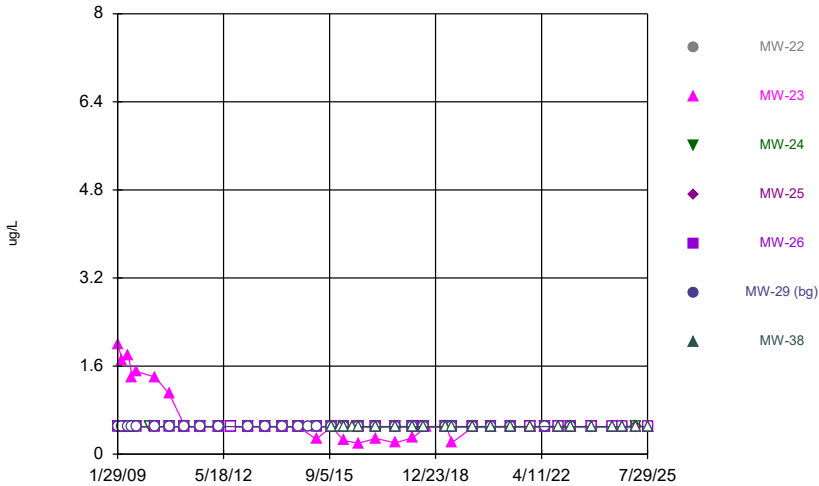
Time Series



Time Series

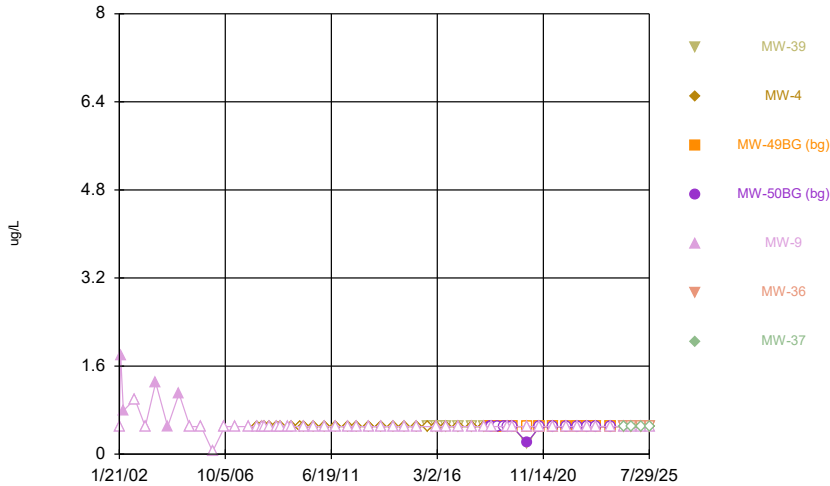


Time Series



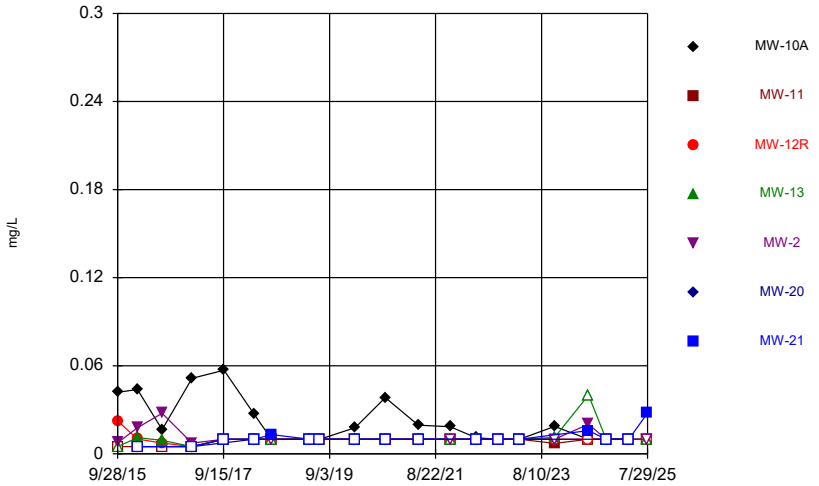
Constituent: Vinyl Chloride Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



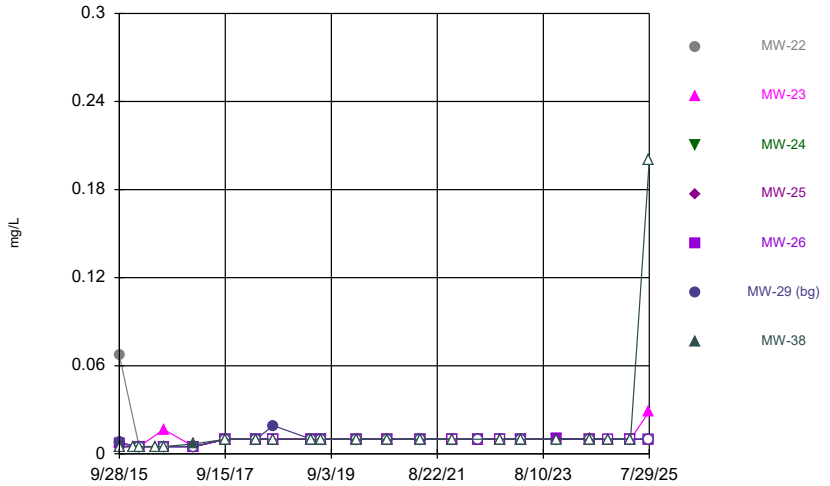
Constituent: Vinyl Chloride Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



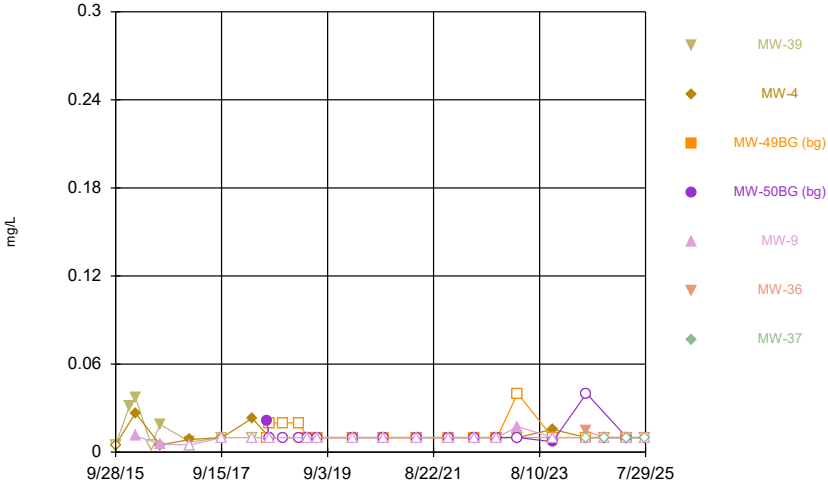
Constituent: Zinc Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



Constituent: Zinc Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Time Series



Constituent: Zinc Analysis Run 1/26/2026 2:59 PM View: 2025_AWQR-Time_Series
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

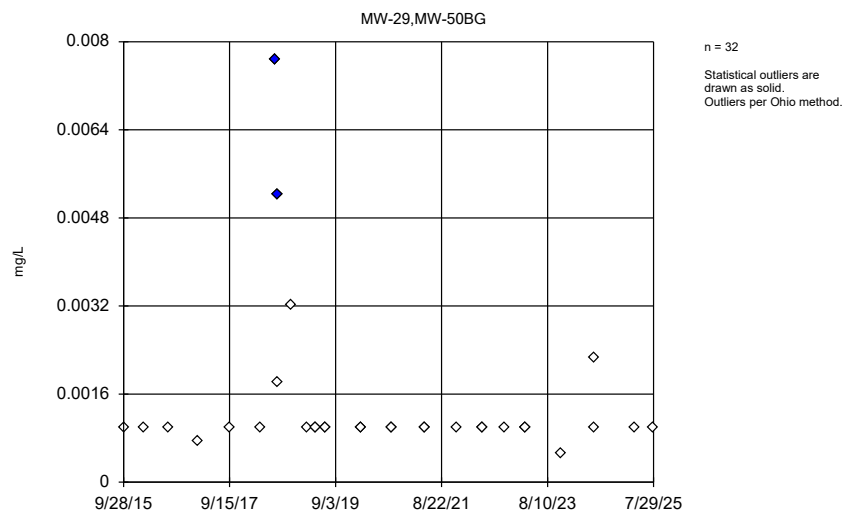
Outlier Tests Summary Table and Graphs

Outlier Analysis

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 2/4/2026, 11:24 AM

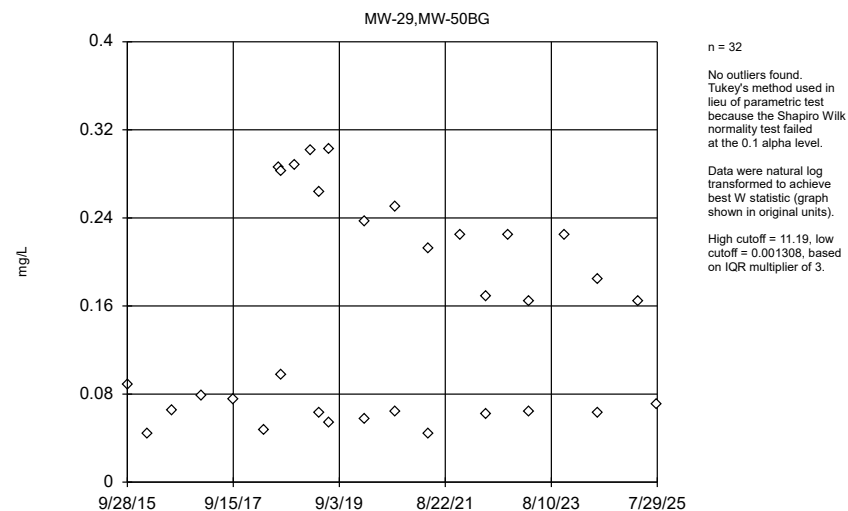
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-29,MW-50BG	Yes	0.00768,0.00522	n/a w/combined bg	OH	NaN	32	0.001452	0.001429	n/a	n/a
Barium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	32	0.1506	0.09391	unknown	ShapiroWilk
Cadmium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	OH	NaN	32	0.0001522	0.00008895	n/a	n/a
Chromium (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	32	0.00248	0.001262	unknown	ShapiroWilk
Cobalt (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	32	0.002122	0.002693	unknown	ShapiroWilk
Copper (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	OH	NaN	32	0.002523	0.0006453	n/a	n/a
Lead (mg/L)	MW-29,MW-50BG	Yes	0.00312,0.00273	n/a w/combined bg	OH	NaN	32	0.000433	0.0006579	n/a	n/a
Nickel (mg/L)	MW-29,MW-50BG	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	32	0.007384	0.005792	unknown	ShapiroWilk
Zinc (mg/L)	MW-29,MW-50BG	Yes	0.04	n/a w/combined bg	OH	NaN	32	0.01095	0.00616	n/a	n/a

Ohio EPA 0715 Outlier Algorithm, Pooled Background



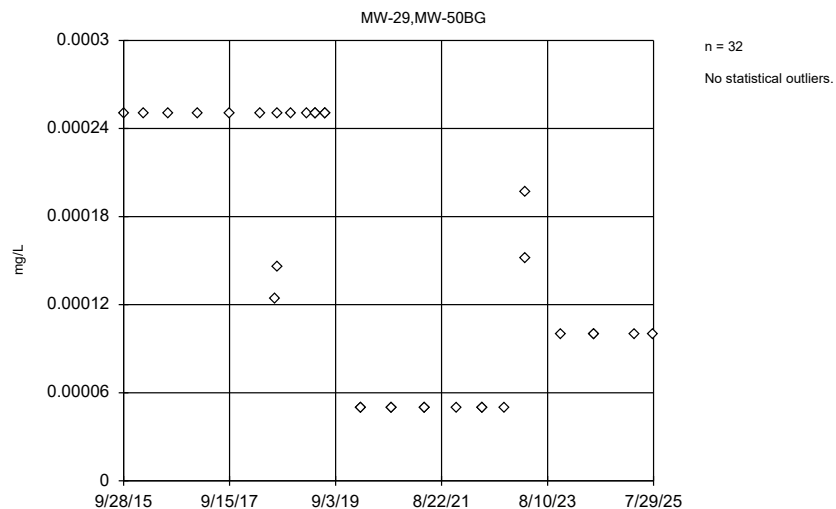
Constituent: Arsenic Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



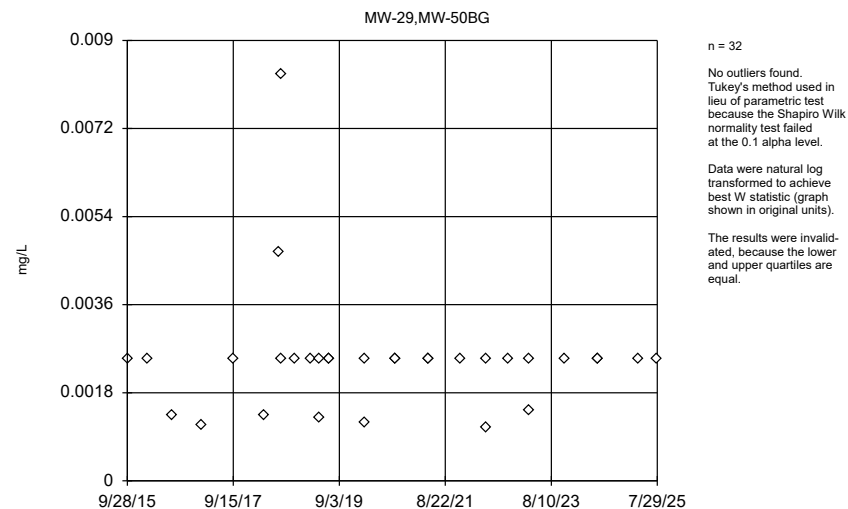
Constituent: Barium Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



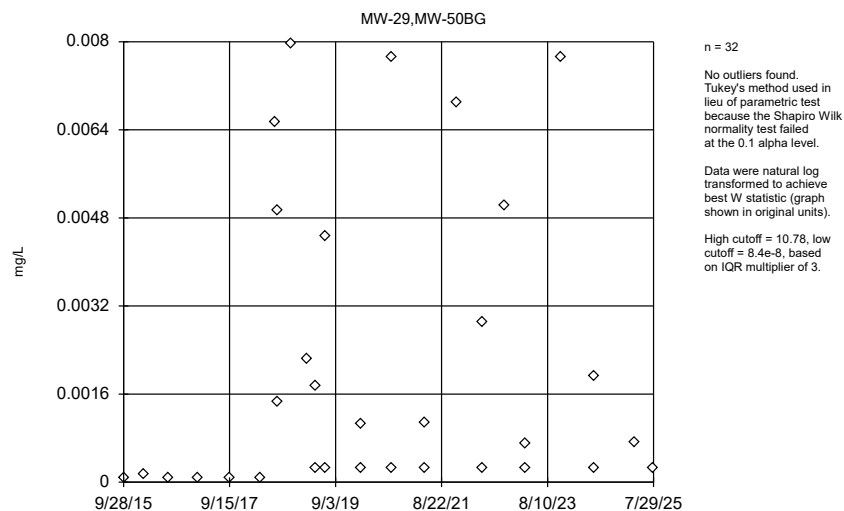
Constituent: Cadmium Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



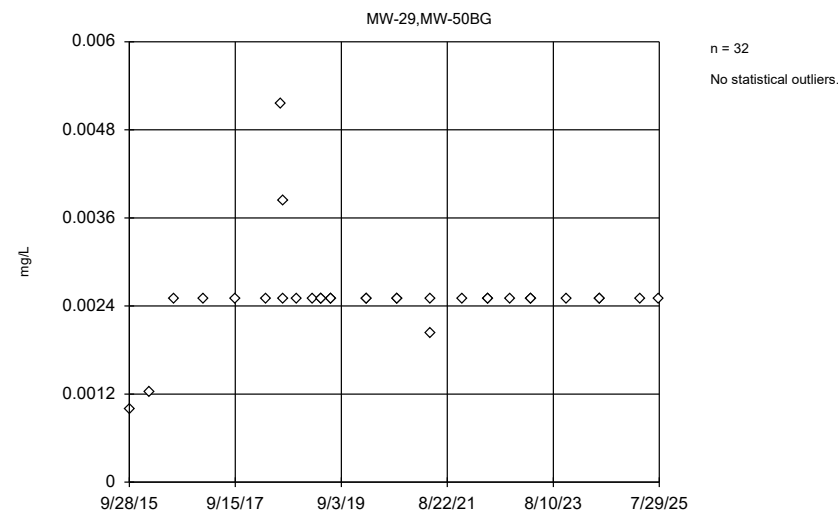
Constituent: Chromium Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



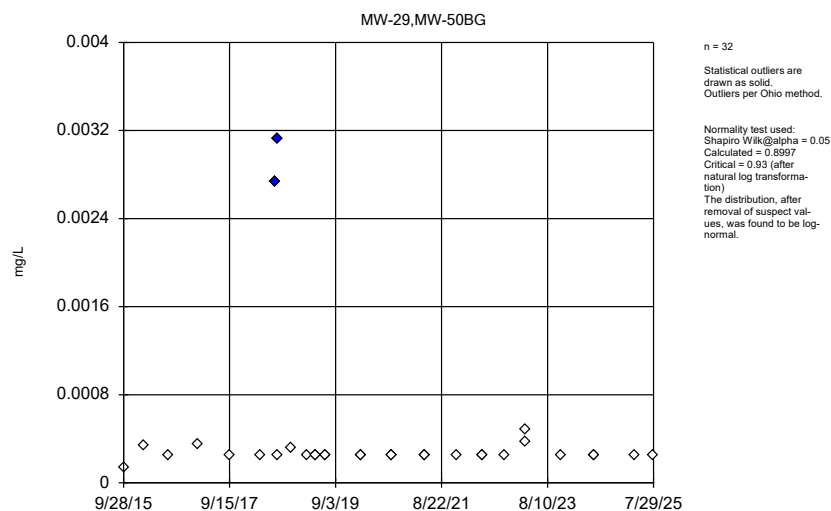
Constituent: Cobalt Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



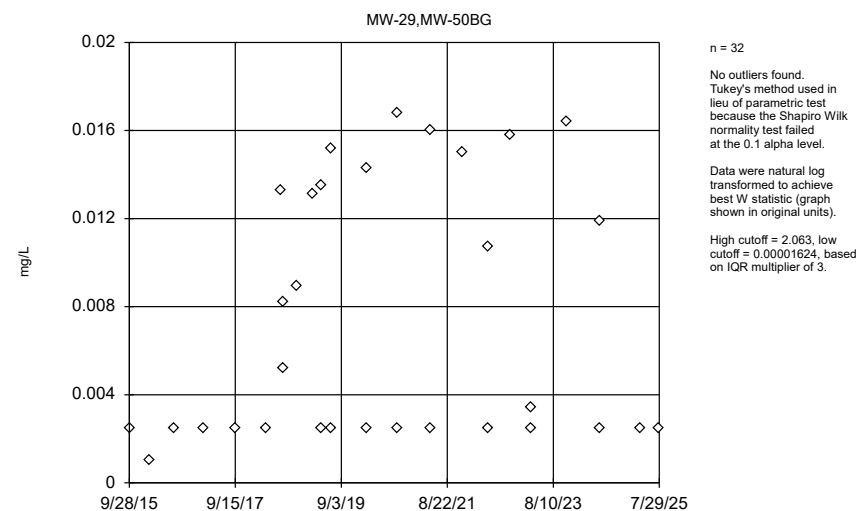
Constituent: Copper Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



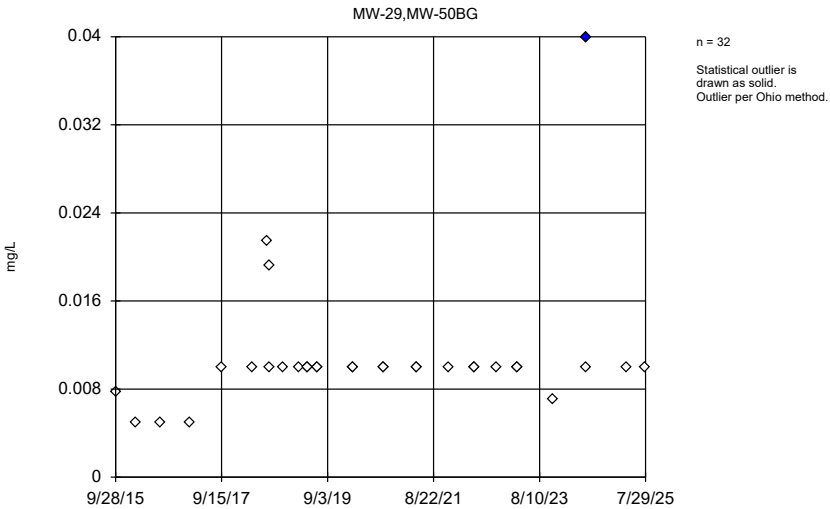
Constituent: Lead Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



Constituent: Nickel Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



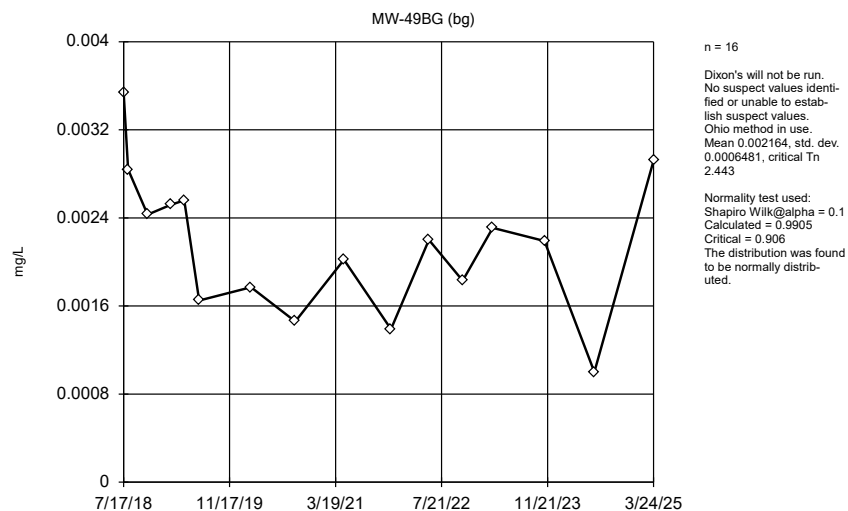
Constituent: Zinc Analysis Run 2/4/2026 11:08 AM View: 2025_AWQR-BG_WTOutliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

BedRock Outlier Analysis

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 1/27/2026, 10:14 AM

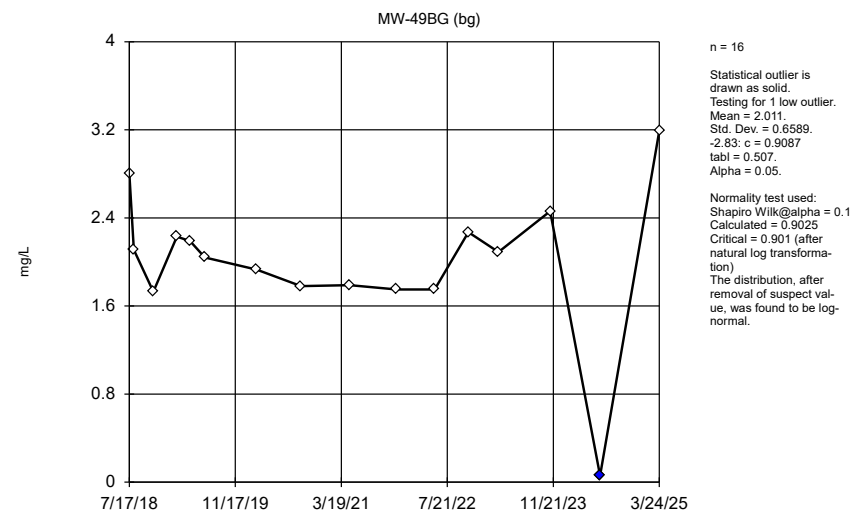
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-49BG (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.002164	0.0006481	normal	ShapiroWilk
Barium (mg/L)	MW-49BG (bg)	Yes	0.059	6/24/2024	Dixon/OH	0.05	16	2.011	0.6589	In(x)	ShapiroWilk
Cadmium (mg/L)	MW-49BG (bg)	No	n/a	n/a	OH	NaN	12	0.0001113	0.00008063	n/a	n/a
Chromium (mg/L)	MW-49BG (bg)	No	n/a	n/a	OH	NaN	12	0.002309	0.0004693	n/a	n/a
Cobalt (mg/L)	MW-49BG (bg)	Yes	0.0123	4/27/2021	Dixon/OH	0.05	16	0.006816	0.001817	normal	ShapiroWilk
Copper (mg/L)	MW-49BG (bg)	Yes	0.0286	6/24/2024	OH	NaN	16	0.004963	0.00644	n/a	n/a
Lead (mg/L)	MW-49BG (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	16	0.0004961	0.0005304	unknown	ShapiroWilk
Nickel (mg/L)	MW-49BG (bg)	Yes	0.0186	4/27/2021	Dixon/OH	0.05	16	0.007586	0.003492	normal	ShapiroWilk

EPA Screening (suspected outliers for Dixon's Test)



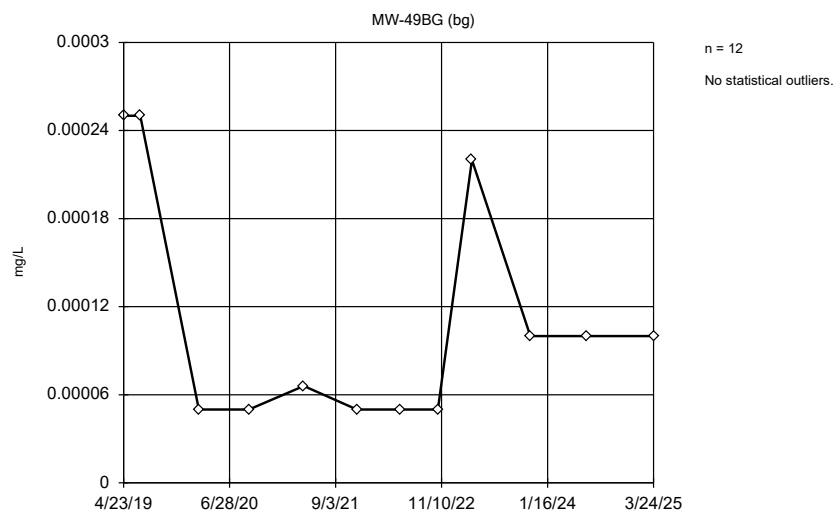
Constituent: Arsenic Analysis Run 1/27/2026 10:12 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



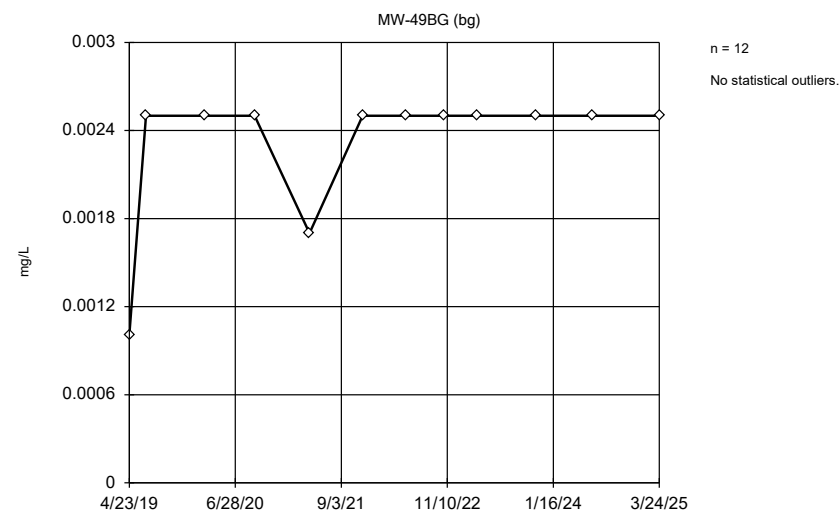
Constituent: Barium Analysis Run 1/27/2026 10:12 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



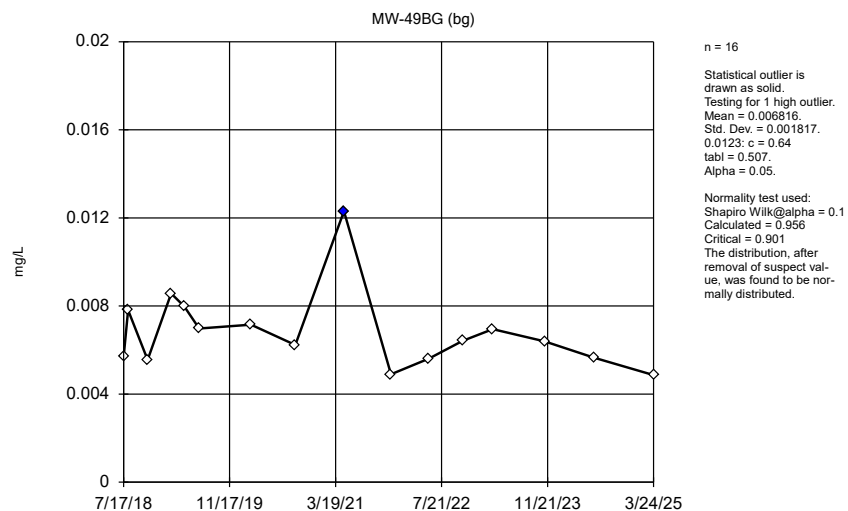
Constituent: Cadmium Analysis Run 1/27/2026 10:12 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



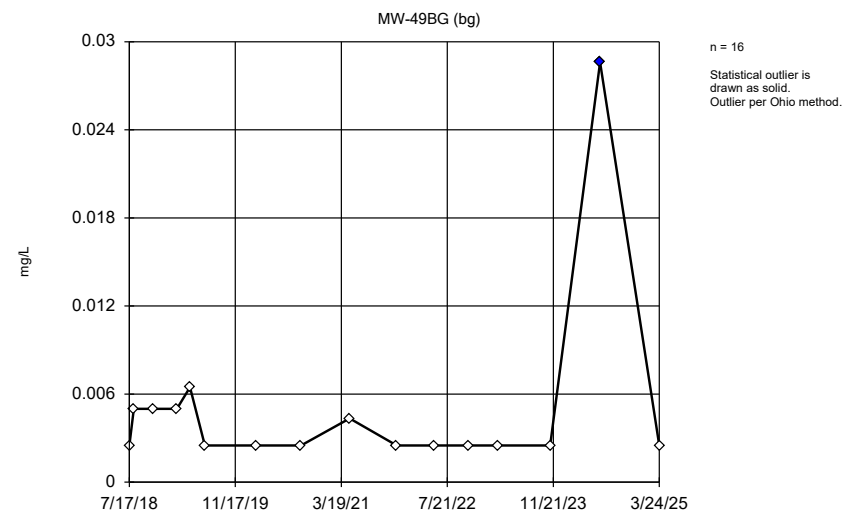
Constituent: Chromium Analysis Run 1/27/2026 10:13 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



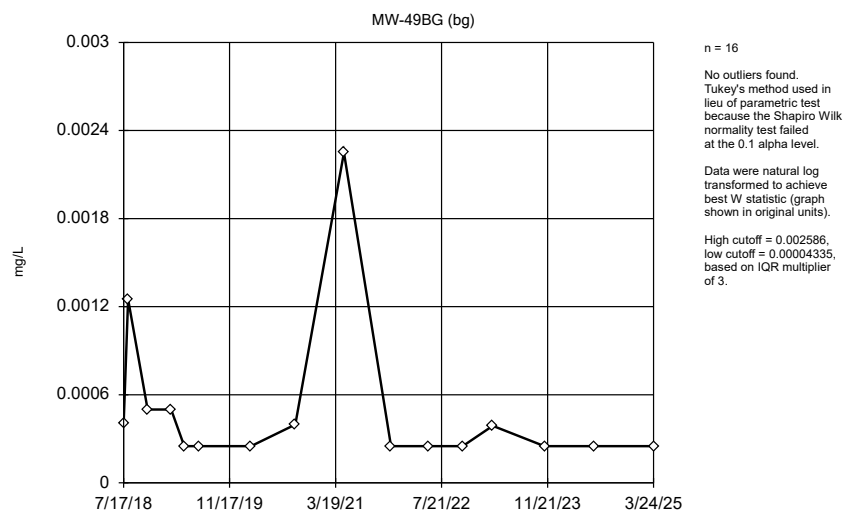
Constituent: Cobalt Analysis Run 1/27/2026 10:13 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Ohio EPA 0715 Outlier Algorithm



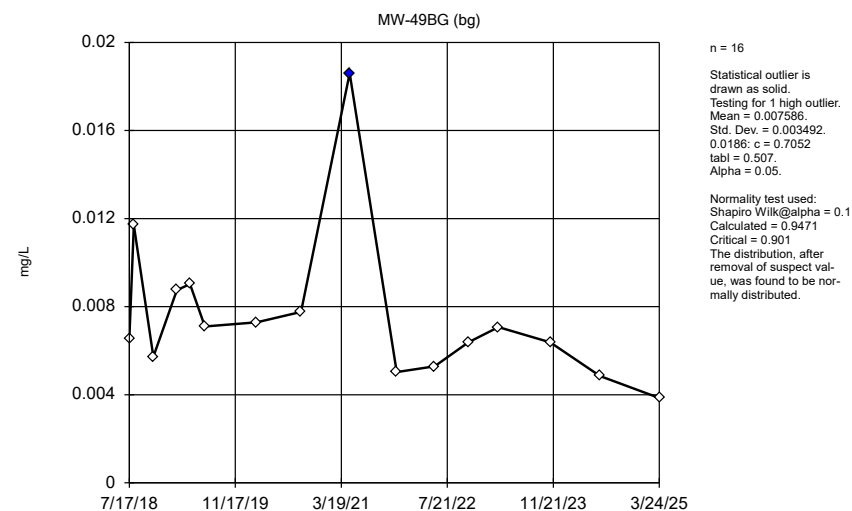
Constituent: Copper Analysis Run 1/27/2026 10:13 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



Constituent: Lead Analysis Run 1/27/2026 10:13 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



Constituent: Nickel Analysis Run 1/27/2026 10:13 AM View: 2025 AWQR BR Outliers
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Prediction Limit Summary Table and Graphs

Water Table Prediction Limit

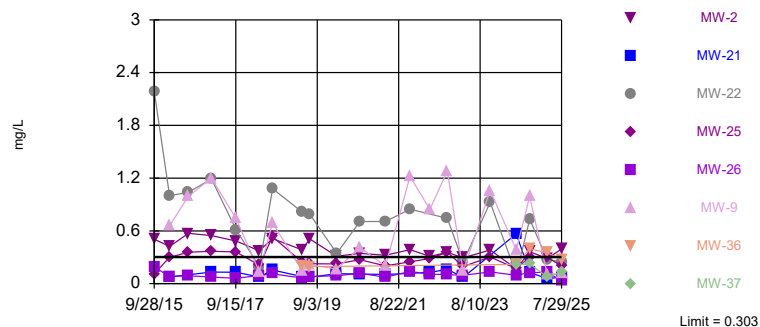
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 1/27/2026, 9:28 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-2	0.303	n/a	7/29/2025	0.393	Yes	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-21	0.303	n/a	7/29/2025	0.0732	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-22	0.303	n/a	7/29/2025	0.246	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-25	0.303	n/a	7/29/2025	0.204	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-26	0.303	n/a	7/29/2025	0.0342	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-9	0.303	n/a	7/29/2025	0.115	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-36	0.303	n/a	7/29/2025	0.279	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Barium (mg/L)	MW-37	0.303	n/a	7/29/2025	0.126	No	32	MW-29,MW-50BG	0	n/a	0.001709	NP Inter (normality) 1 of 2
Cobalt (mg/L)	MW-2	0.00797	n/a	7/29/2025	0.0344	Yes	32	MW-29,MW-50BG	25	n/a	0.001709	NP Inter (normality) 1 of 2
Cobalt (mg/L)	MW-26	0.00797	n/a	7/29/2025	0.000674	No	32	MW-29,MW-50BG	25	n/a	0.001709	NP Inter (normality) 1 of 2
Lead (mg/L)	MW-26	0.00312	n/a	7/29/2025	0.000708	No	32	MW-29,MW-50BG	75	n/a	0.001709	NP Inter (NDs) 1 of 2
Nickel (mg/L)	MW-2	0.0168	n/a	7/29/2025	0.015	No	32	MW-29,MW-50BG	46.88	n/a	0.001709	NP Inter (normality) 1 of 2
Zinc (mg/L)	MW-21	0.04	n/a	7/29/2025	0.02785	No	32	MW-29,MW-50BG	87.5	n/a	0.001709	NP Inter (NDs) 1 of 2

Exceeds Limit: MW-2

Prediction Limit

Interwell Non-parametric



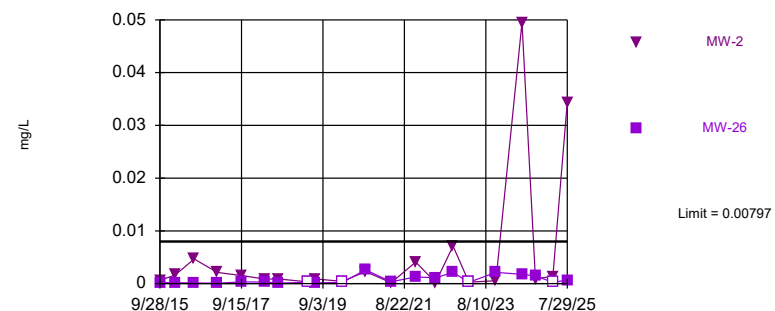
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.027. Individual comparison alpha = 0.001709 (1 of 2). Comparing 8 points to limit.

Constituent: Barium Analysis Run 1/27/2026 9:27 AM View: 2025_AWQR-WT_Interwell_PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Exceeds Limit: MW-2

Prediction Limit

Interwell Non-parametric



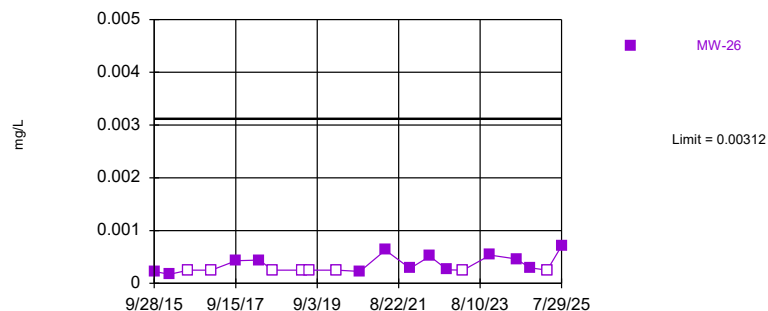
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 25% NDs. Annual per-constituent alpha = 0.027. Individual comparison alpha = 0.001709 (1 of 2). Comparing 2 points to limit. Assumes 6 future values.

Constituent: Cobalt Analysis Run 1/27/2026 9:27 AM View: 2025_AWQR-WT_Interwell_PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Within Limit

Prediction Limit

Interwell Non-parametric



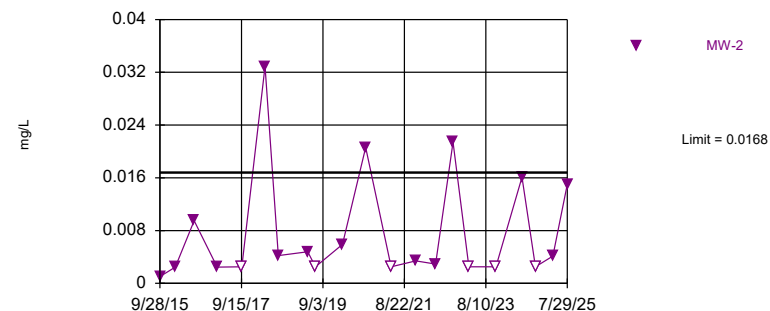
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 75% NDs. Annual per-constituent alpha = 0.027. Individual comparison alpha = 0.001709 (1 of 2). Assumes 7 future values.

Constituent: Lead Analysis Run 1/27/2026 9:27 AM View: 2025_AWQR-WT_Interwell_PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Within Limit

Prediction Limit

Interwell Non-parametric



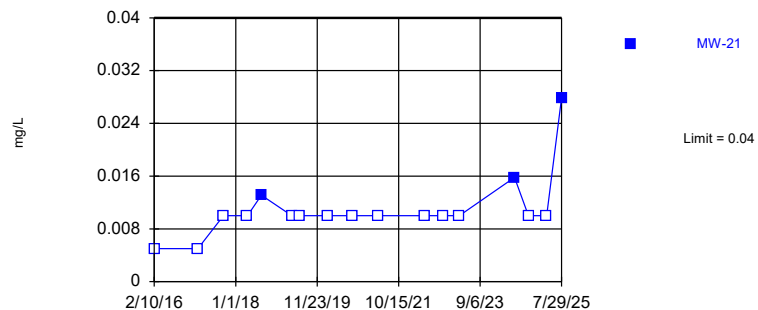
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 46.88% NDs. Annual per-constituent alpha = 0.027. Individual comparison alpha = 0.001709 (1 of 2). Assumes 7 future values.

Constituent: Nickel Analysis Run 1/27/2026 9:27 AM View: 2025_AWQR-WT_Interwell_PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

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 32 background values. 87.5% NDs. Annual per-constituent alpha = 0.027. Individual comparison alpha = 0.001709 (1 of 2). Assumes 7 future values.

Constituent: Zinc Analysis Run 1/27/2026 9:27 AM View: 2025_AWQR-WT_Interwell_PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

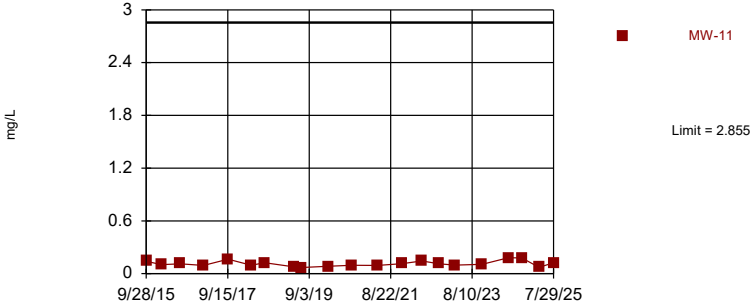
BedRock Prediction Limit

Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master Printed 1/27/2026, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-11	2.855	n/a	7/29/2025	0.125	No	16	MW-49BG	0	x^2	0.006563	Param Inter 1 of 2
Cadmium (mg/L)	MW-11	0.00025	n/a	7/29/2025	0.000283	Yes	12	MW-49BG	83.33	n/a	0.01077	NP Inter (NDs) 1 of 2

Within Limit

Prediction Limit
Interwell Parametric

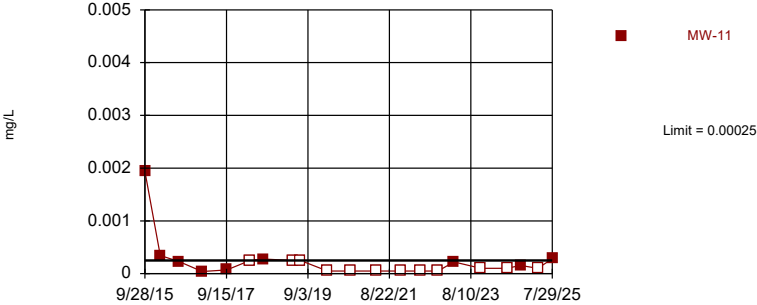


Background Data Summary (based on square transformation): Mean=4.449, Std. Dev.=2.27, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.844. Kappa = 1.63 (c=8, w=1, 1 of 2, event alpha = 0.05132). Report alpha = 0.006563.

Constituent: Barium Analysis Run 1/27/2026 10:31 AM View: 2025 AWQR BR PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Exceeds Limit: MW-11

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Cadmium Analysis Run 1/27/2026 10:31 AM View: 2025 AWQR BR PL
Muscatine County SLF Client: SCS Engineers Data: MCSWA Sanitas Master

Mann-Kendall Trend Test Summary Table and Graphs

Trend Test

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR Printed 1/27/2026, 1:24 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
1,1-Dichloroethane (ug/L)	MW-13	-0.04103	-10	-21	No	8	0	0.01	NP
1,4-Dichlorobenzene (ug/L)	MW-38	-0.01615	-2	-21	No	8	0	0.01	NP
2,4,5-TP [Silvex] [2C] (ug/L)	MW-12R	0.02091	9	21	No	8	50	0.01	NP
Acetone (ug/L)	MW-13	0	1	21	No	8	87.5	0.01	NP
Acetone (ug/L)	MW-37	-8.371	-5	-8	No	4	50	0.01	NP
Acetone (ug/L)	MW-38	2.372	14	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-4	-0.004749	-16	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-9	-0.0003153	-10	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-10A	0.001163	11	21	No	8	25	0.01	NP
Arsenic (mg/L)	MW-11	0	-2	-21	No	8	50	0.01	NP
Arsenic (mg/L)	MW-12R	0.001016	4	21	No	8	12.5	0.01	NP
Arsenic (mg/L)	MW-13	-0.0001873	-6	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-21	0	-2	-21	No	8	62.5	0.01	NP
Arsenic (mg/L)	MW-22	-0.0002136	-19	-21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-23	-0.004416	-6	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-26	-0.0002272	-11	-21	No	8	25	0.01	NP
Arsenic (mg/L)	MW-37	-0.001998	-4	-8	No	4	0	0.01	NP
Arsenic (mg/L)	MW-38	0.002195	4	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-39	-0.0001316	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-2	0.009892	4	21	No	8	0	0.01	NP
Barium (mg/L)	MW-4	-0.1218	-24	-21	Yes	8	0	0.01	NP
Barium (mg/L)	MW-9	-0.2244	-12	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-10A	-0.01891	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-11	-0.005889	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-12R	-0.03441	-4	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-13	-0.03374	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-20	0.003902	20	21	No	8	0	0.01	NP
Barium (mg/L)	MW-21	-0.009538	-5	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-22	-0.1389	-11	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-23	-0.01358	-6	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-24	-0.002122	-4	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-25	-0.01291	-6	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-26	-0.004071	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-36	0.01397	7	14	No	6	0	0.01	NP
Barium (mg/L)	MW-37	-0.1038	-2	-8	No	4	0	0.01	NP
Barium (mg/L)	MW-38	0.4657	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-39	-0.01712	-13	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-9	-0.2099	-13	-21	No	8	37.5	0.01	NP
Benzene (ug/L)	MW-12R	-0.07221	-6	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-22	-0.08903	-9	-21	No	8	37.5	0.01	NP
Benzene (ug/L)	MW-23	-0.02031	-6	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-38	0.3115	16	21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-2	0.00001752	12	21	No	8	62.5	0.01	NP
Cadmium (mg/L)	MW-9	-0.00006774	-5	-21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-11	0.00003219	14	21	No	8	62.5	0.01	NP
Cadmium (mg/L)	MW-13	0	7	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-21	0.00001061	4	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-22	0.000004725	7	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-24	0.00001394	13	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-26	0	3	21	No	8	87.5	0.01	NP

Trend Test

Muscatine County SLF

Client: SCS Engineers

Data: MCSWA_AM_2025_AWQR

Printed 1/27/2026, 1:24 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Cadmium (mg/L)	MW-39	0	7	21	No	8	87.5	0.01	NP
Carbon Disulfide (ug/L)	MW-23	-0.4385	-14	-21	No	8	50	0.01	NP
Chlorobenzene (ug/L)	MW-9	-8.9	-11	-21	No	8	37.5	0.01	NP
Chlorobenzene (ug/L)	MW-12R	0.04591	6	21	No	8	0	0.01	NP
Chlorobenzene (ug/L)	MW-23	1.095	12	21	No	8	0	0.01	NP
Chlorobenzene (ug/L)	MW-38	1.363	19	21	No	8	0	0.01	NP
Chlorobenzene (ug/L)	MW-39	-0.009951	-10	-21	No	8	50	0.01	NP
Chloroethane (ug/L)	MW-23	-0.7363	-20	-21	No	8	0	0.01	NP
Chromium (mg/L)	MW-23	-0.01542	-2	-21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-9	-0.26	-9	-21	No	8	37.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-11	-0.1946	-10	-21	No	8	50	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-13	0.9381	10	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-23	-0.0269	-2	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-2	0.0004657	14	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-4	-0.0003636	-12	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-9	-0.004316	-11	-21	No	8	37.5	0.01	NP
Cobalt (mg/L)	MW-10A	0.00008704	4	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-11	-0.00005779	-8	-21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-12R	-0.0001544	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-20	0.000006807	6	21	No	8	50	0.01	NP
Cobalt (mg/L)	MW-22	-0.0003387	-5	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-23	-0.0009391	-12	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-26	-0.0003145	-8	-21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-37	-0.0001109	-11	-14	No	6	16.67	0.01	NP
Cobalt (mg/L)	MW-38	-0.0003274	0	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-39	-0.001229	-14	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-23	-0.0003147	-5	-21	No	8	37.5	0.01	NP
Copper (mg/L)	MW-24	0	4	21	No	8	62.5	0.01	NP
Copper (mg/L)	MW-26	0	1	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-36	-0.00115	-3	-8	No	4	75	0.01	NP
Copper (mg/L)	MW-39	0	-1	-21	No	8	75	0.01	NP
Endosulfan I (ug/L)	MW-38	-0.1547	-4	-21	No	8	50	0.01	NP
Ethylbenzene (ug/L)	MW-38	0	-4	-21	No	8	62.5	0.01	NP
Lead (mg/L)	MW-13	0	2	21	No	8	62.5	0.01	NP
Lead (mg/L)	MW-21	0	-3	-21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-23	0.00007751	4	21	No	8	12.5	0.01	NP
Lead (mg/L)	MW-26	0.000008233	1	21	No	8	25	0.01	NP
Lead (mg/L)	MW-37	-0.00004724	-3	-8	No	4	50	0.01	NP
Lead (mg/L)	MW-39	-0.000006706	-6	-21	No	8	50	0.01	NP
Nickel (mg/L)	MW-2	0	1	21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-9	-0.007423	-19	-21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-10A	-0.0001938	-5	-21	No	8	25	0.01	NP
Nickel (mg/L)	MW-11	0	-8	-21	No	8	62.5	0.01	NP
Nickel (mg/L)	MW-12R	-0.0003868	-2	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-20	0	7	21	No	8	75	0.01	NP
Nickel (mg/L)	MW-22	-0.001544	-5	-21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-23	-0.01857	-12	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-36	-0.001385	-2	-8	No	4	0	0.01	NP
Nickel (mg/L)	MW-38	0.0003973	2	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-39	-0.001639	-6	-21	No	8	0	0.01	NP

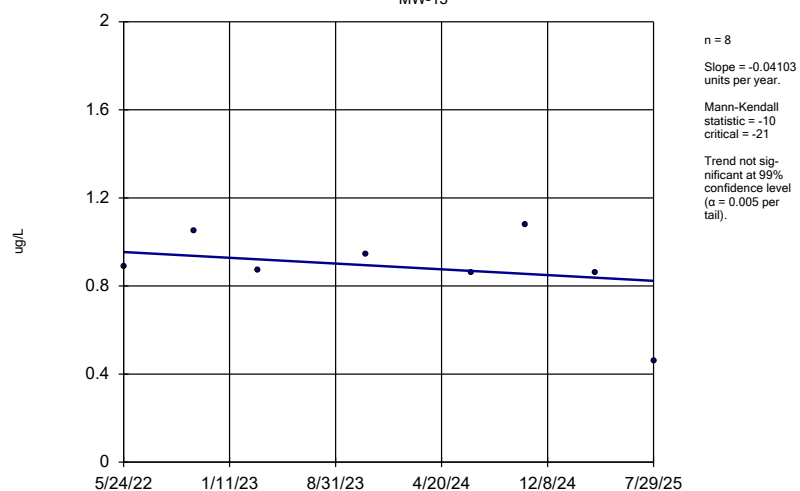
Trend Test

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR Printed 1/27/2026, 1:24 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	MW-20	0.000787	15	21	No	8	25	0.01	NP
Selenium (mg/L)	MW-39	0	0	21	No	8	62.5	0.01	NP
Sulfide (mg/L)	MW-26	0.05815	9	18	No	7	57.14	0.01	NP
Thallium (mg/L)	MW-13	0	-1	-21	No	8	87.5	0.01	NP
Vinyl Chloride (ug/L)	MW-13	-0.1632	-6	-21	No	8	0	0.01	NP
Zinc (mg/L)	MW-2	0	1	21	No	8	87.5	0.01	NP
Zinc (mg/L)	MW-21	0	9	21	No	8	75	0.01	NP
Zinc (mg/L)	MW-23	0	7	21	No	8	87.5	0.01	NP

Sen's Slope Estimator

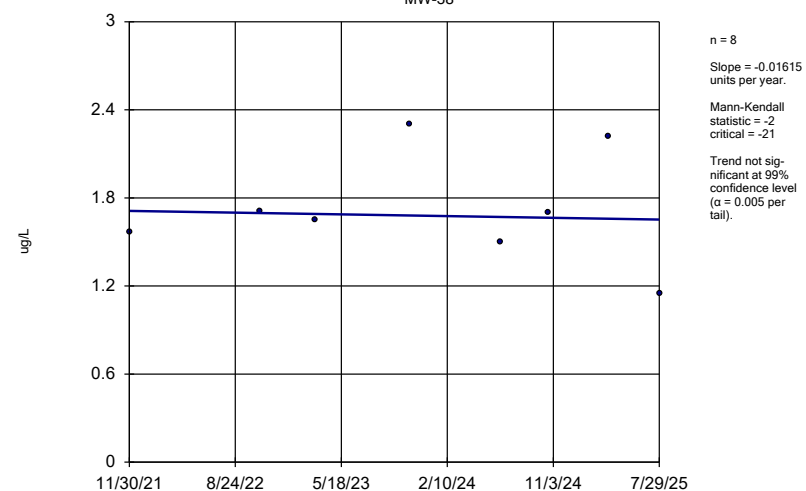
MW-13



Constituent: 1,1-Dichloroethane Analysis Run 1/27/2026 1:18 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

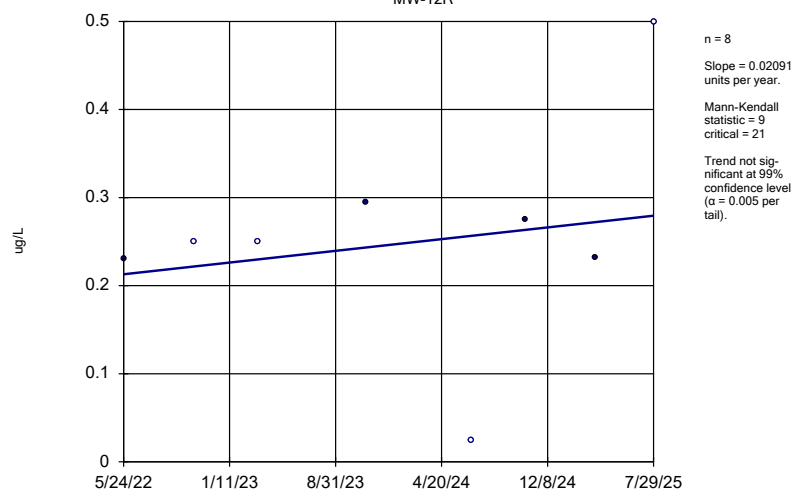
MW-38



Constituent: 1,4-Dichlorobenzene Analysis Run 1/27/2026 1:18 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

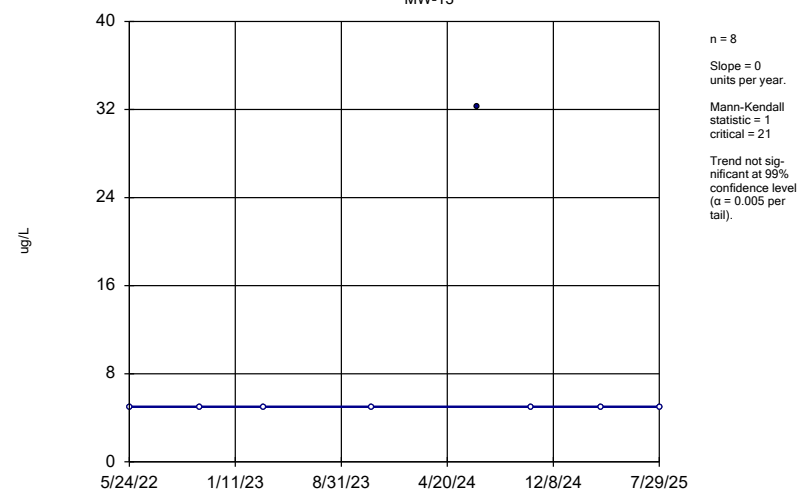
MW-12R



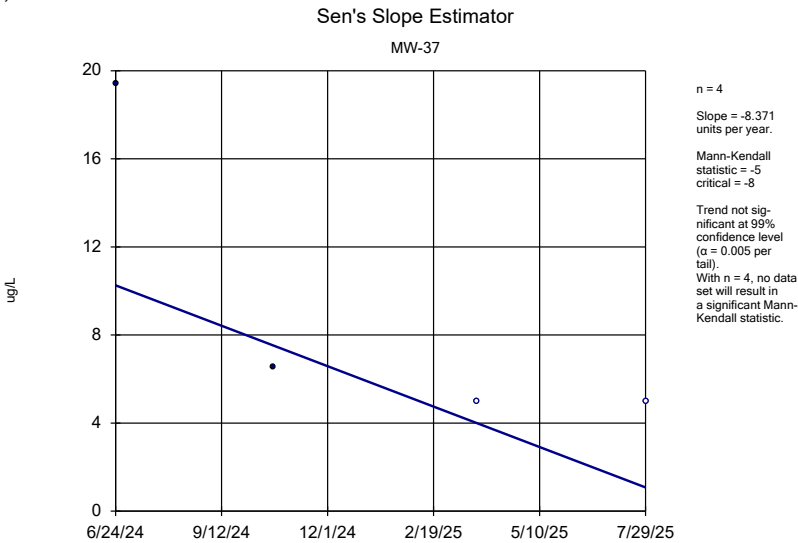
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/27/2026 1:18 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

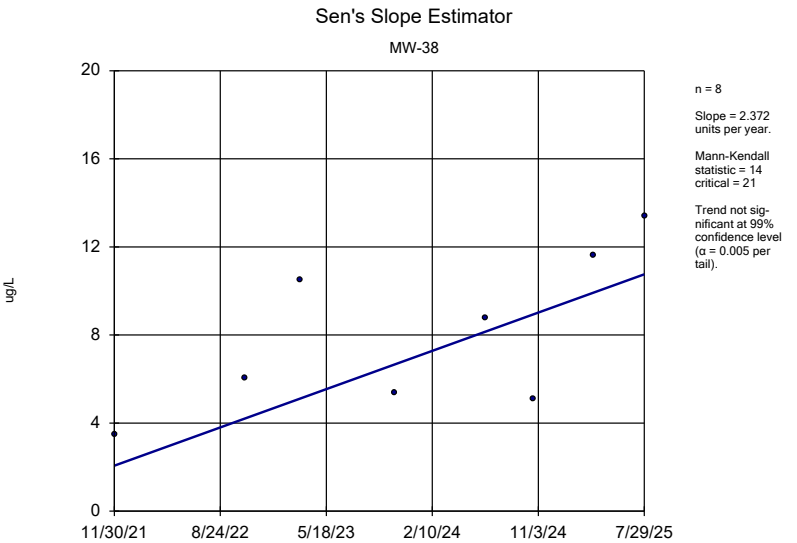
MW-13



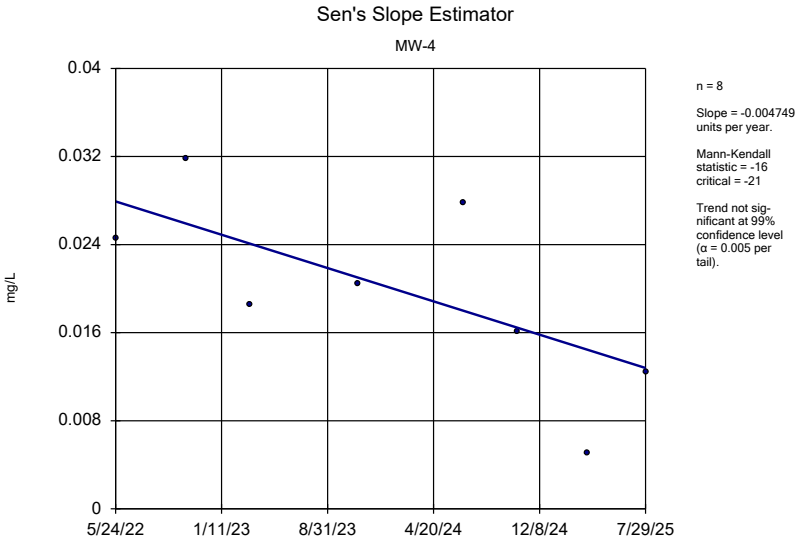
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



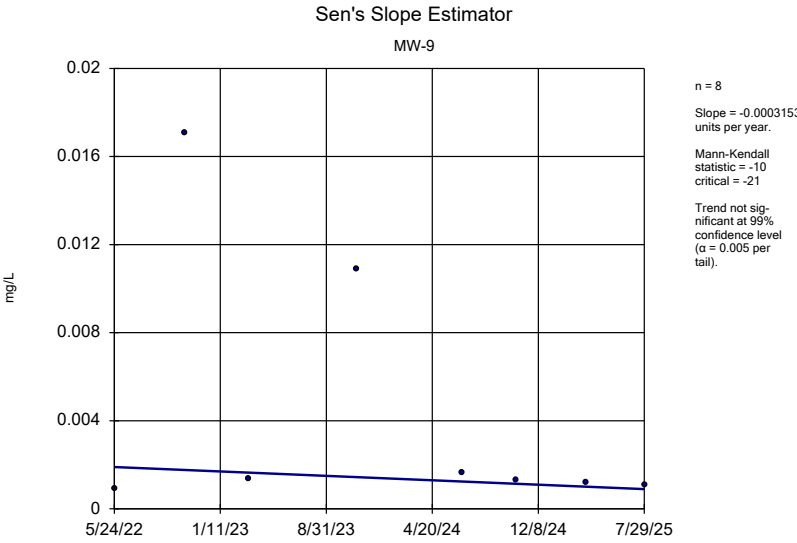
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



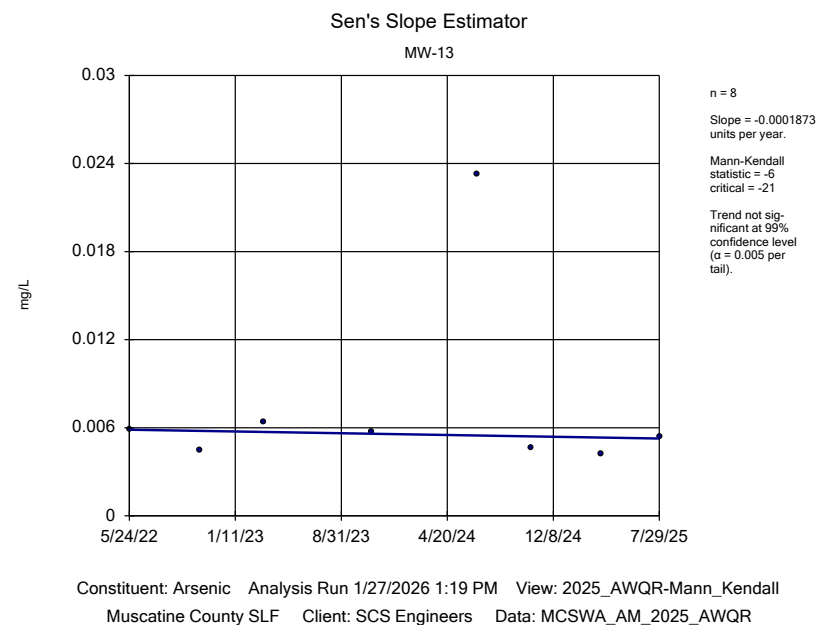
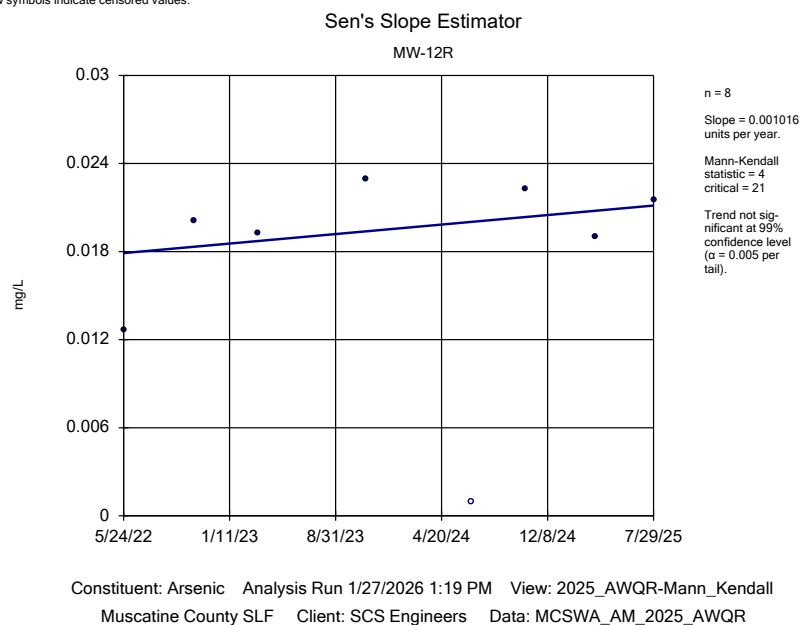
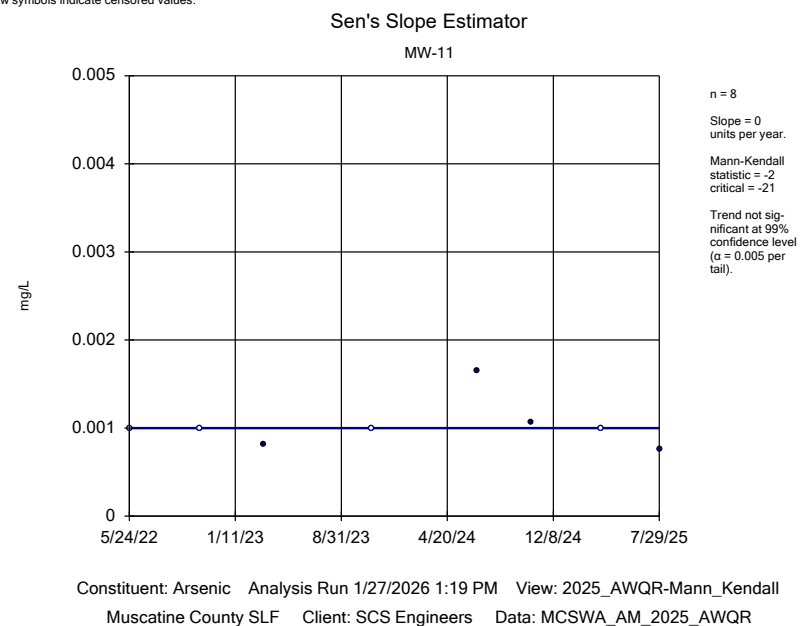
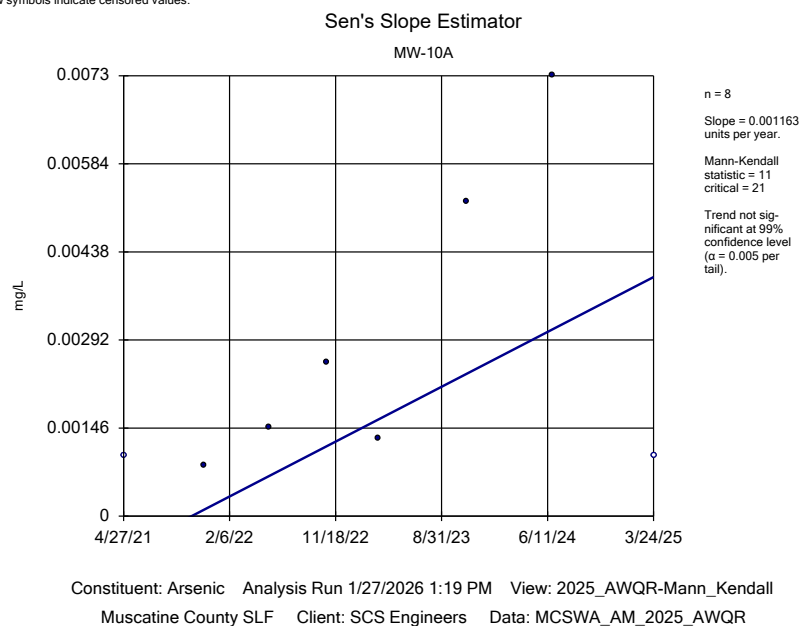
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

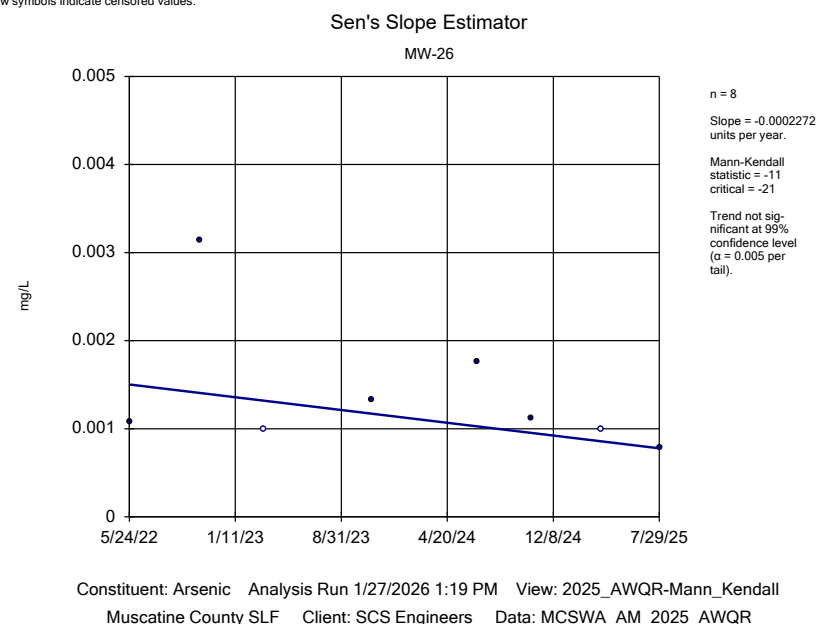
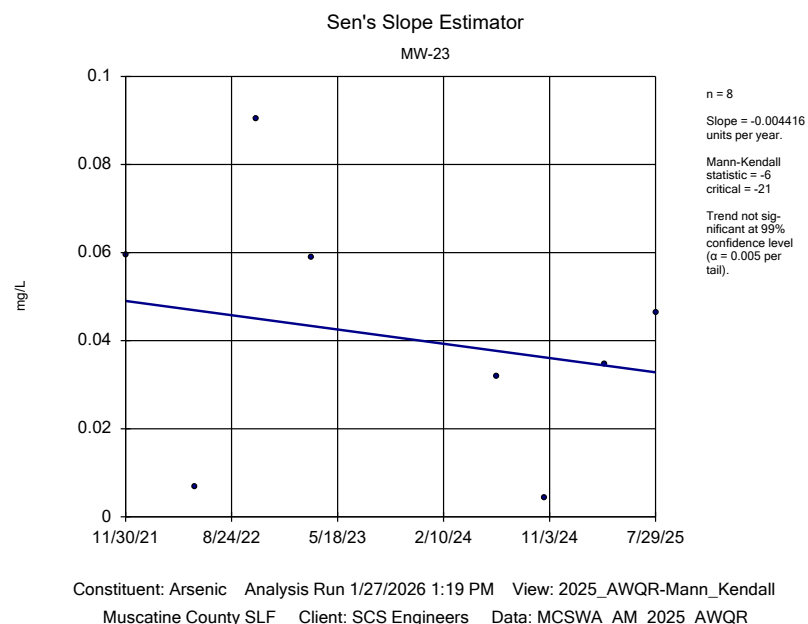
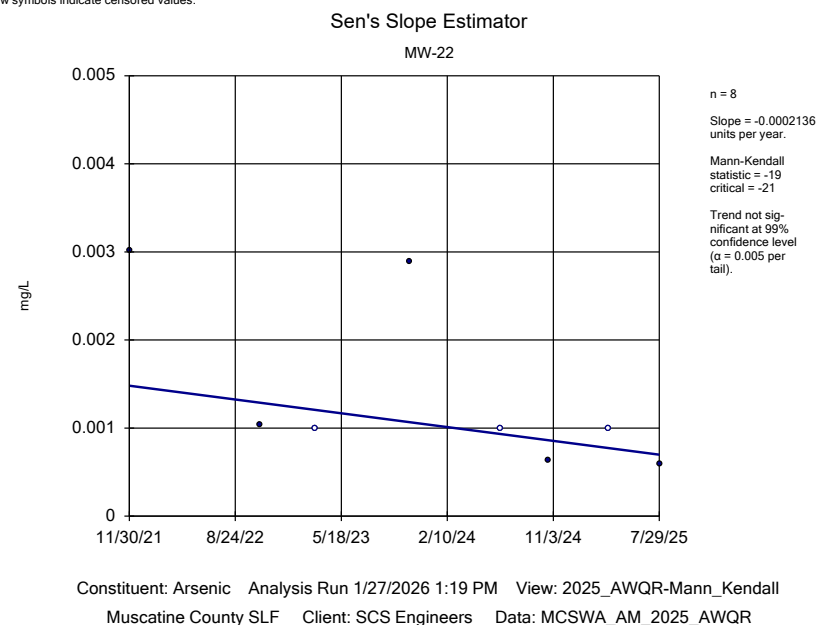
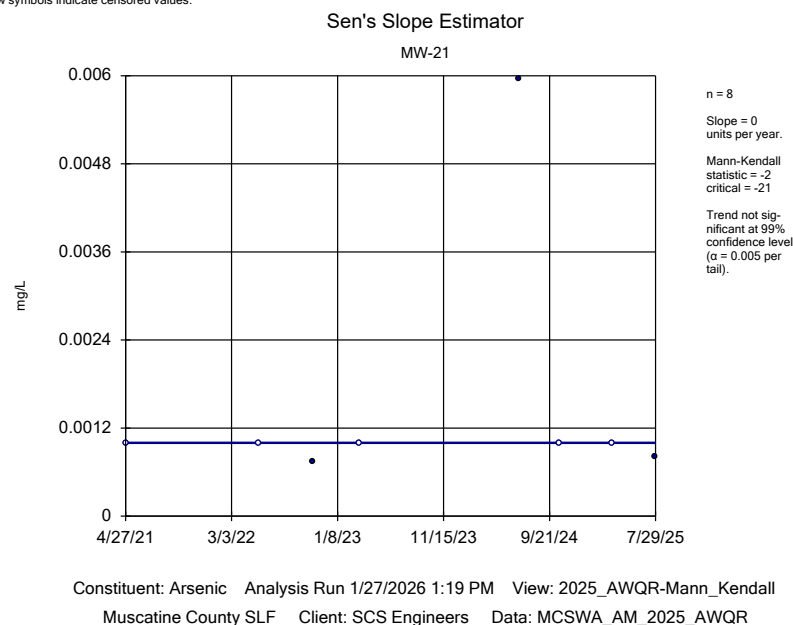


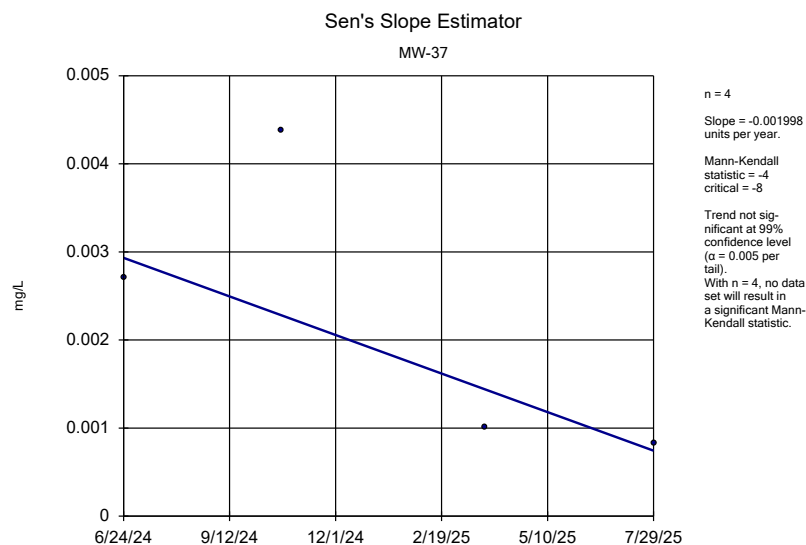
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



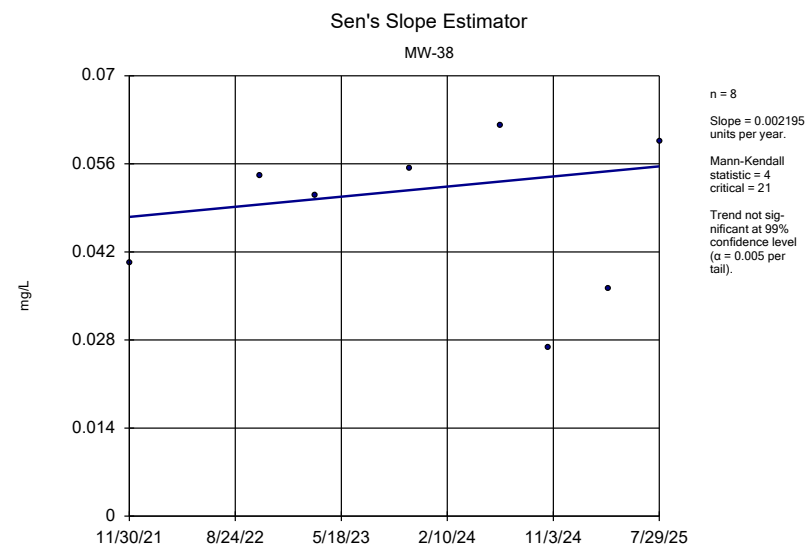
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



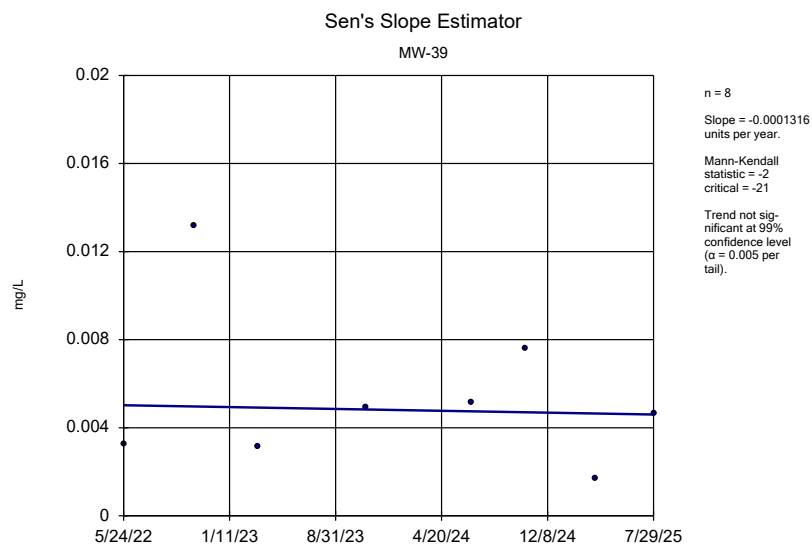




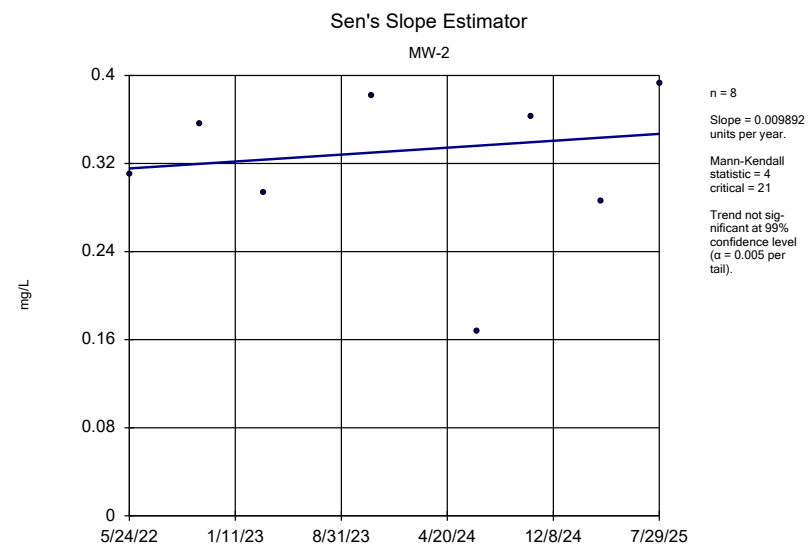
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



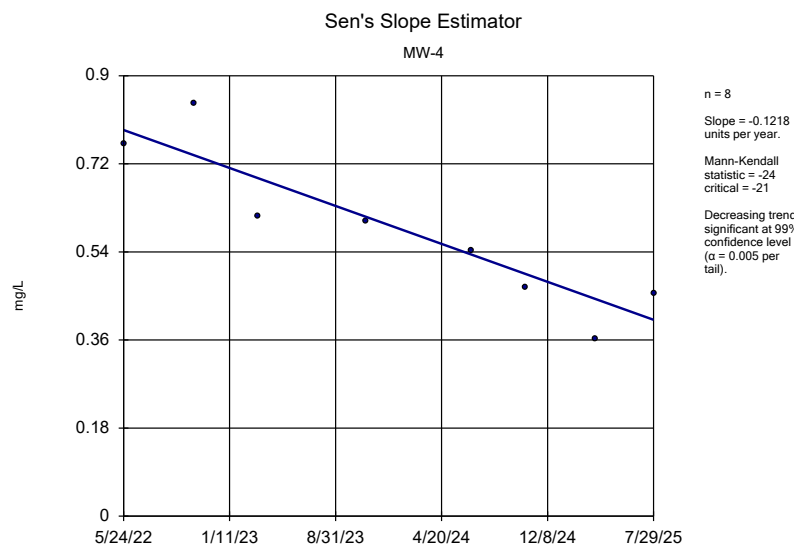
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



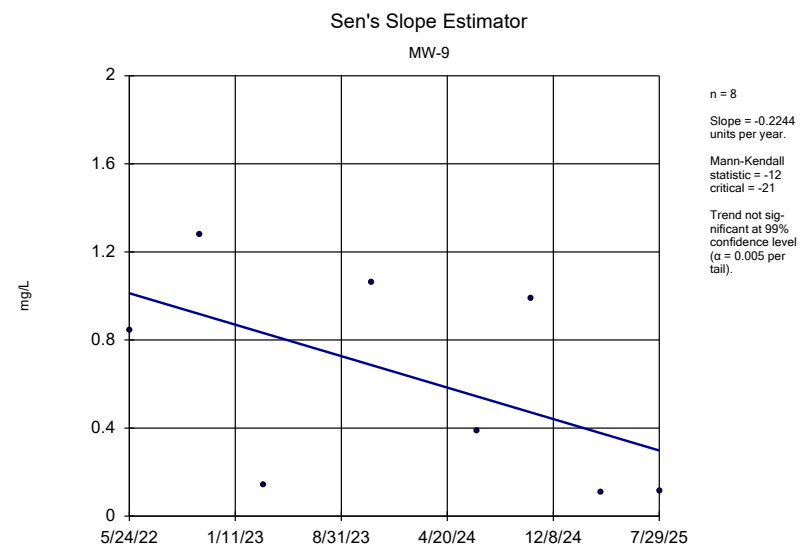
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



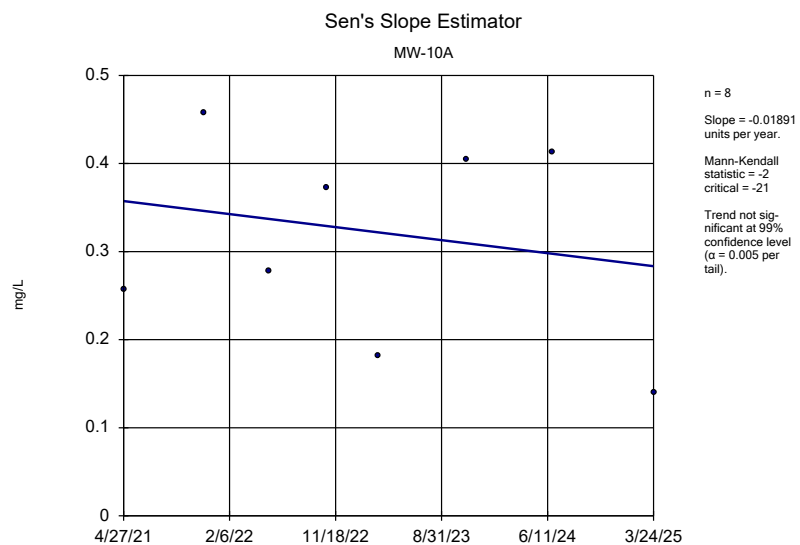
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



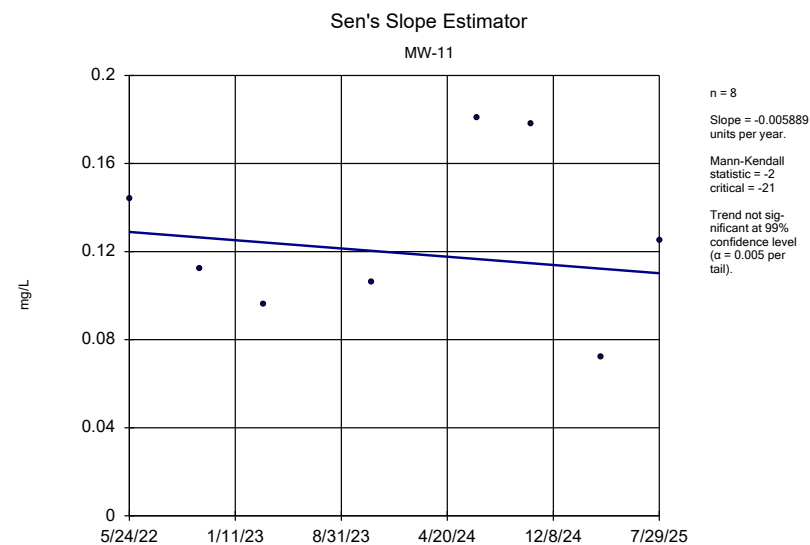
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



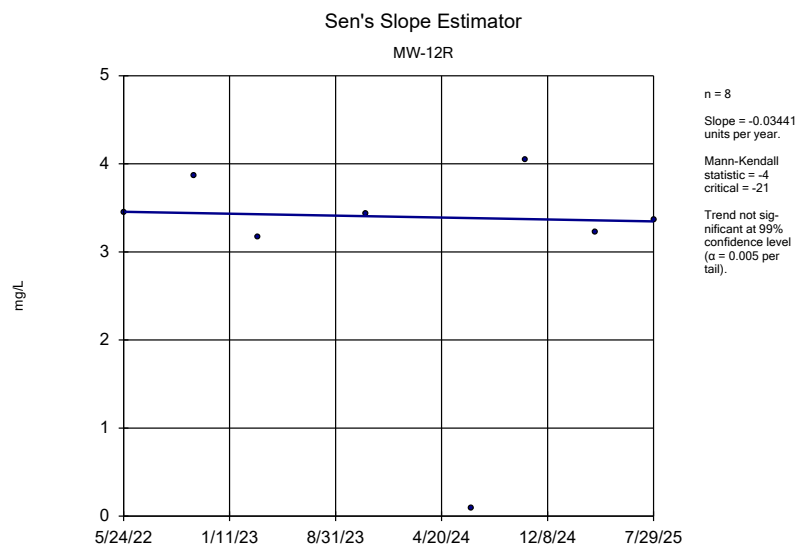
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



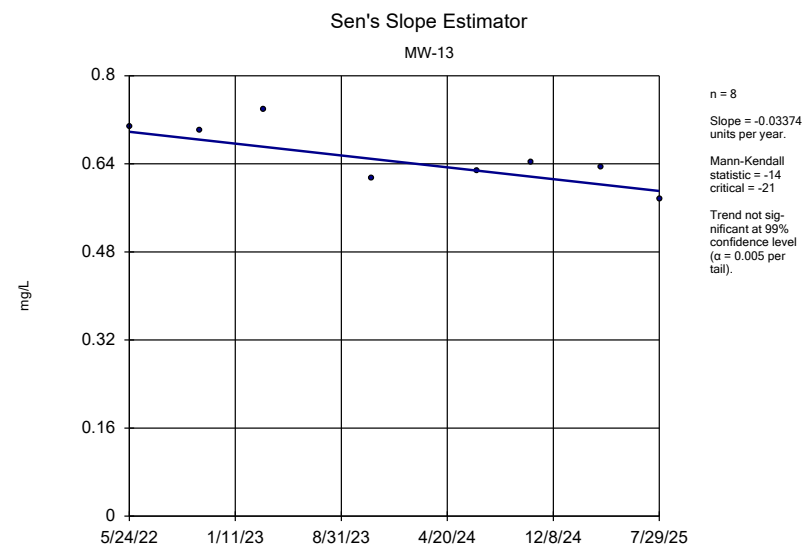
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



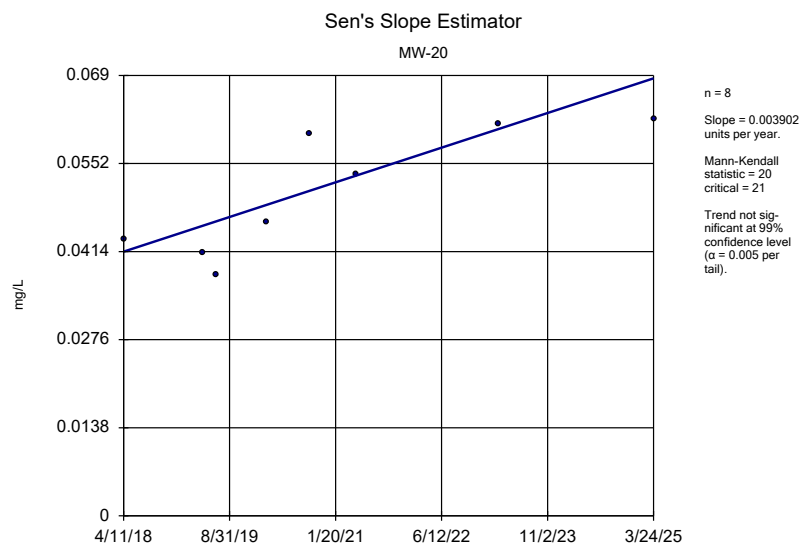
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



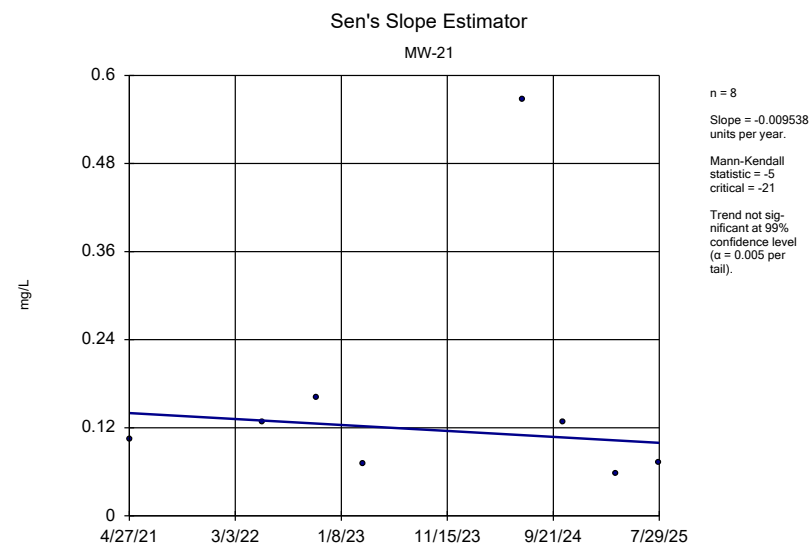
Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



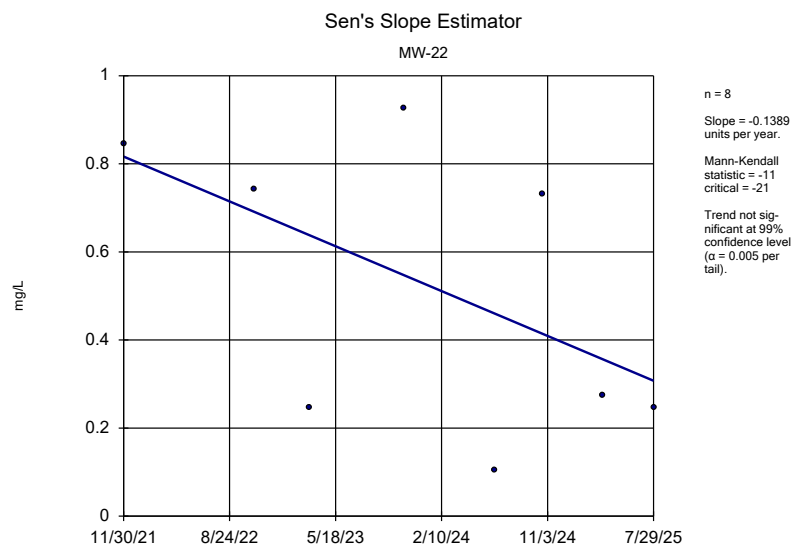
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



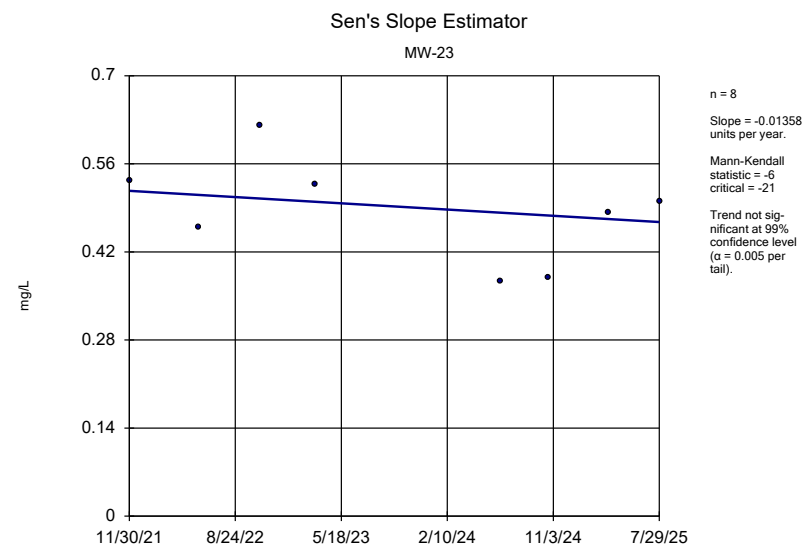
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



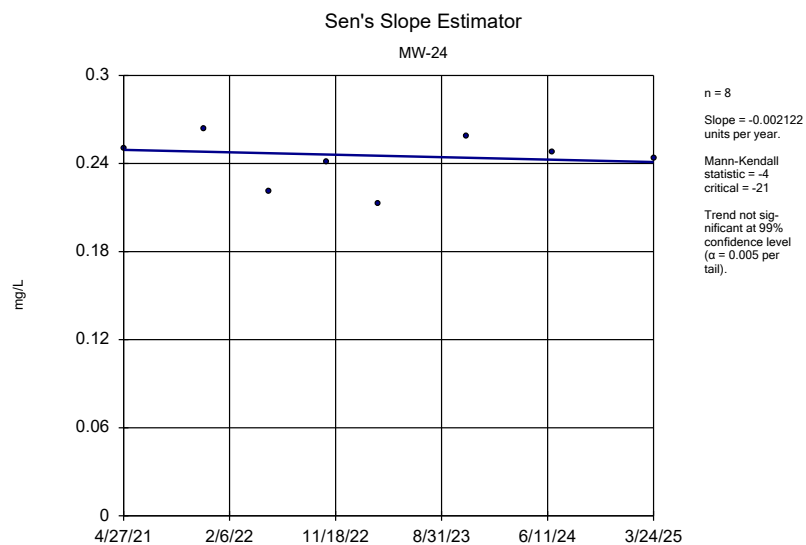
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



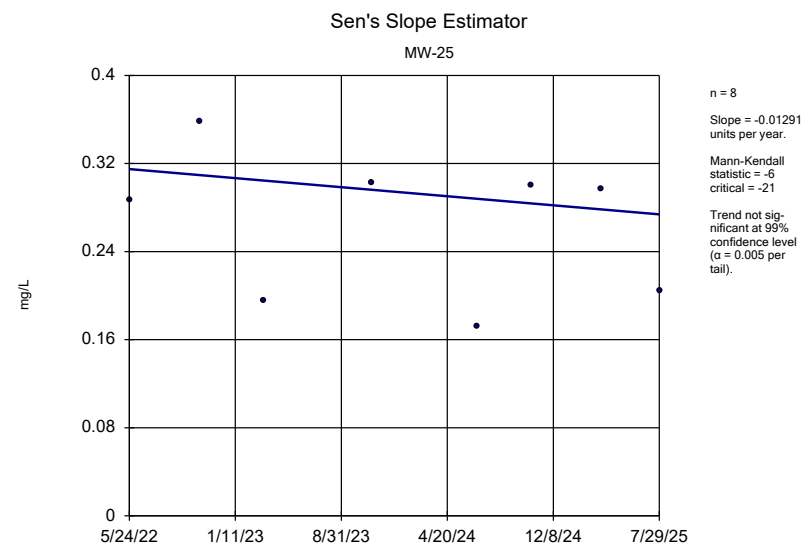
Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



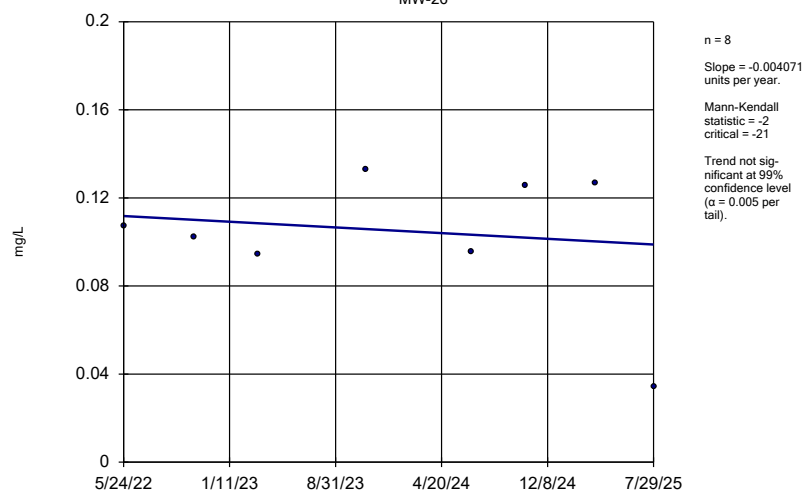
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

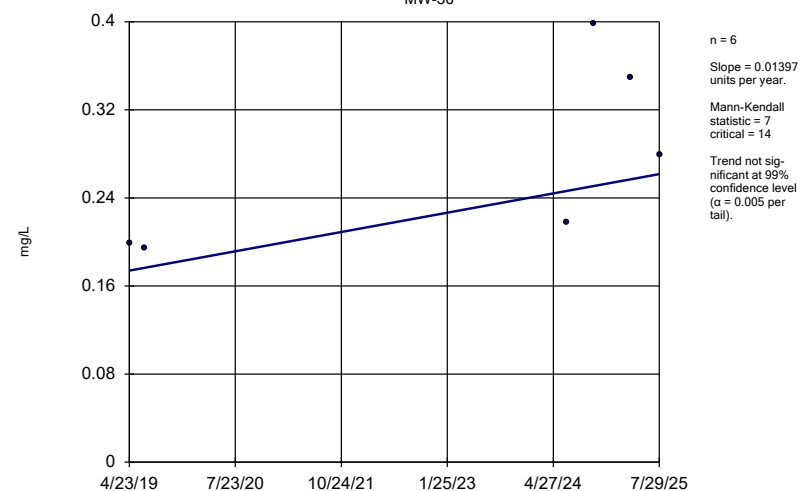
MW-26



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

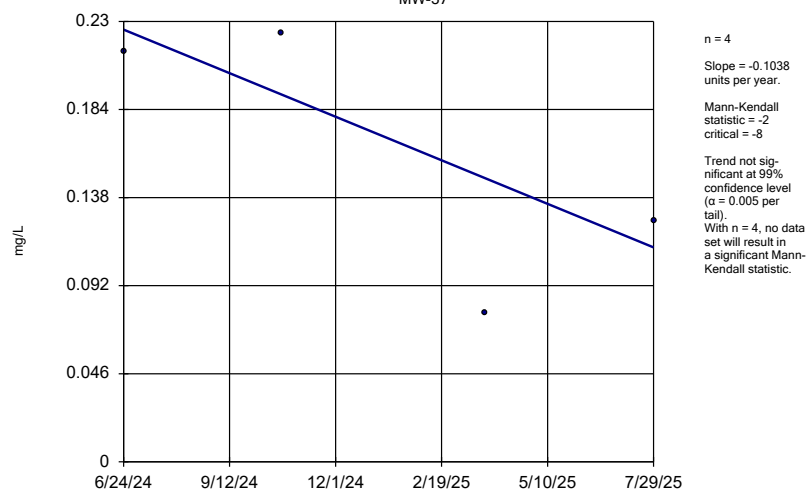
MW-36



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

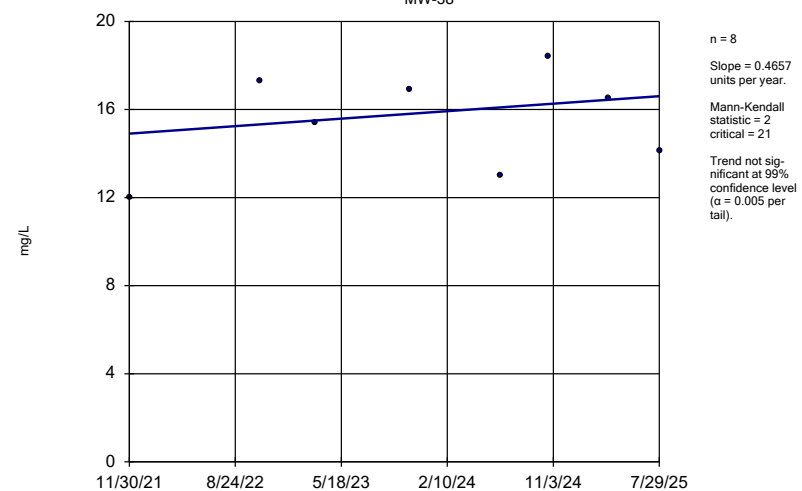
MW-37



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

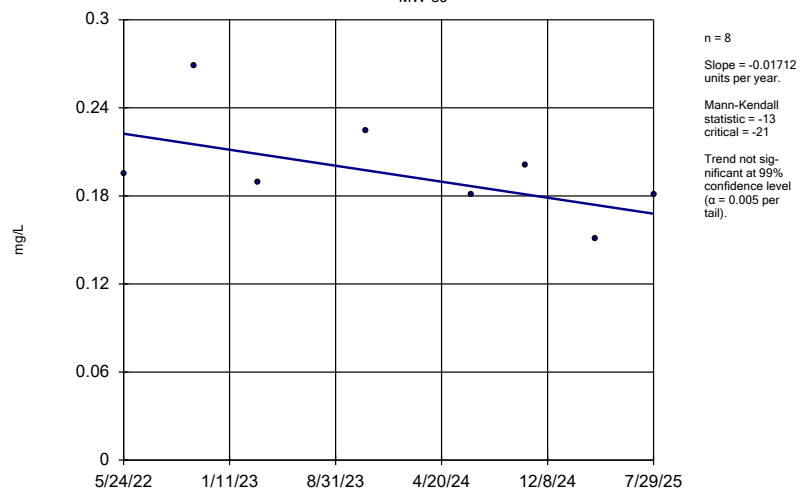
MW-38



Constituent: Barium Analysis Run 1/27/2026 1:19 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

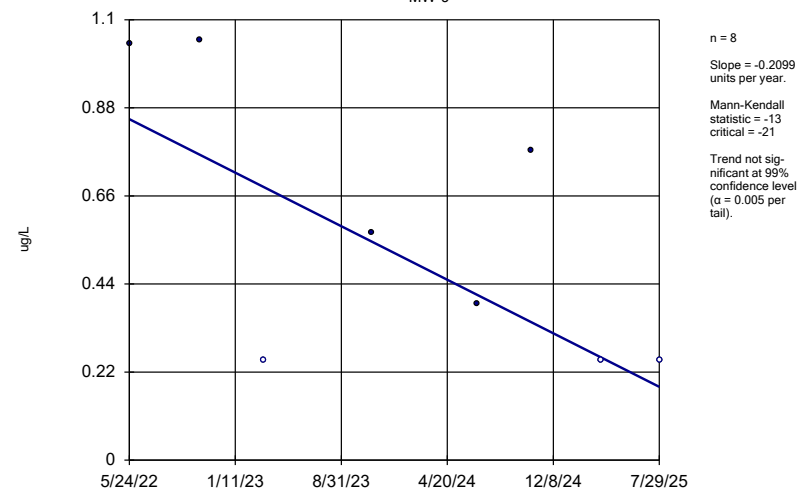
MW-39



Constituent: Barium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

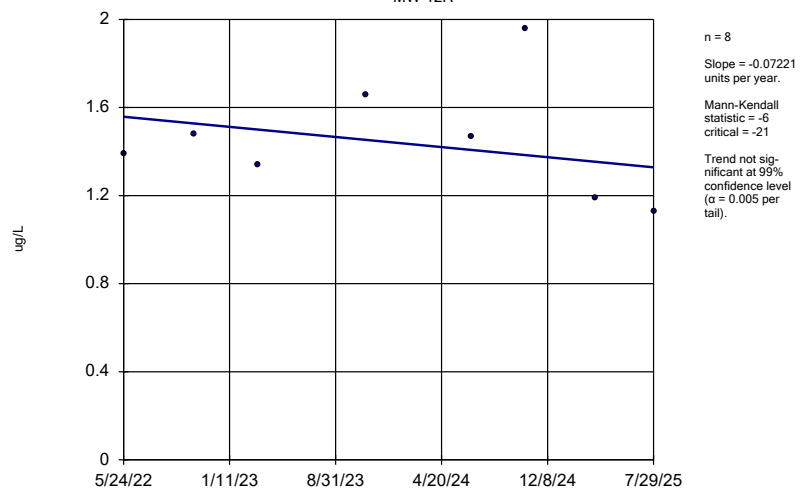
MW-9



Constituent: Benzene Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

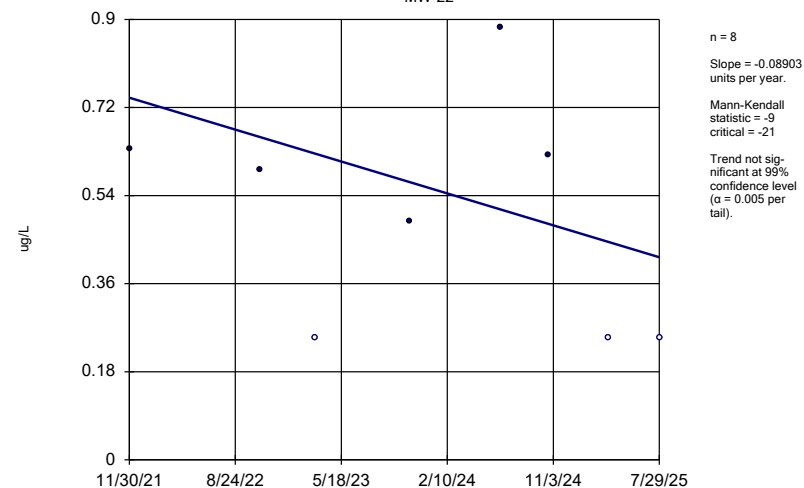
MW-12R



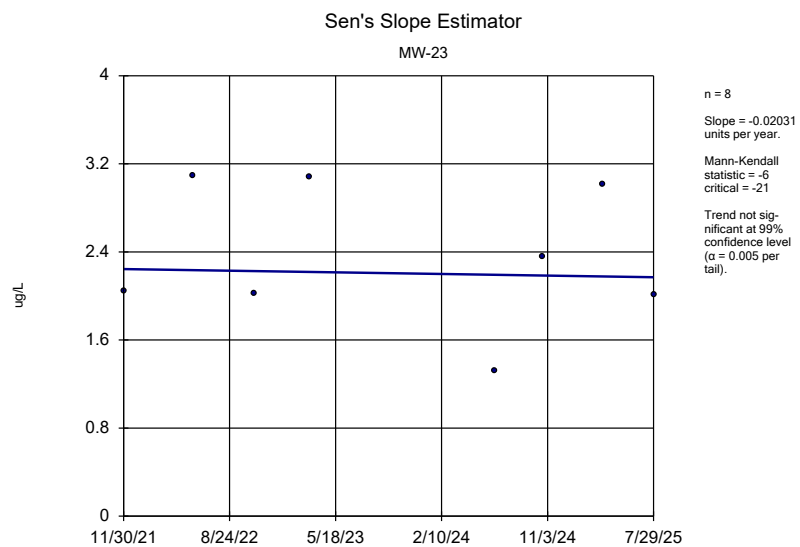
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

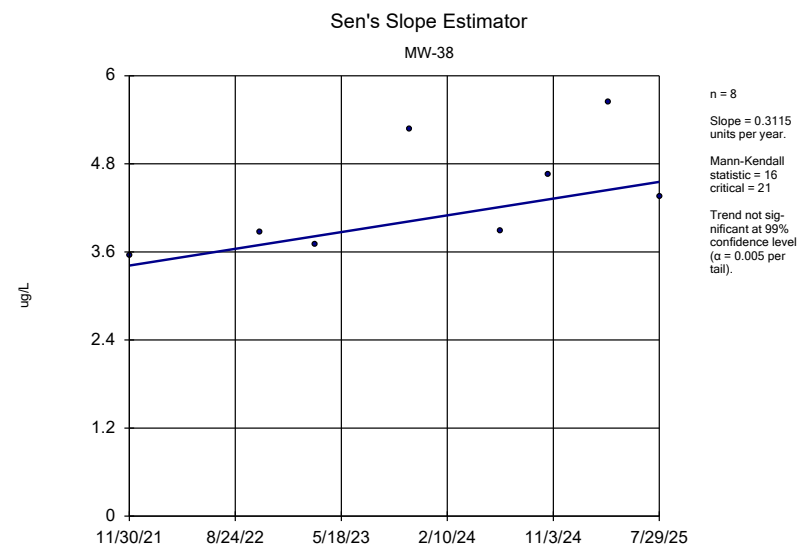
MW-22



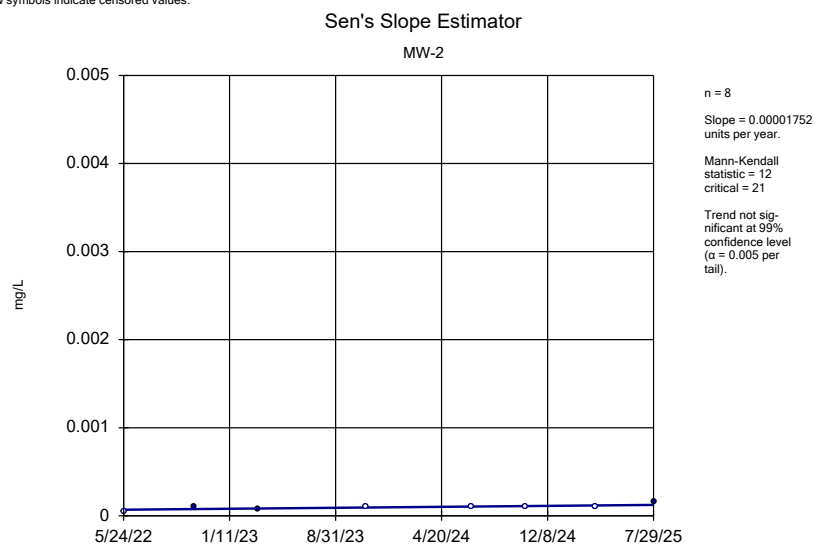
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



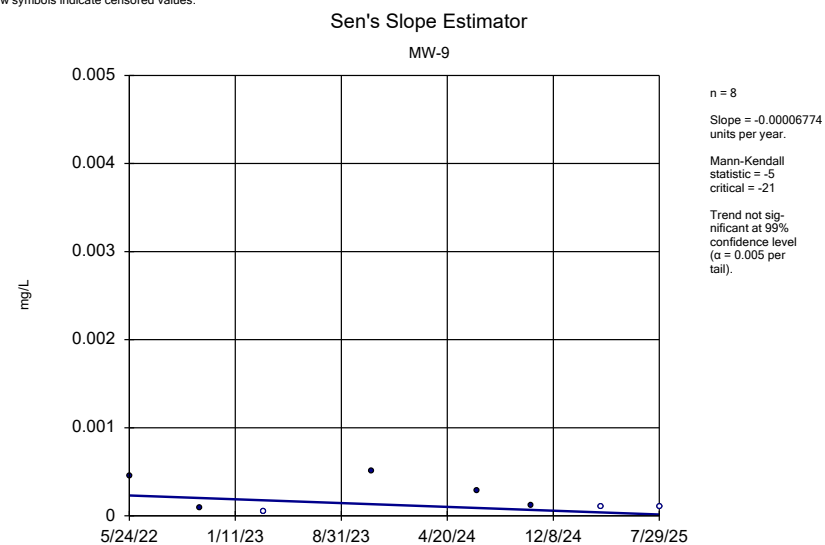
Constituent: Benzene Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



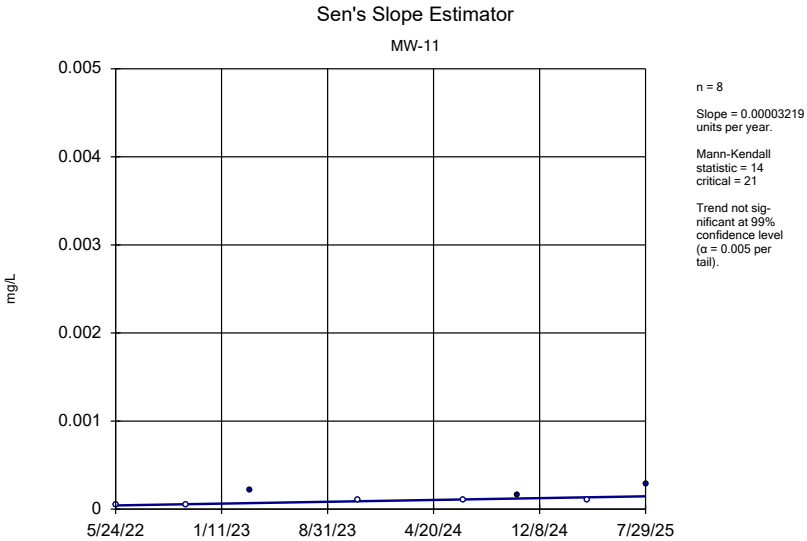
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



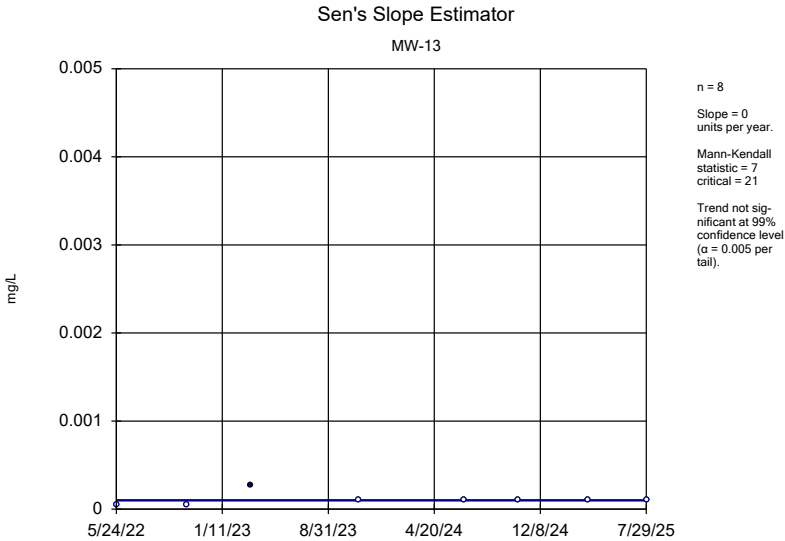
Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



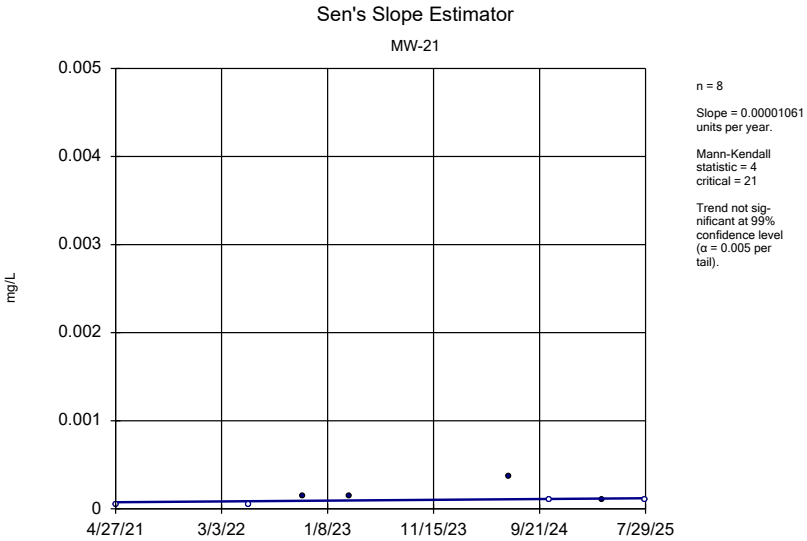
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



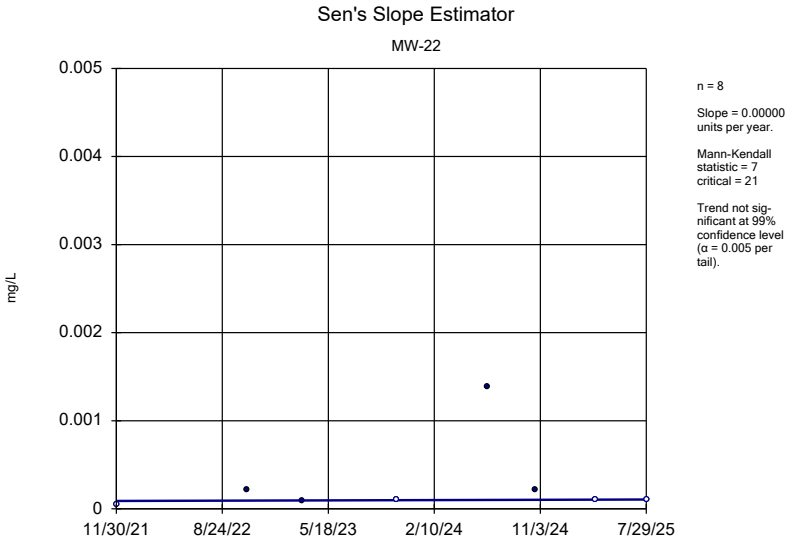
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



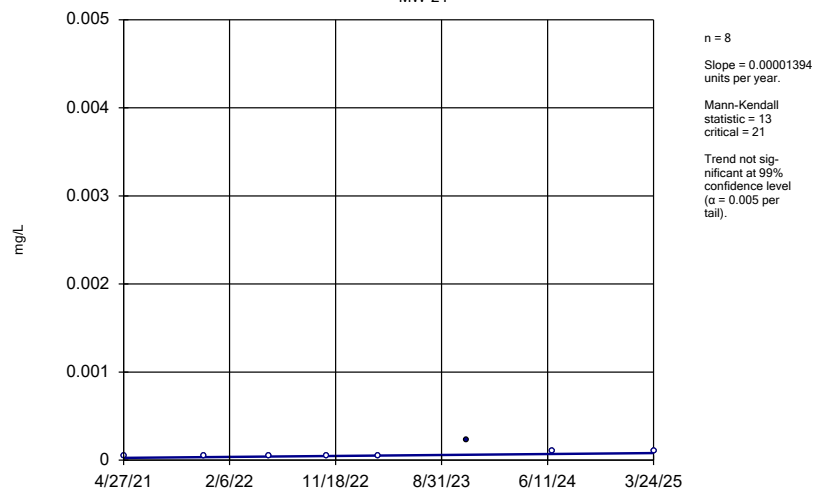
Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

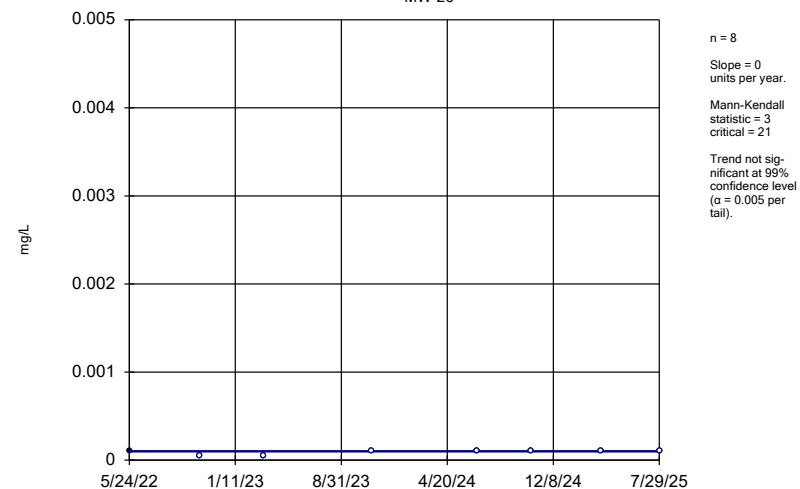
MW-24



Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

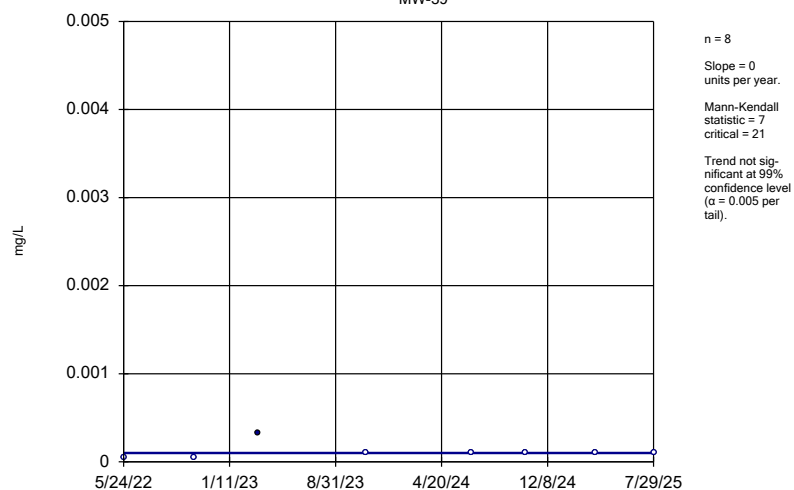
MW-26



Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

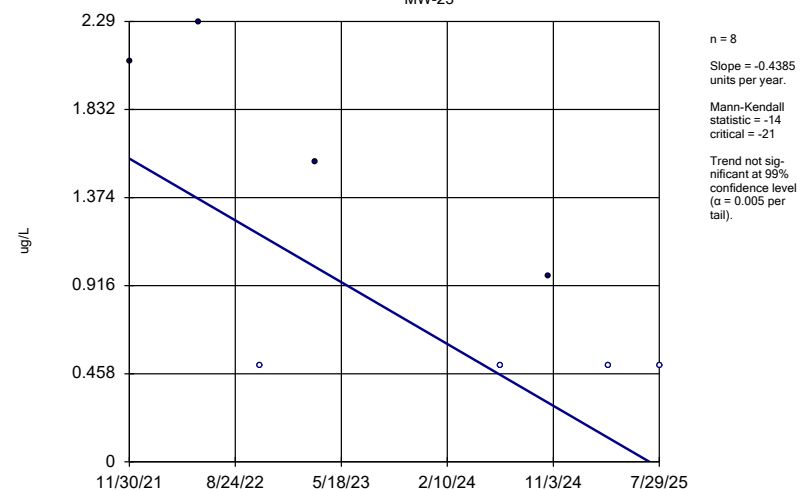
MW-39



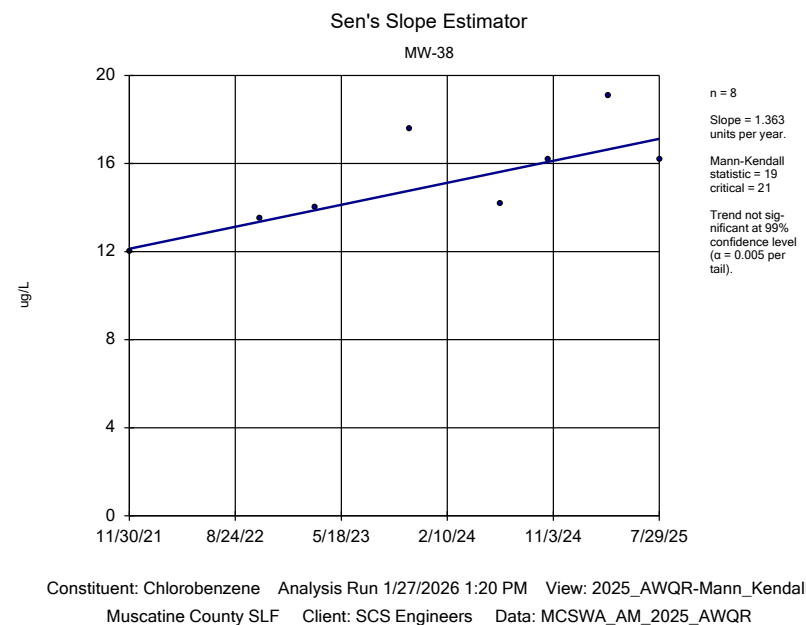
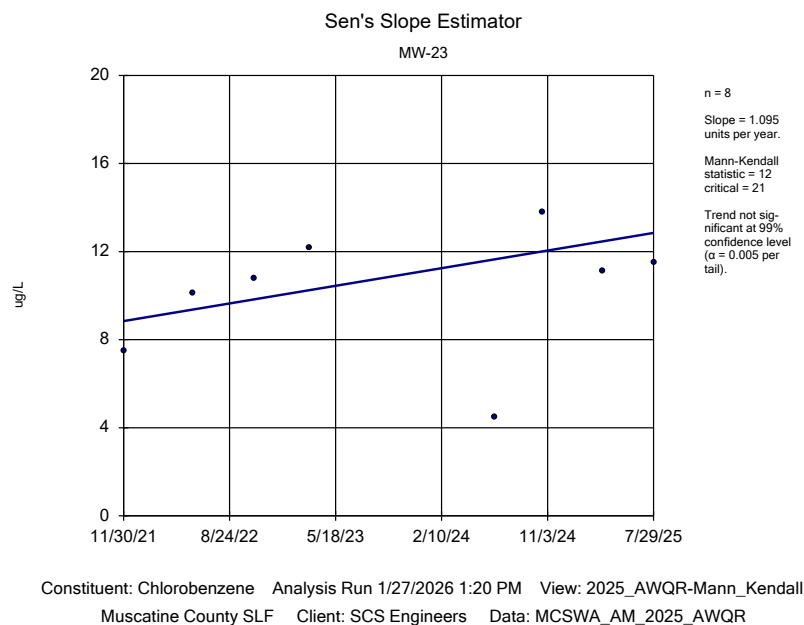
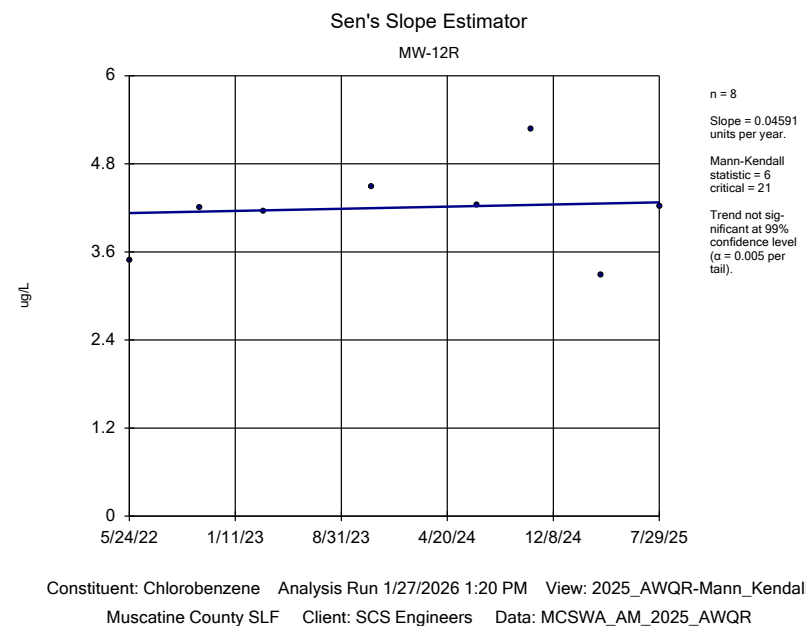
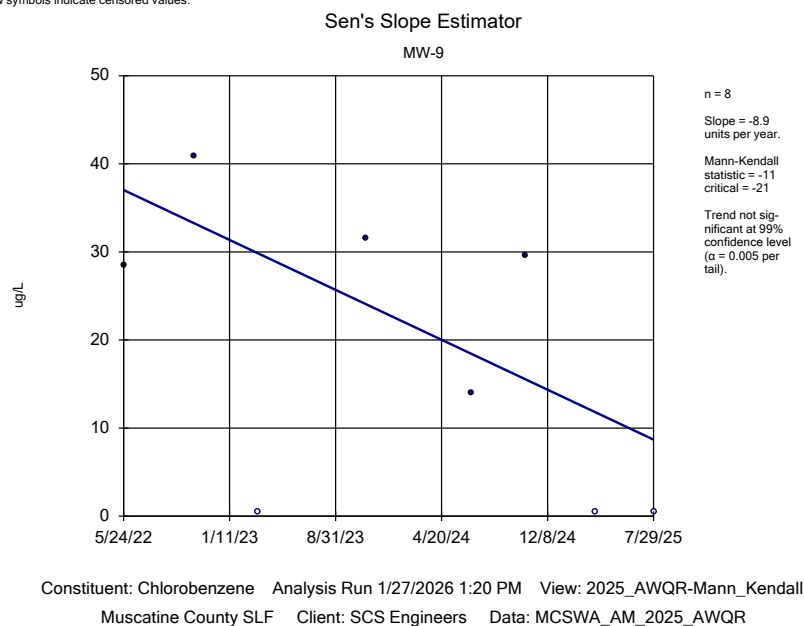
Constituent: Cadmium Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

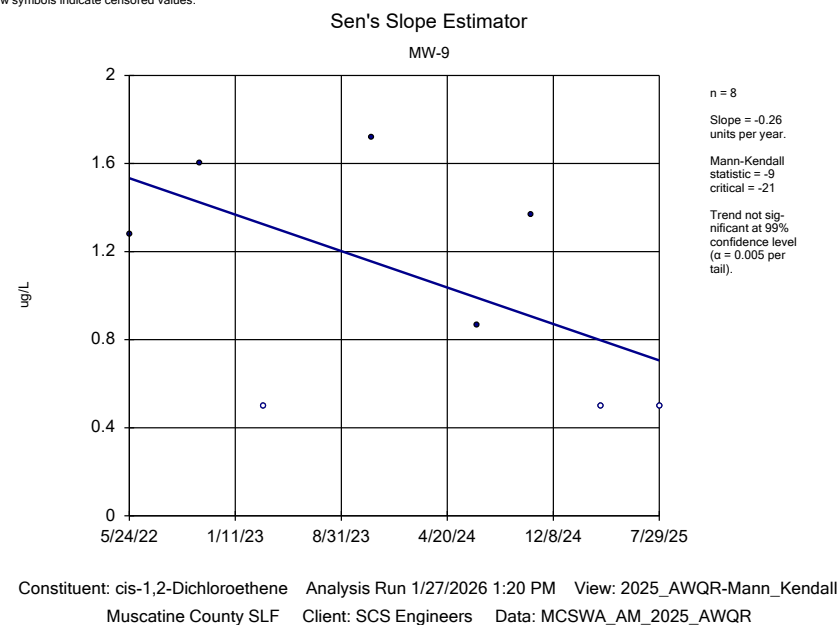
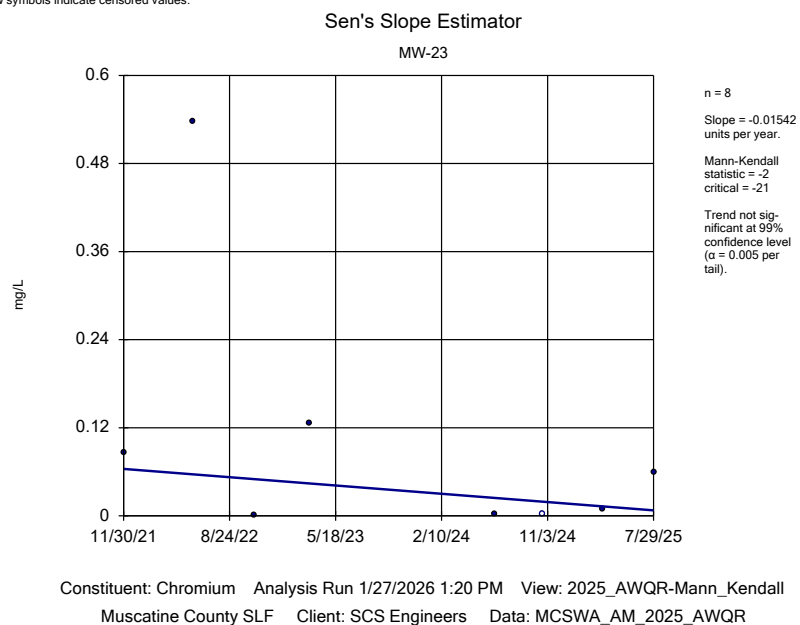
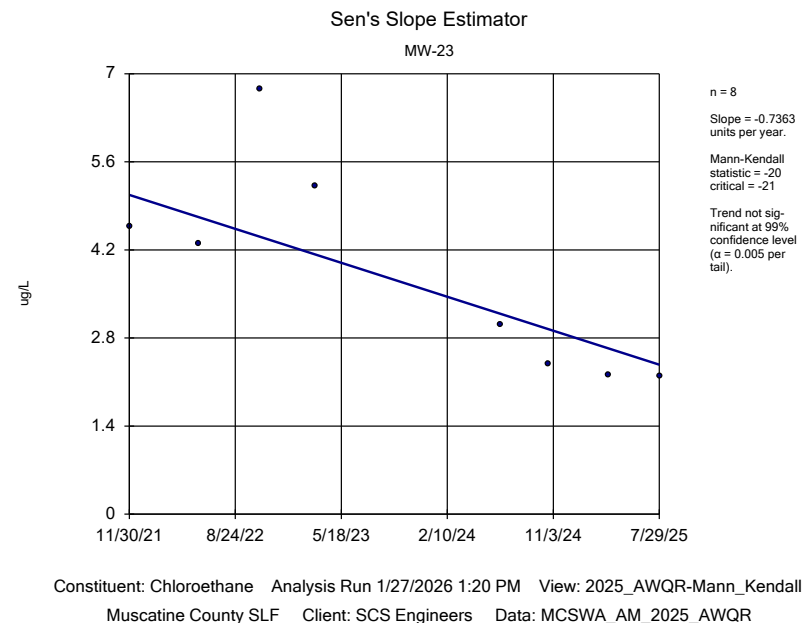
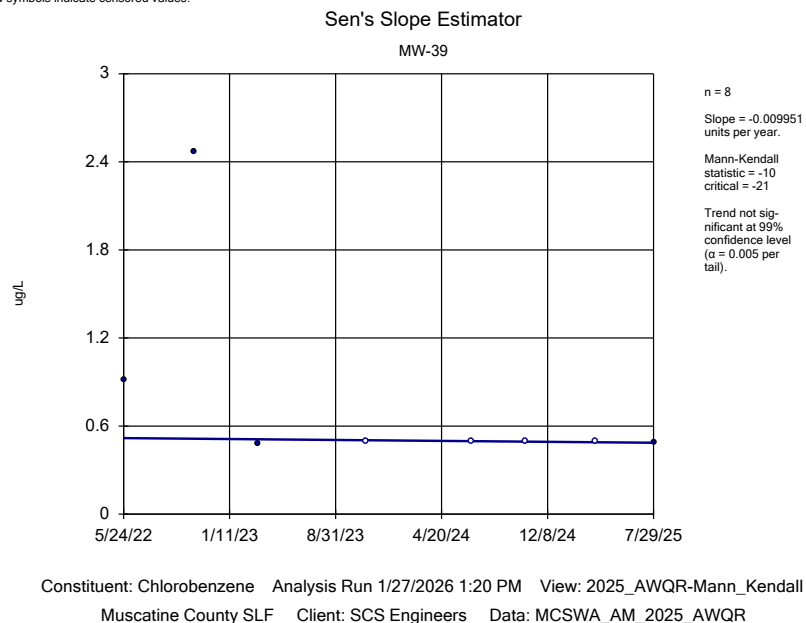
Sen's Slope Estimator

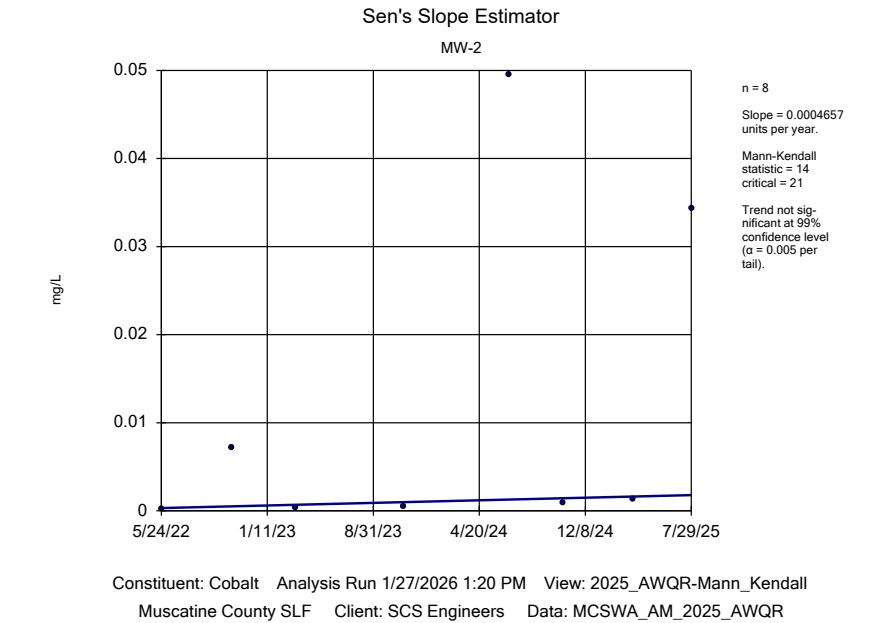
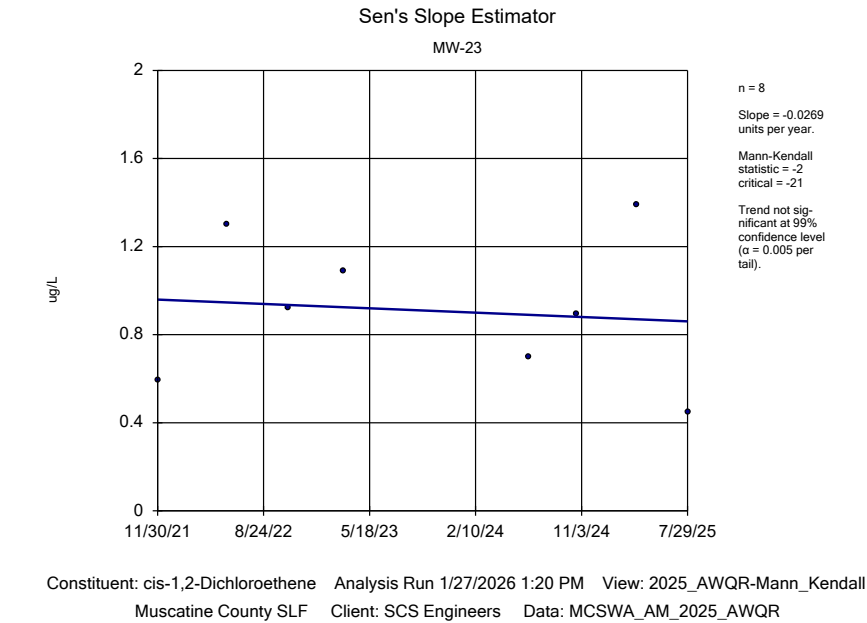
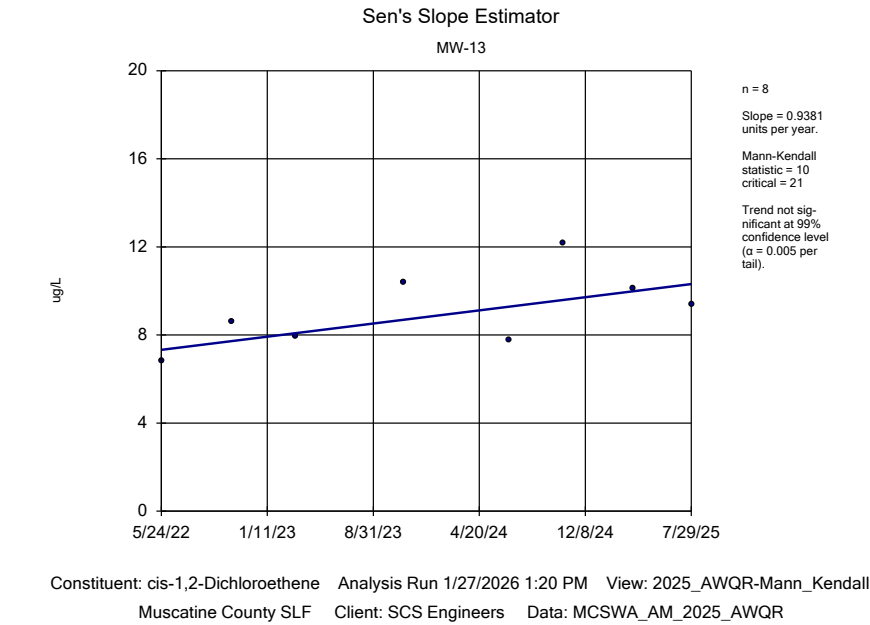
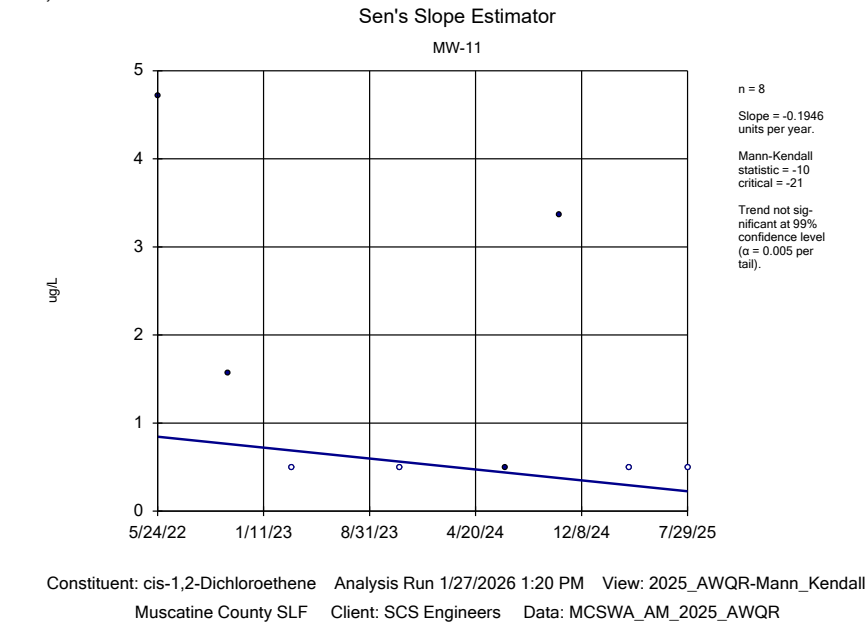
MW-23



Constituent: Carbon Disulfide Analysis Run 1/27/2026 1:20 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

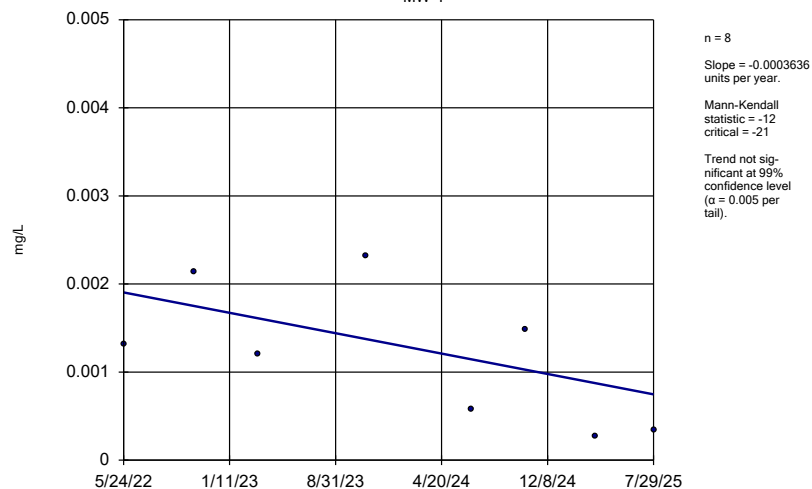






Sen's Slope Estimator

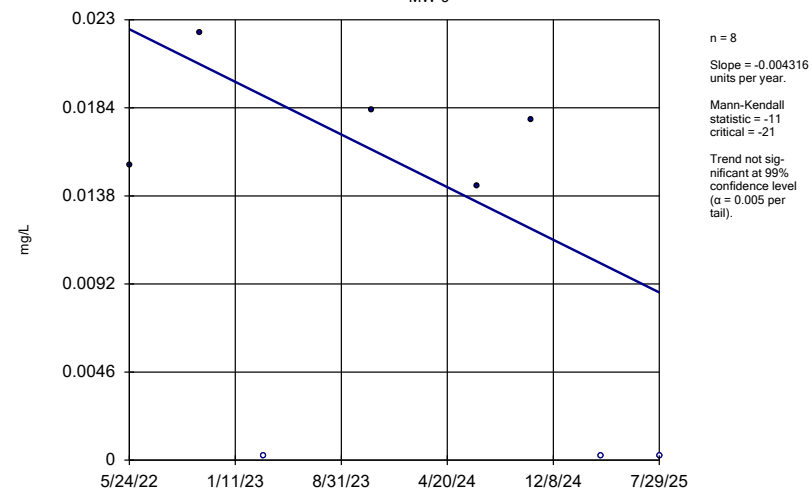
MW-4



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

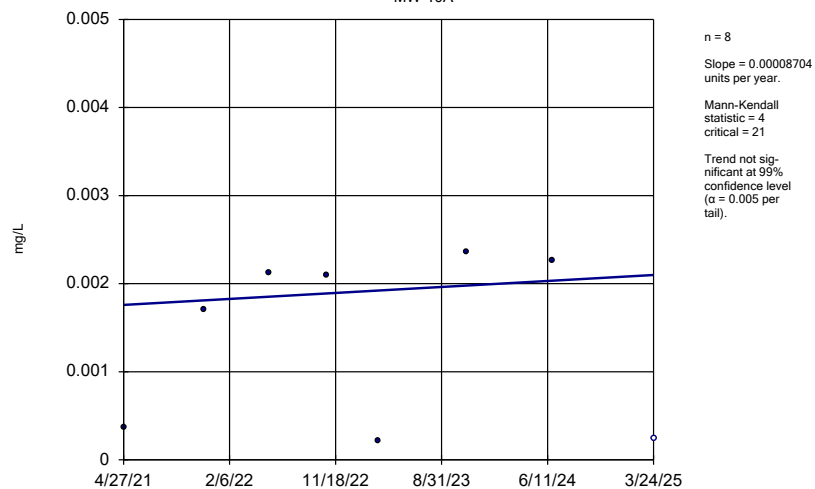
MW-9



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

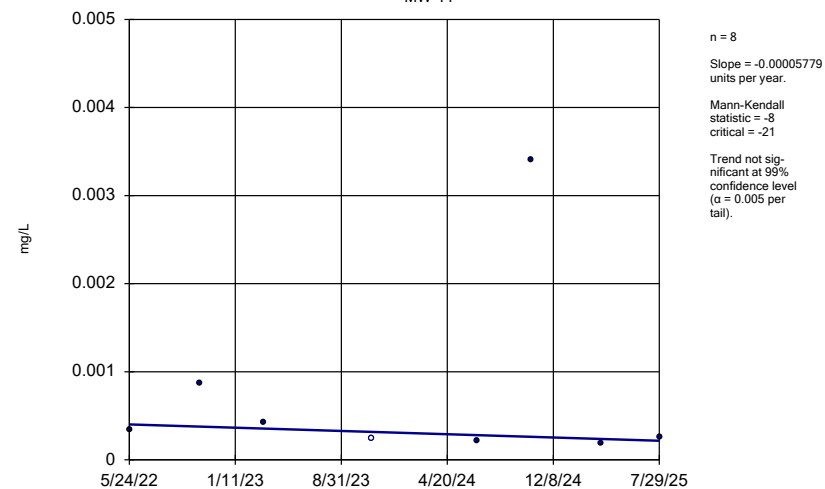
MW-10A



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

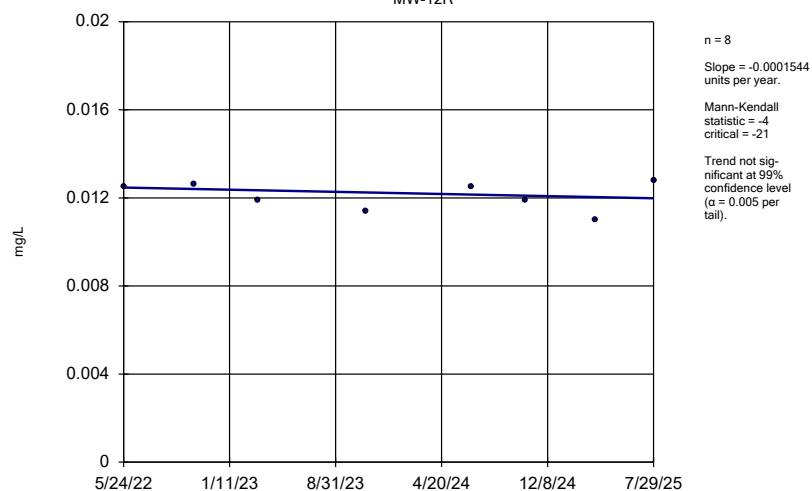
MW-11



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

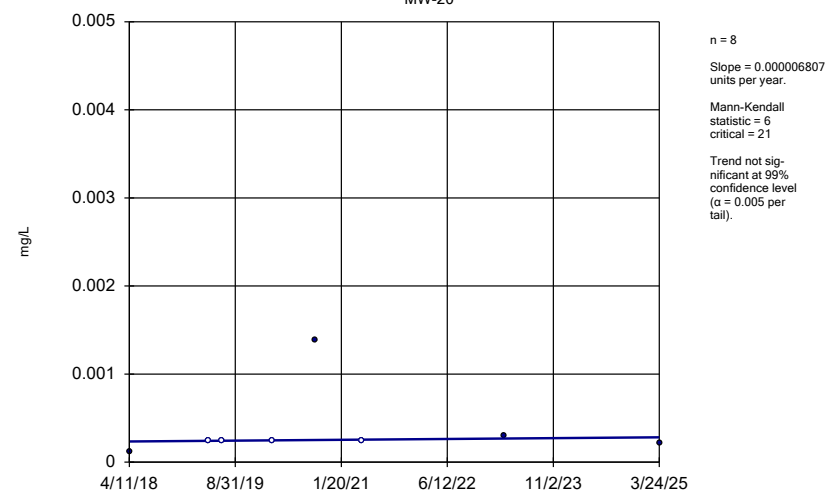
MW-12R



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

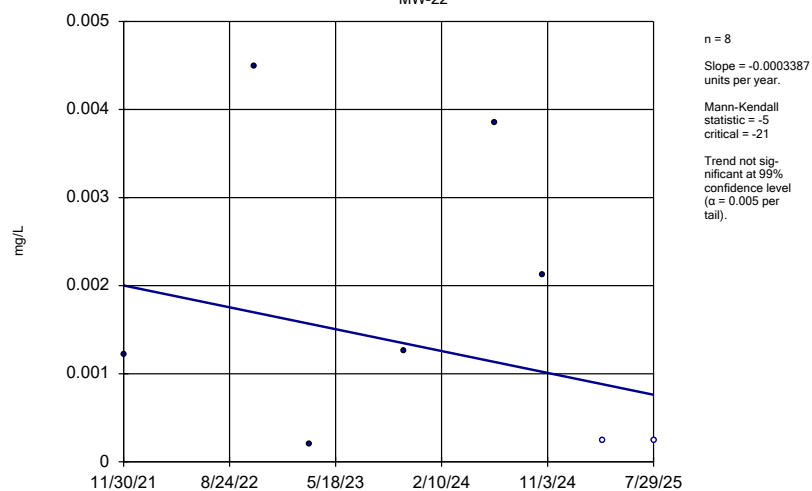
MW-20



Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

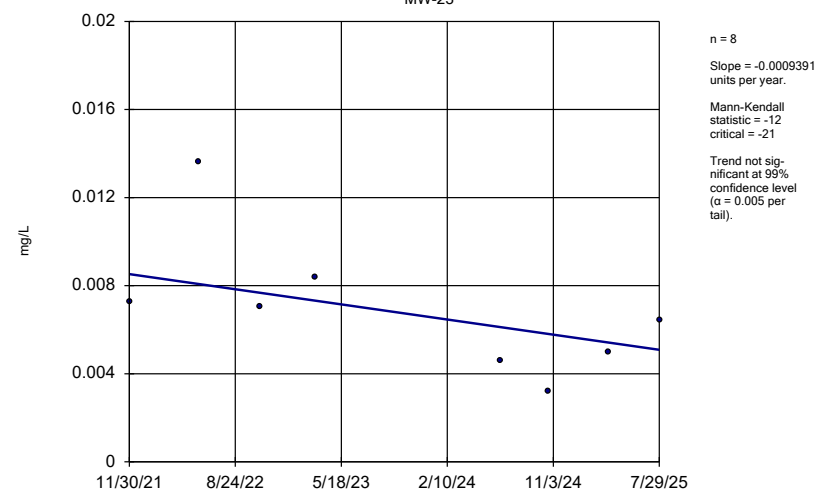
MW-22



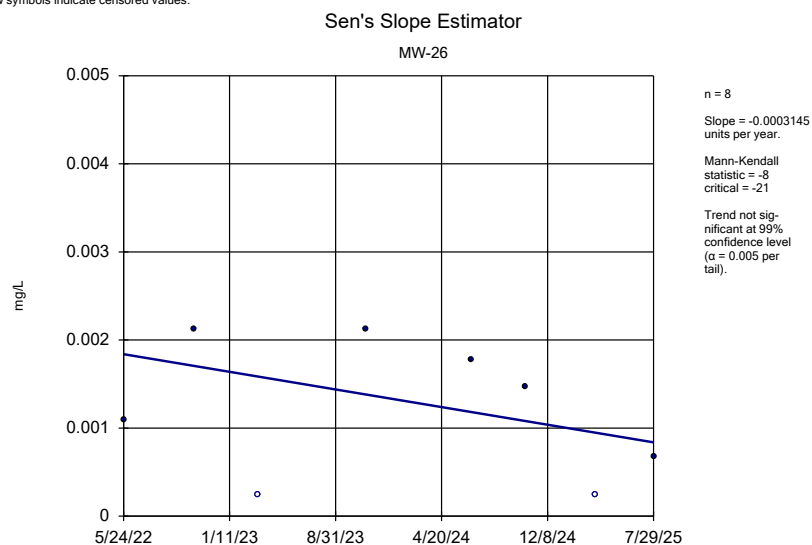
Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

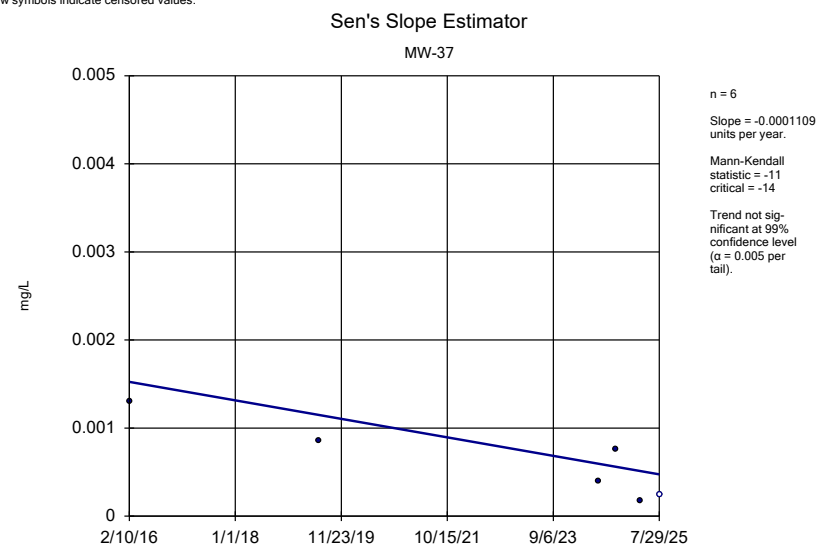
MW-23



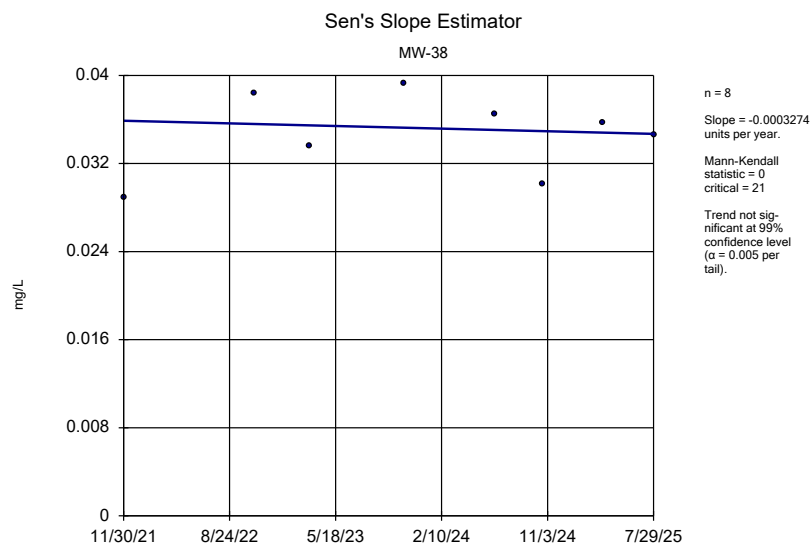
Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



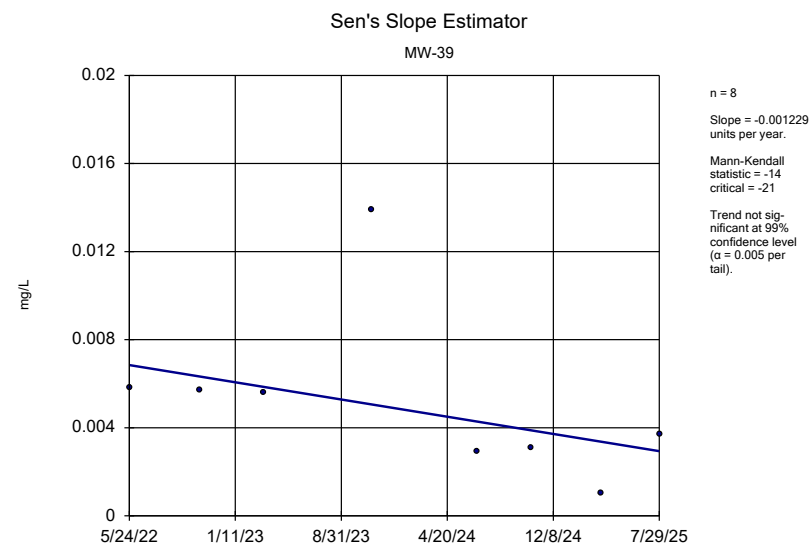
Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



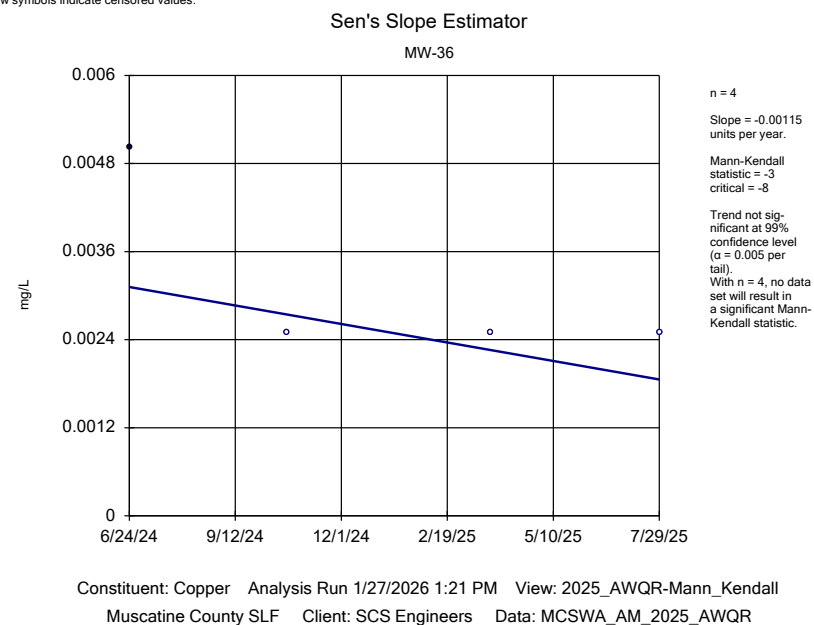
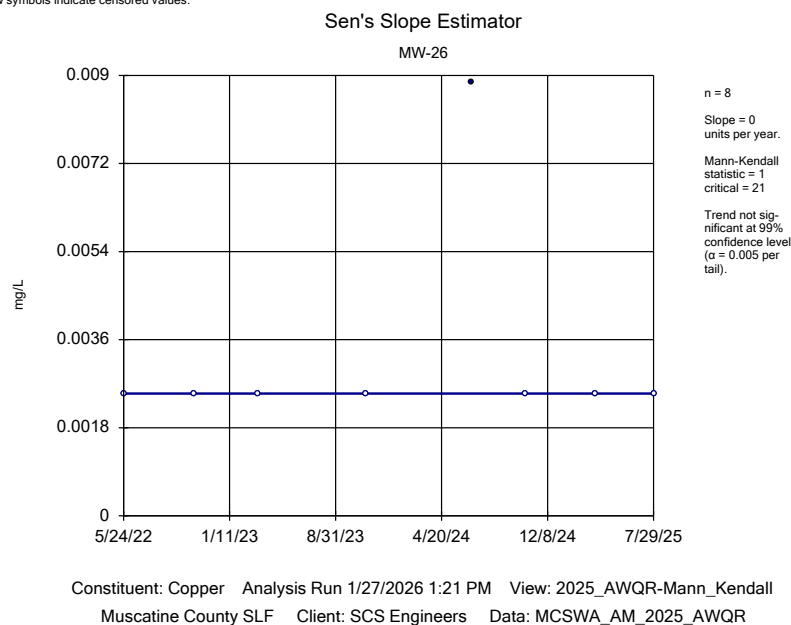
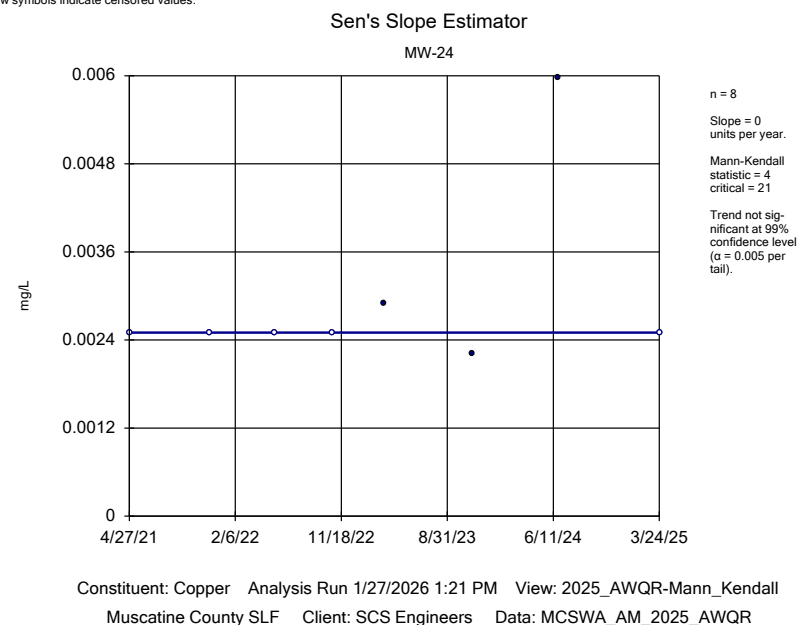
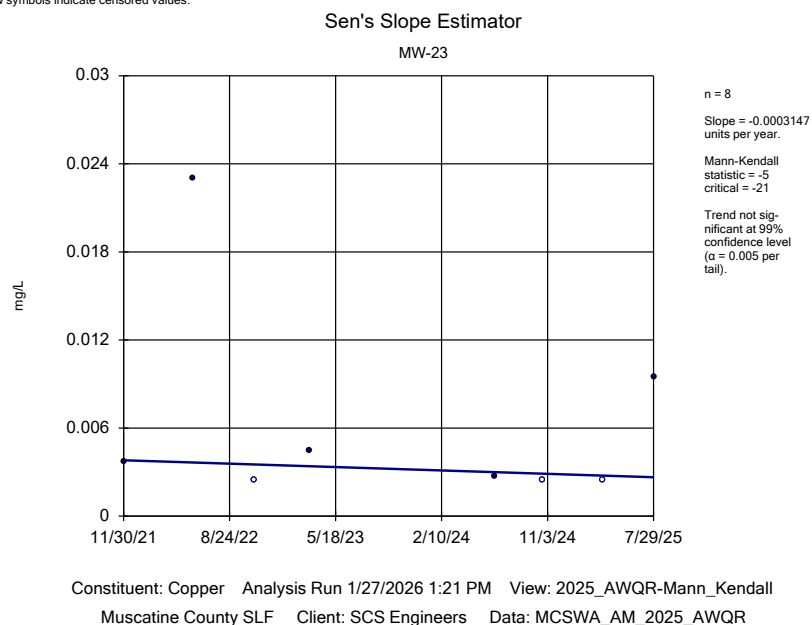
Constituent: Cobalt Analysis Run 1/27/2026 1:21 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

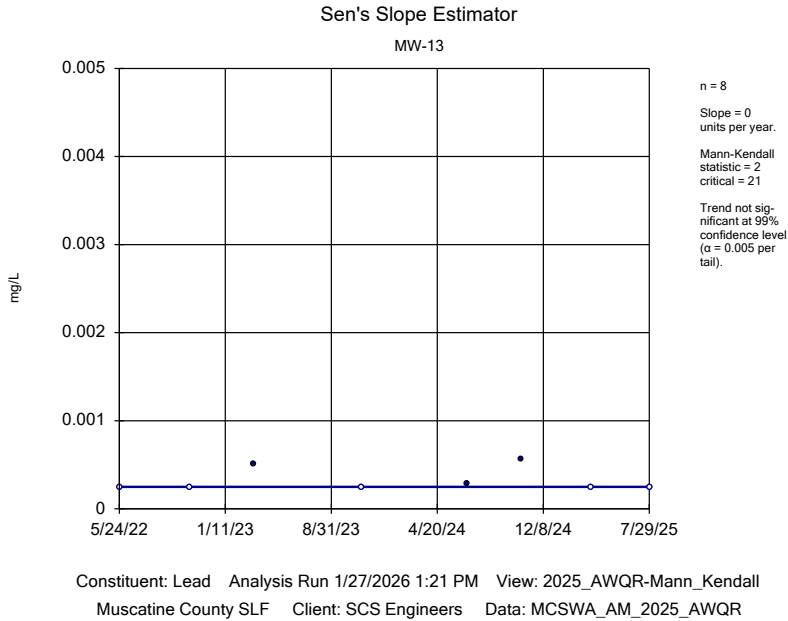
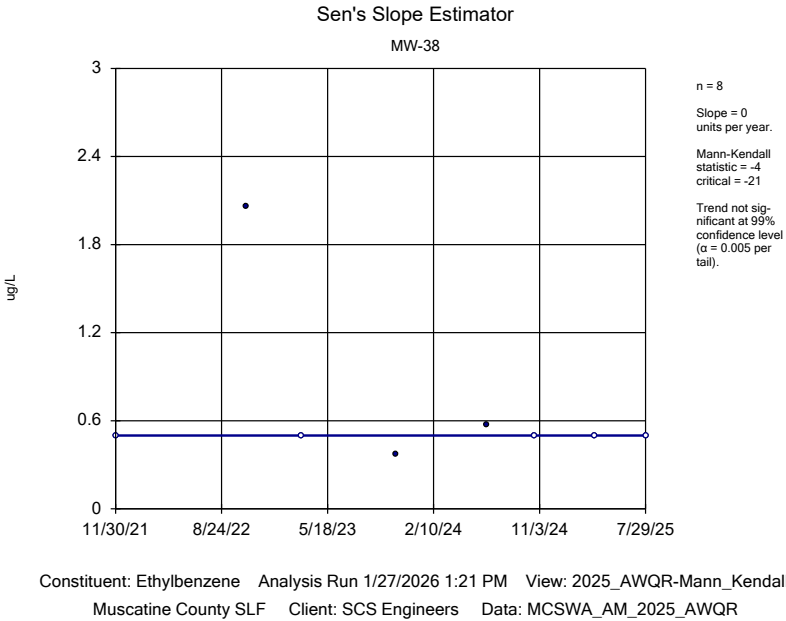
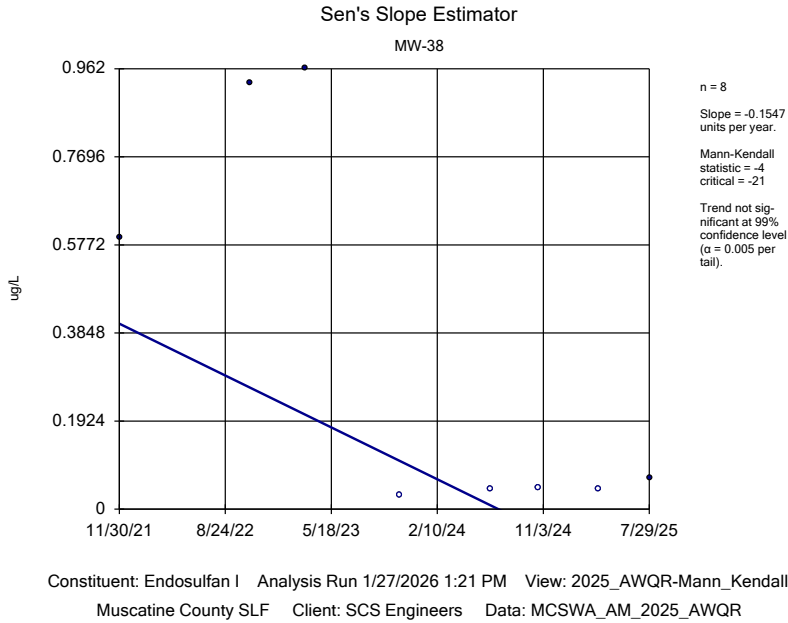
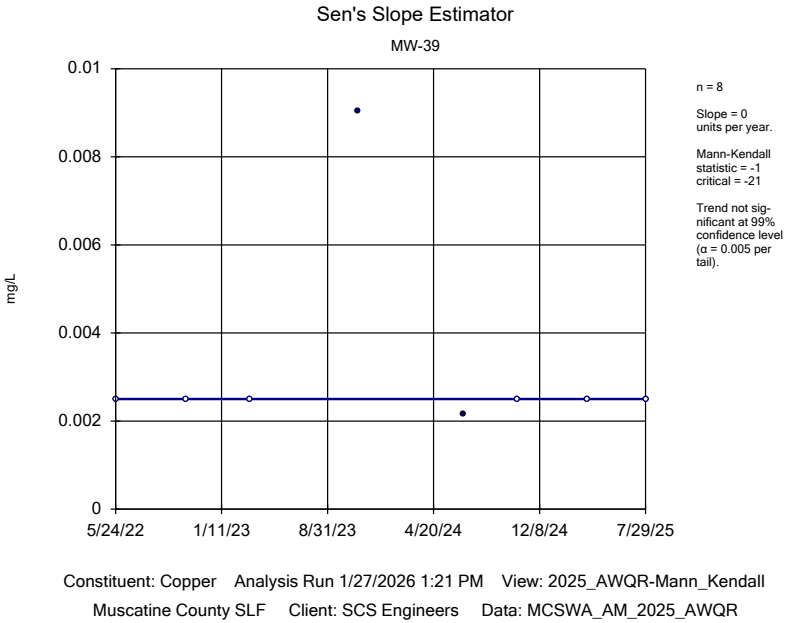


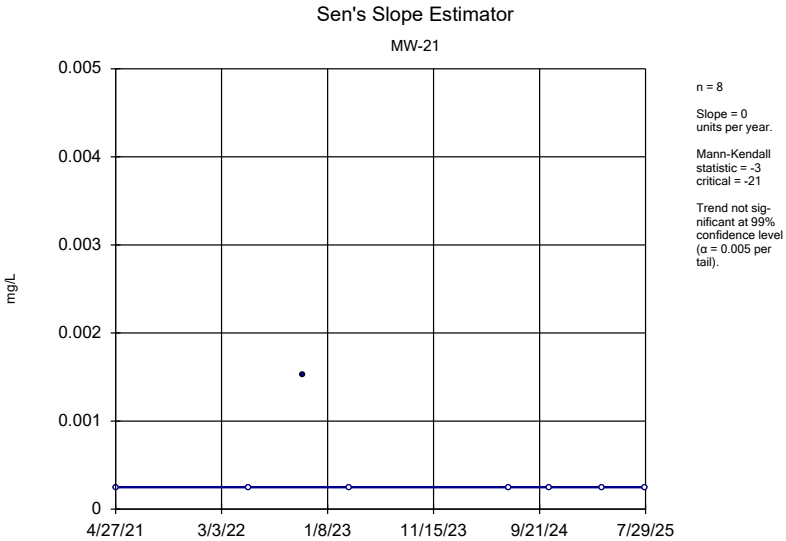
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



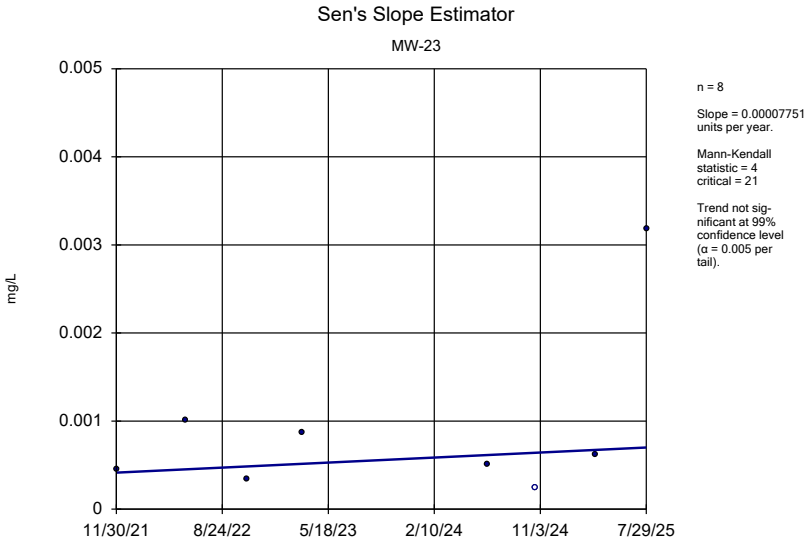
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



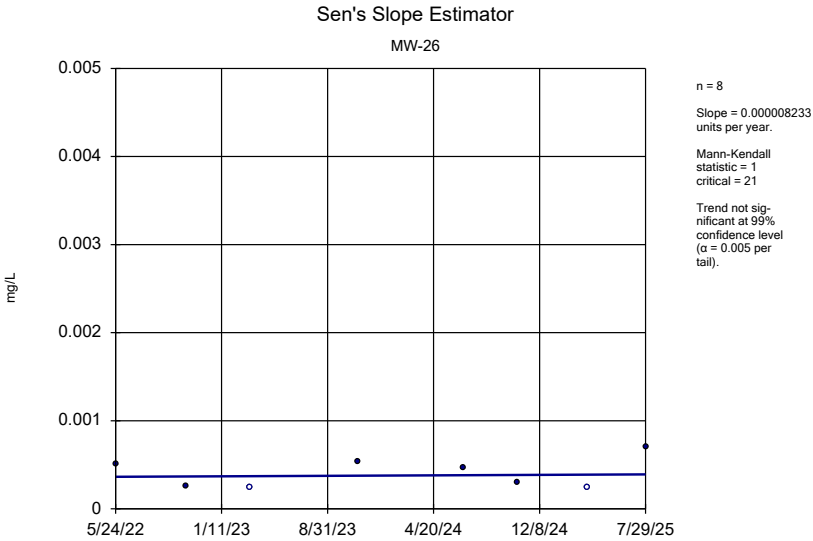




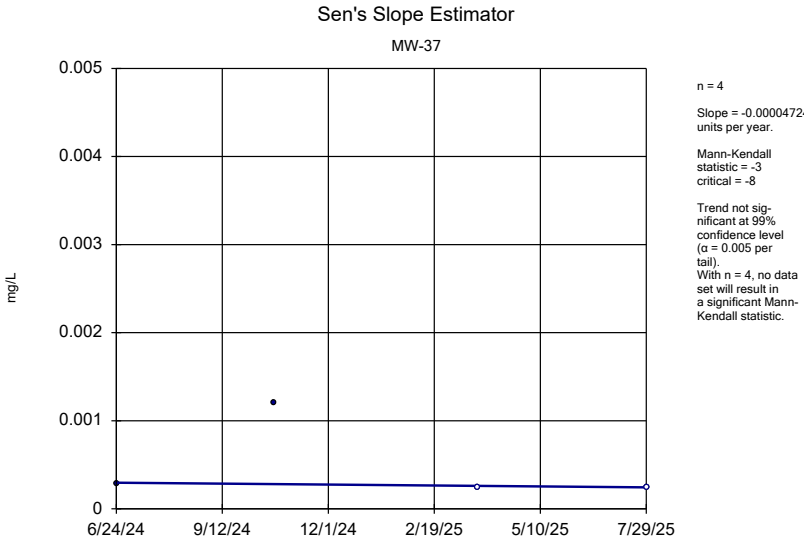
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



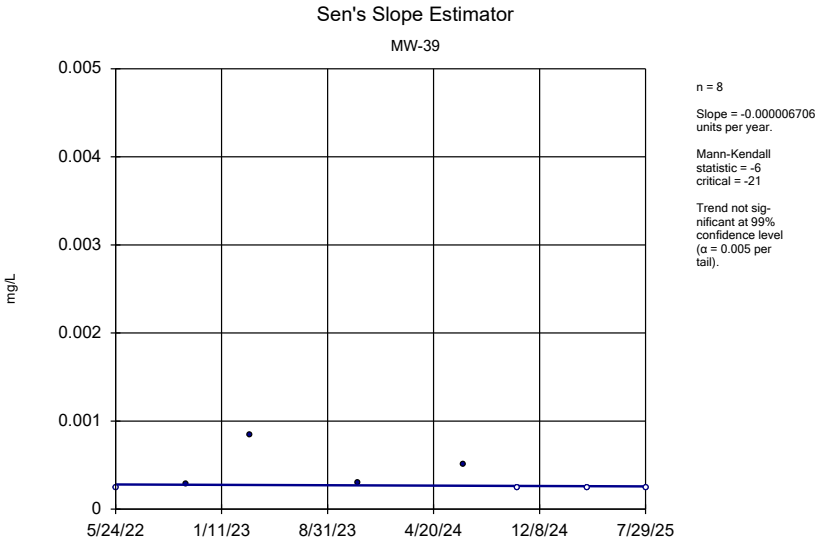
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



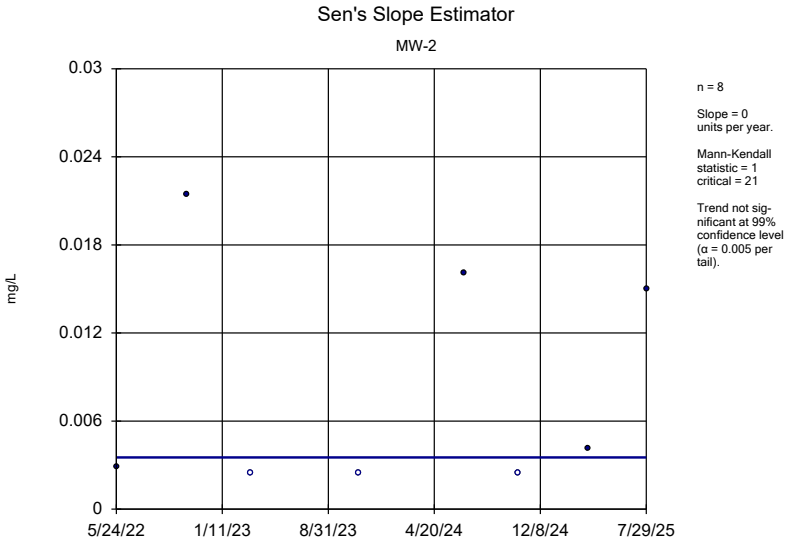
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



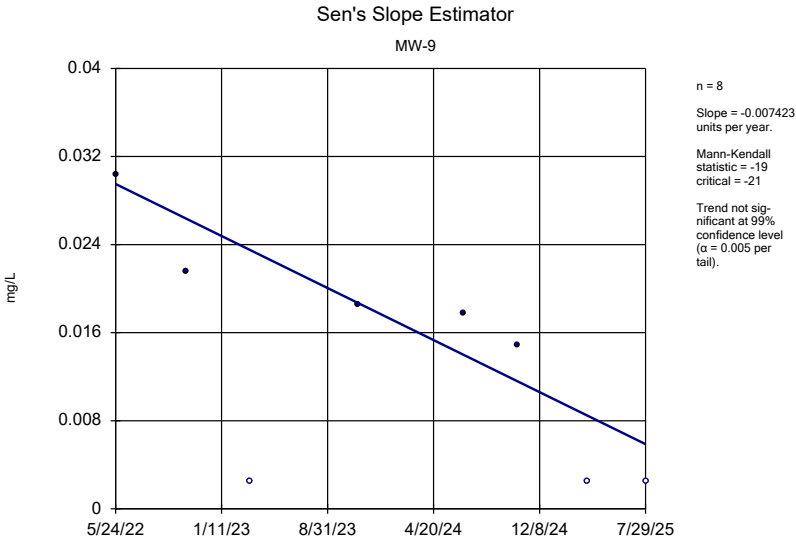
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



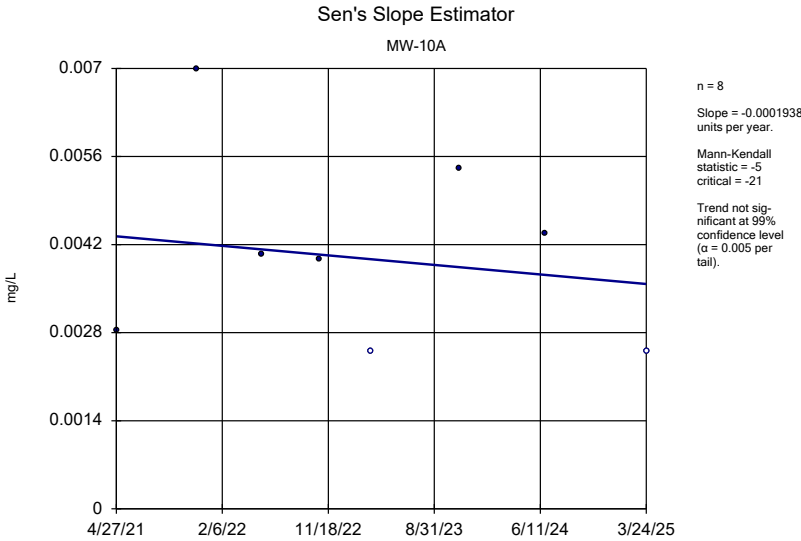
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



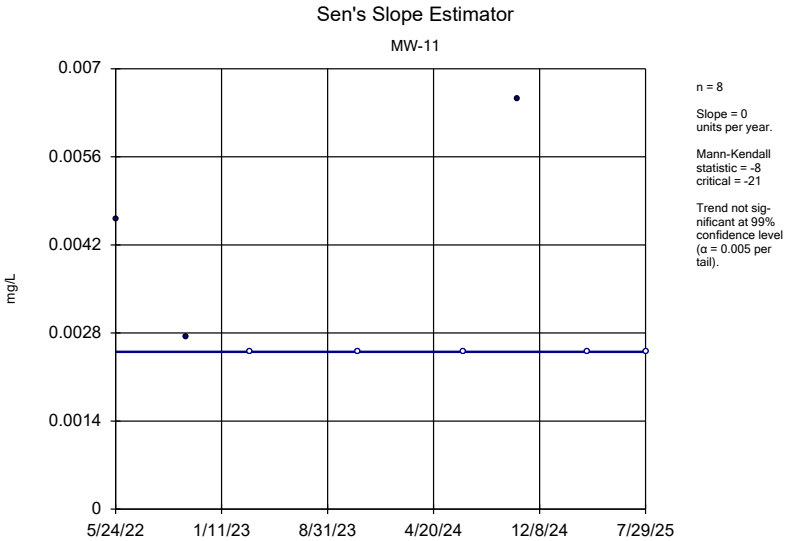
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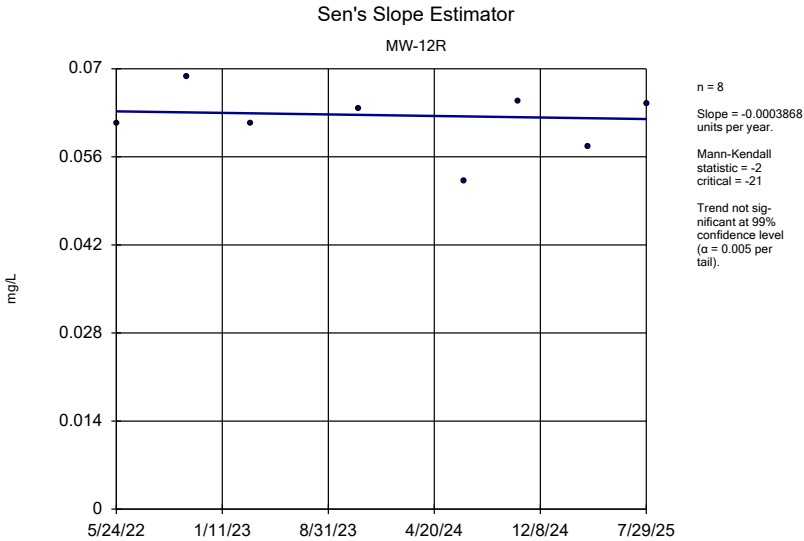
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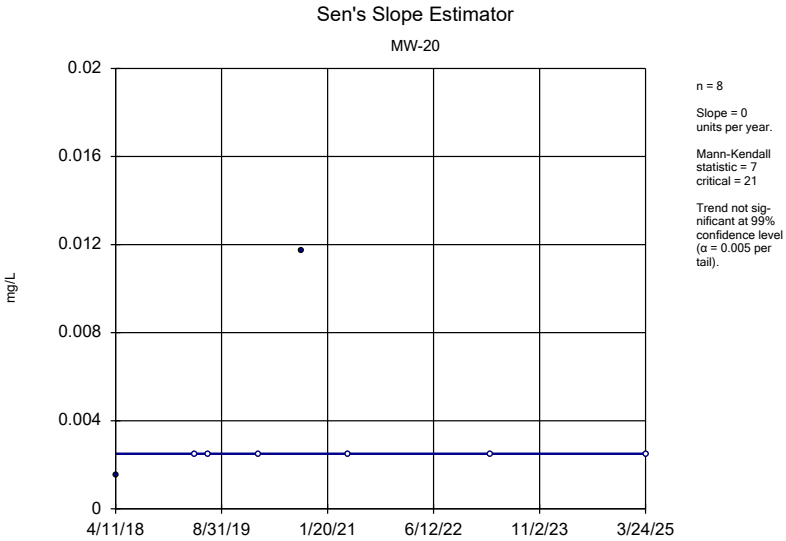
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



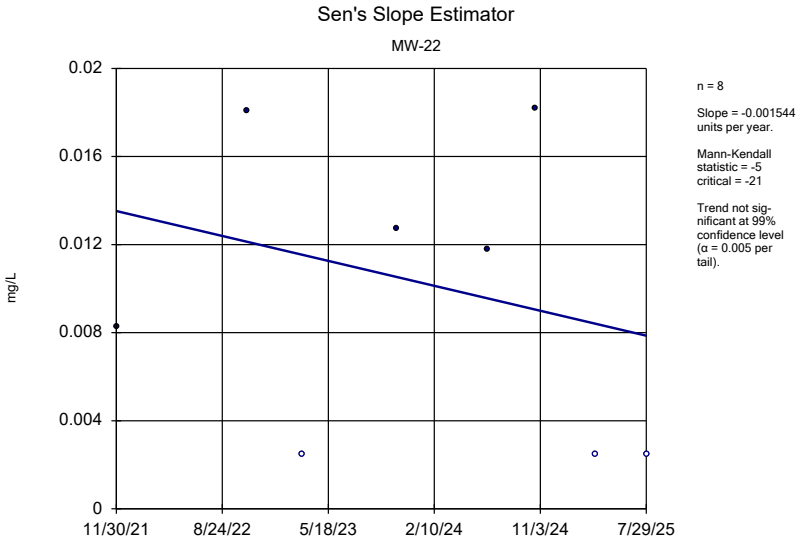
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Constituent: Nickel Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



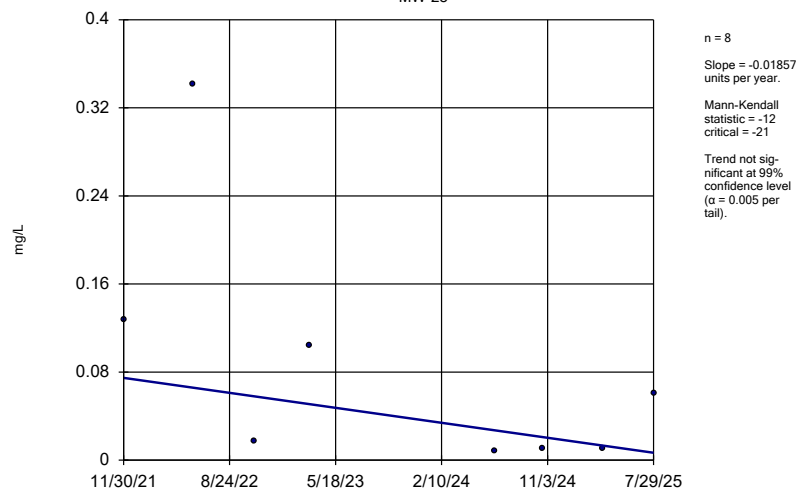
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Constituent: Nickel Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

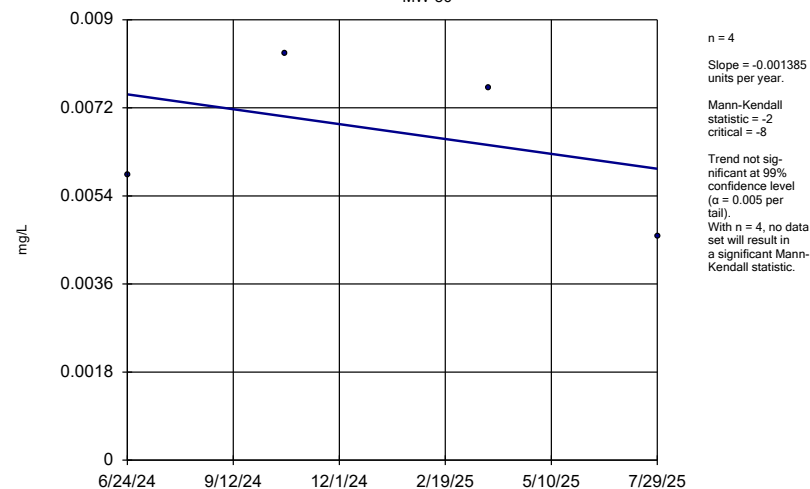
MW-23



Constituent: Nickel Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
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Sen's Slope Estimator

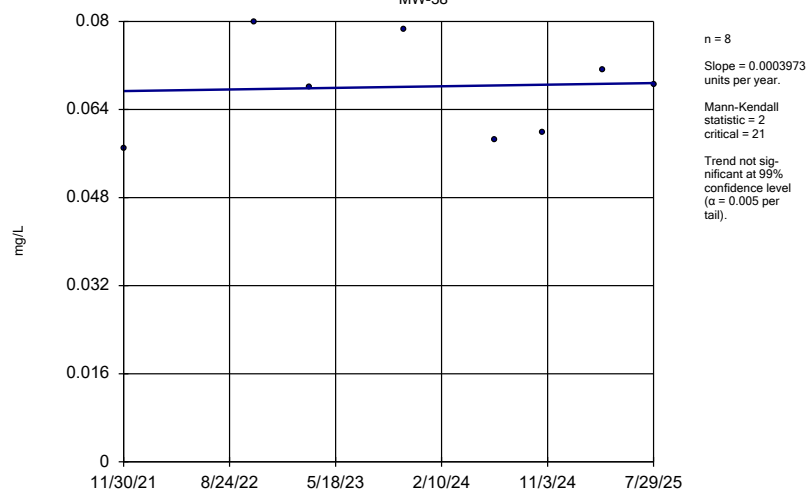
MW-36



Constituent: Nickel Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

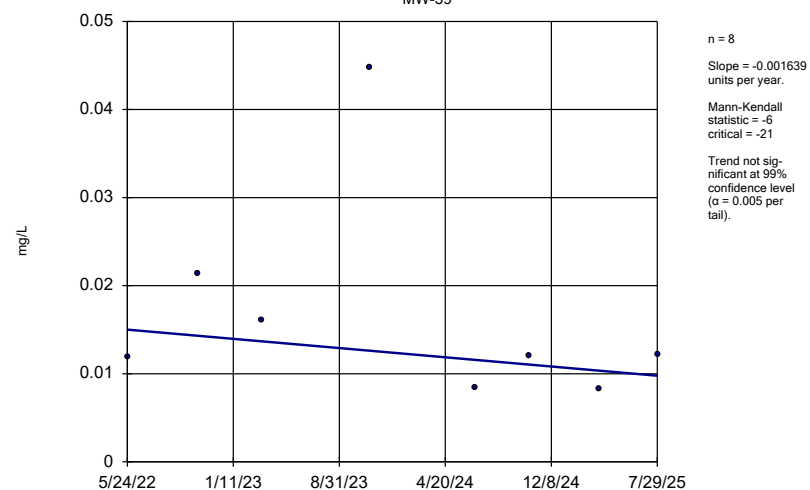
MW-38



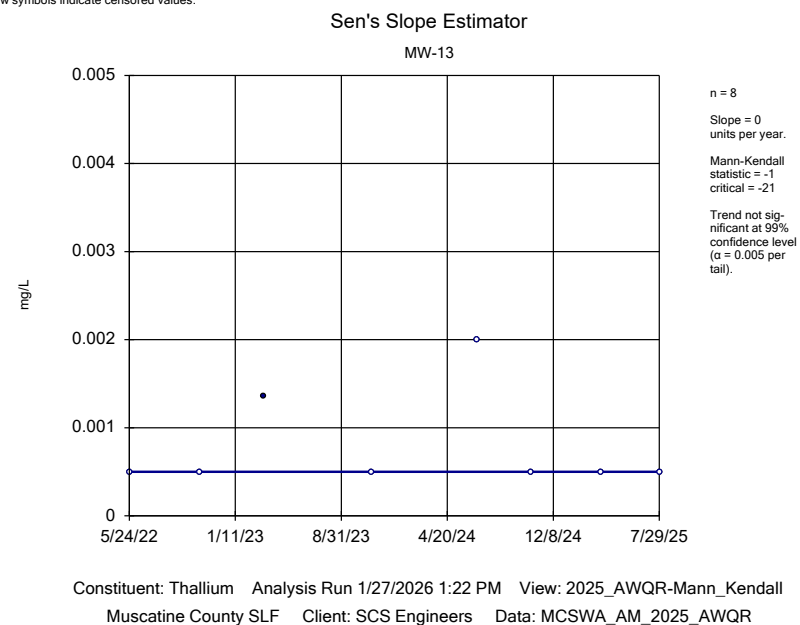
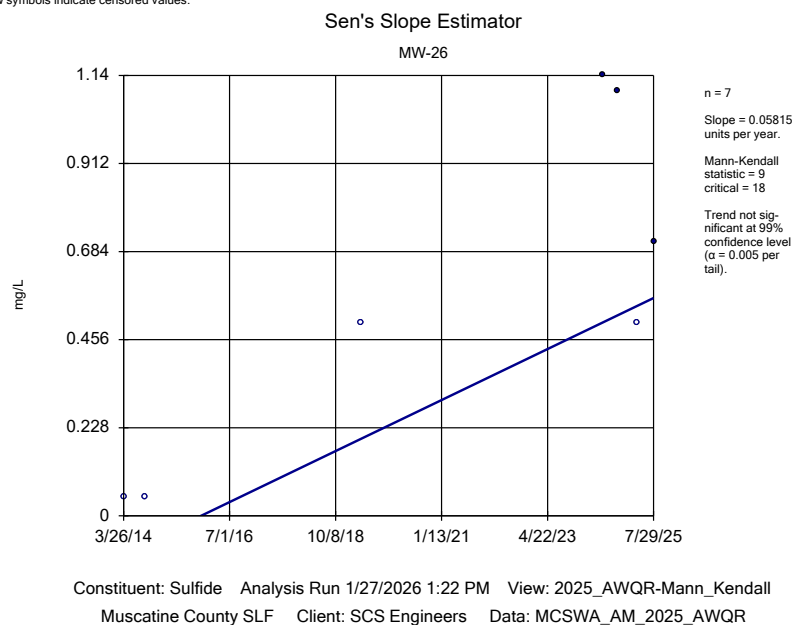
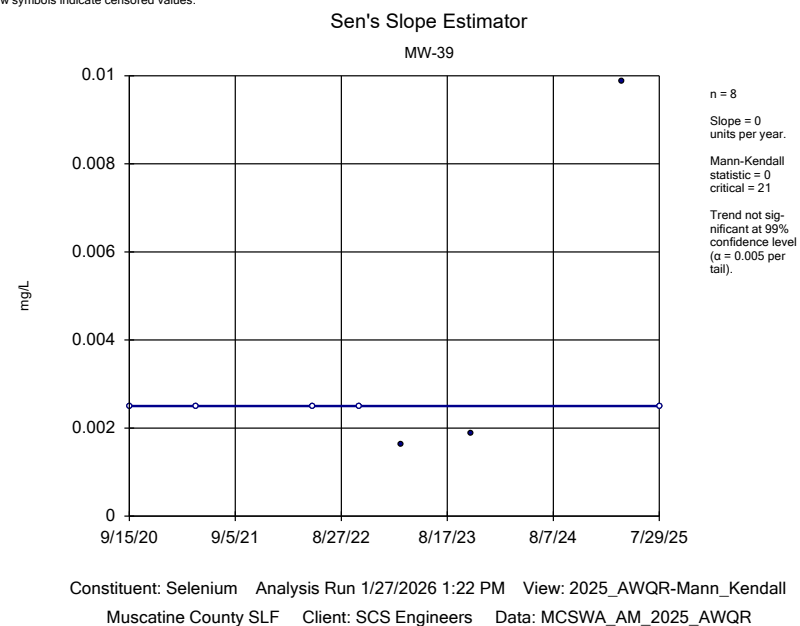
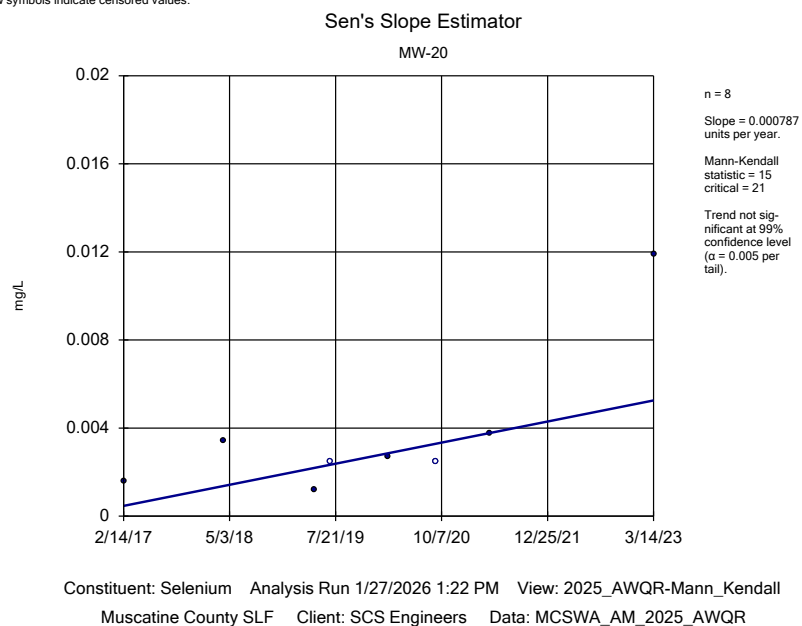
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Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

MW-39

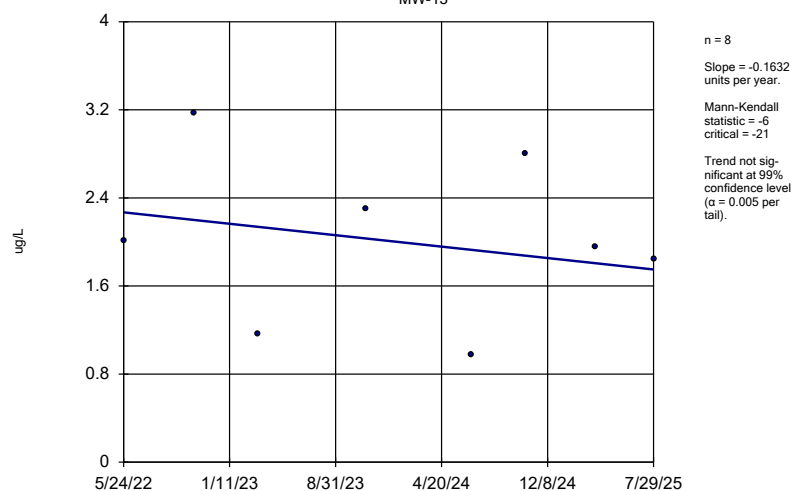


Constituent: Nickel Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR



Sen's Slope Estimator

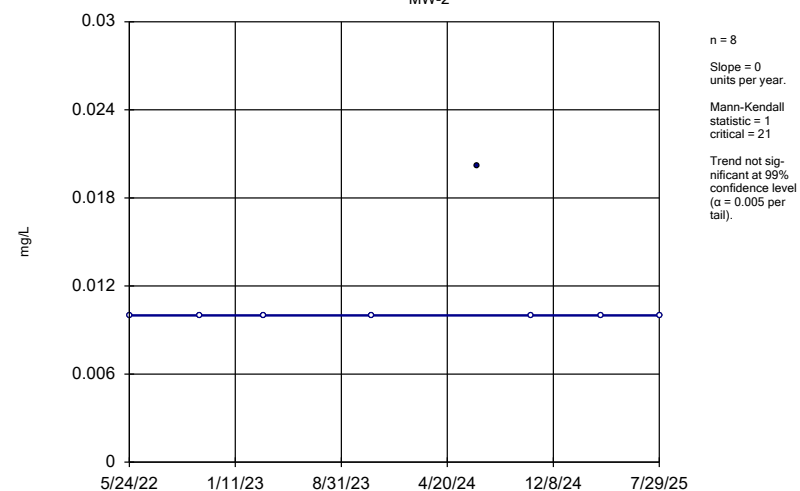
MW-13



Constituent: Vinyl Chloride Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

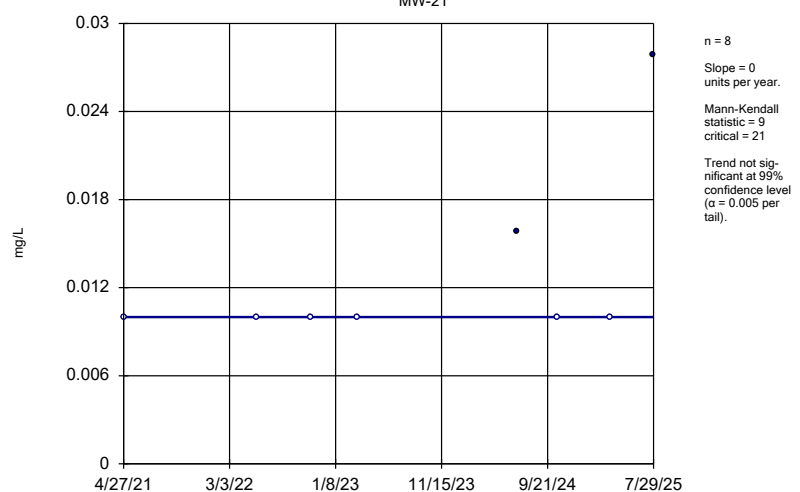
MW-2



Constituent: Zinc Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

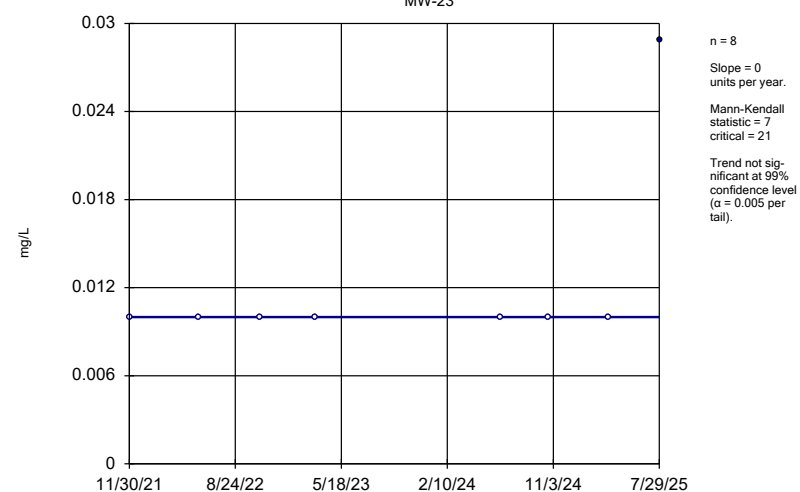
MW-21



Constituent: Zinc Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Sen's Slope Estimator

MW-23



Constituent: Zinc Analysis Run 1/27/2026 1:22 PM View: 2025_AWQR-Mann_Kendall
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR

Confidence Interval Summary Table and Graphs

Confidence Interval

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN] Printed 1/27/2026, 2:04 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Acetone (ug/L)	MW-37	22.4	0	6300	No	4	50	No	0.01	Param.
Arsenic (mg/L)	MW-9	0.0171	0.000895	0.01	No	8	0	No	0.004	NP (normality)
Arsenic (mg/L)	MW-10A	0.004976	0.0002975	0.01	No	8	25	No	0.01	Param.
Arsenic (mg/L)	MW-21	0.00596	0.00075	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-22	0.00301	0.000587	0.01	No	8	37.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-26	0.00314	0.000791	0.01	No	8	25	No	0.004	NP (normality)
Arsenic (mg/L)	MW-37	0.006012	0	0.01	No	4	0	No	0.01	Param.
Barium (mg/L)	MW-2	0.3964	0.2416	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-9	1.125	0.1055	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10A	0.4359	0.1901	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-20	0.06106	0.04027	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-21	0.567	0.0577	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-22	0.861	0.1685	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-24	0.261	0.2238	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-25	0.3338	0.1952	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-26	0.1356	0.06924	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-36	0.3897	0.156	2	No	6	0	No	0.01	Param.
Barium (mg/L)	MW-37	0.3207	0.00009159	2	No	4	0	No	0.01	Param.
Benzene (ug/L)	MW-9	0.9139	0.3356	5	No	8	37.5	No	0.01	Param.
Benzene (ug/L)	MW-22	0.7213	0.4492	5	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-2	0.0001416	0.00006895	0.005	No	8	62.5	No	0.01	Param.
Cadmium (mg/L)	MW-9	0.0003929	0.00004388	0.005	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-21	0.000373	0.00005	0.005	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-22	0.00139	0.00005	0.005	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-24	0.000235	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-26	0.000105	0.00005	0.005	No	8	87.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-9	34.51	2.395	100	No	8	37.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-9	1.536	0.8211	70	No	8	37.5	No	0.01	Param.
Cobalt (mg/L)	MW-2	0.0495	0.000224	0.00797	No	8	0	No	0.004	NP (normality)
Cobalt (mg/L)	MW-9	0.02029	0.002114	0.00797	No	8	37.5	No	0.01	Param.
Cobalt (mg/L)	MW-10A	0.002451	0.0003972	0.00797	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-20	0.00138	0.000112	0.00797	No	8	50	No	0.004	NP (normality)
Cobalt (mg/L)	MW-22	0.003358	0.00002682	0.00797	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-26	0.001767	0.0005172	0.00797	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-37	0.001165	0.00009019	0.00797	No	6	16.67	No	0.01	Param.
Copper (mg/L)	MW-24	0.00597	0.00221	1.3	No	8	62.5	No	0.004	NP (normality)
Copper (mg/L)	MW-26	0.00886	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-36	0.00502	0.0025	1.3	No	4	75	No	0.0625	NP (normality)
Lead (mg/L)	MW-21	0.00153	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-26	0.0005888	0.0002734	0.015	No	8	25	No	0.01	Param.
Lead (mg/L)	MW-37	0.0012	0.00025	0.015	No	4	50	No	0.0625	NP (normality)
Nickel (mg/L)	MW-2	0.01618	0.001345	0.1	No	8	37.5	No	0.01	Param.
Nickel (mg/L)	MW-9	0.02396	0.005592	0.1	No	8	37.5	No	0.01	Param.
Nickel (mg/L)	MW-10A	0.005701	0.003108	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-20	0.0117	0.00153	0.1	No	8	75	No	0.004	NP (normality)
Nickel (mg/L)	MW-22	0.01607	0.004966	0.1	No	8	37.5	No	0.01	Param.
Nickel (mg/L)	MW-36	0.01043	0.002732	0.1	No	4	0	No	0.01	Param.
Selenium (mg/L)	MW-20	0.0119	0.0012	0.05	No	8	25	No	0.004	NP (normality)
Sulfide (mg/L)	MW-26	1.062	0.01175	1	No	7	57.14	No	0.01	Param.
Zinc (mg/L)	MW-2	0.0202	0.01	2	No	8	87.5	No	0.004	NP (NDs)

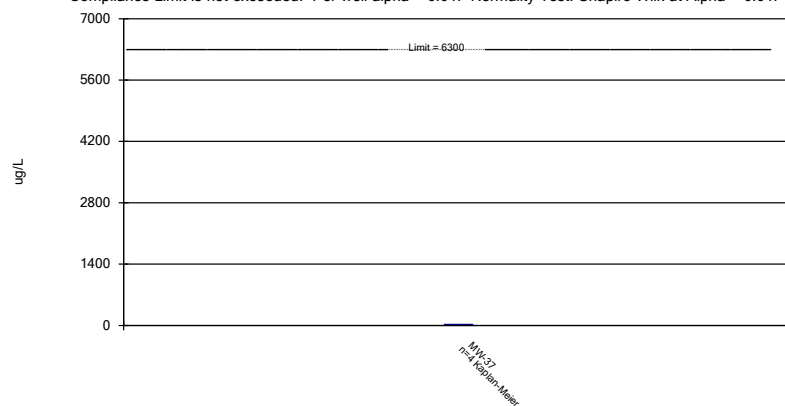
Confidence Interval

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN] Printed 1/27/2026, 2:04 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	MW-21	0.02785	0.01	2	No	8	75	No	0.004	NP (normality)

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

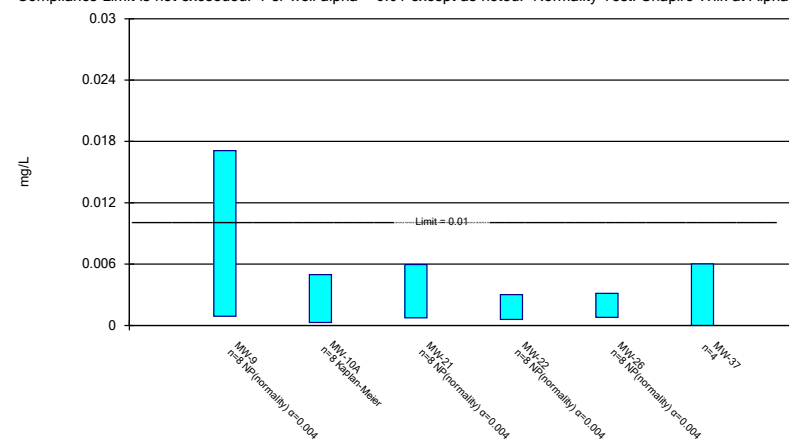


Constituent: Acetone Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

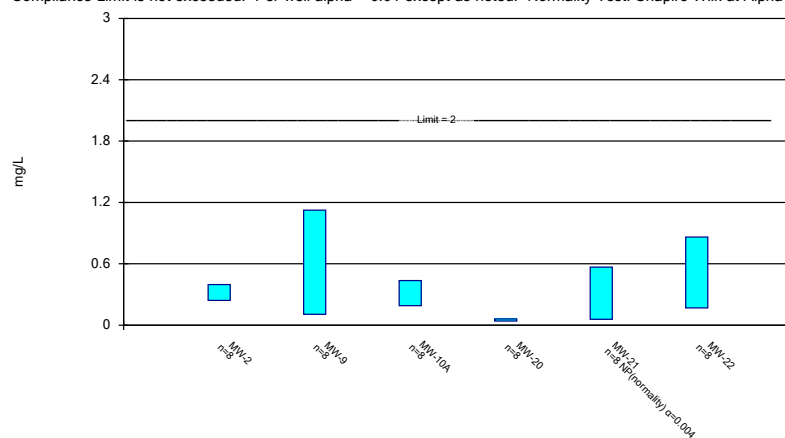


Constituent: Arsenic Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

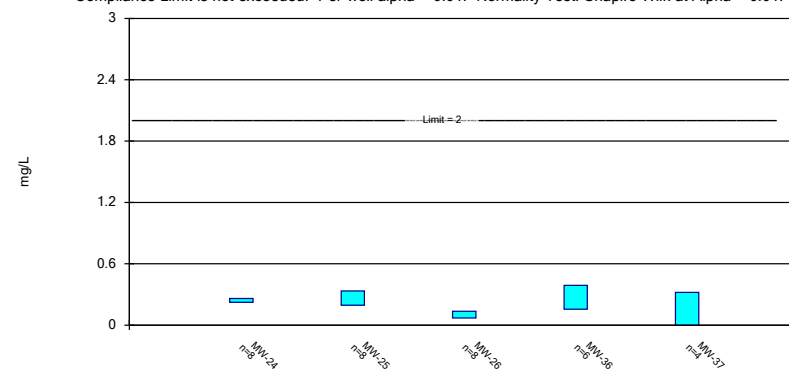


Constituent: Barium Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric Confidence Interval

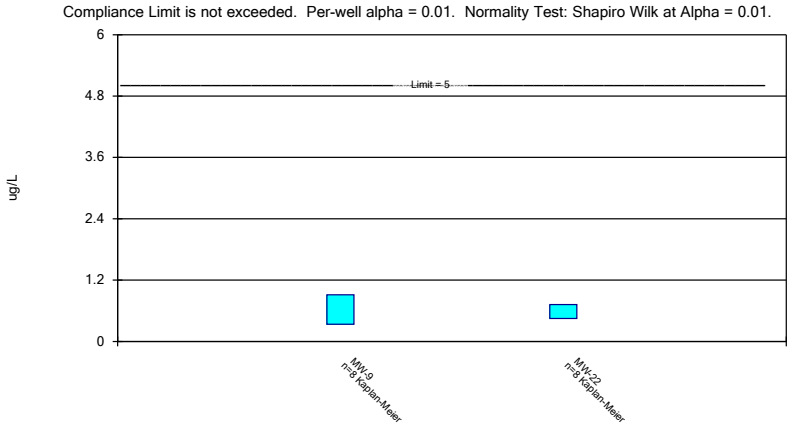
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

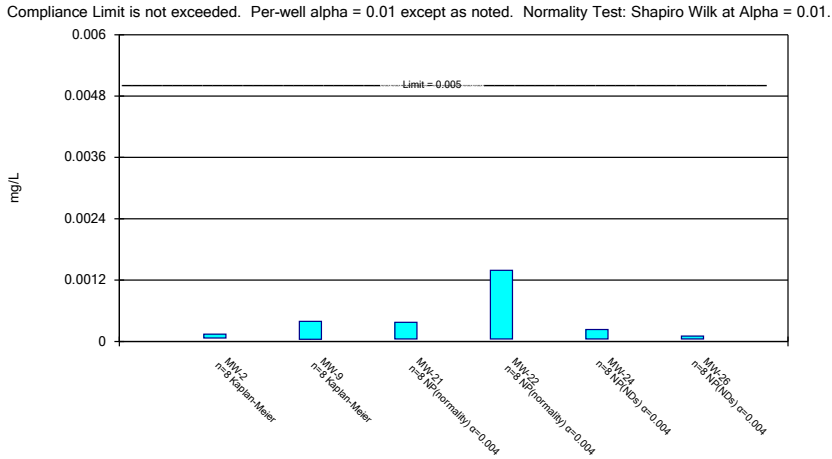
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric Confidence Interval



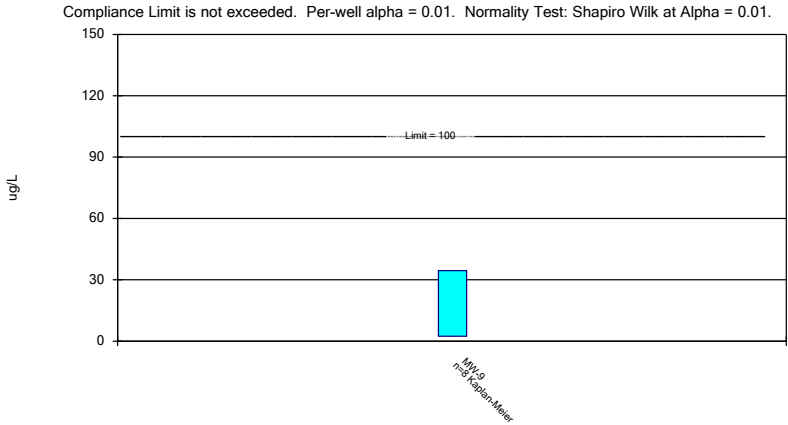
Constituent: Benzene Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval



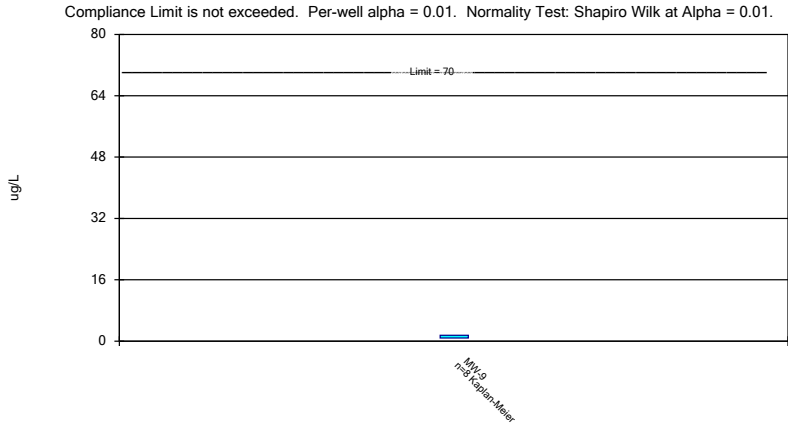
Constituent: Cadmium Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric Confidence Interval



Constituent: Chlorobenzene Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

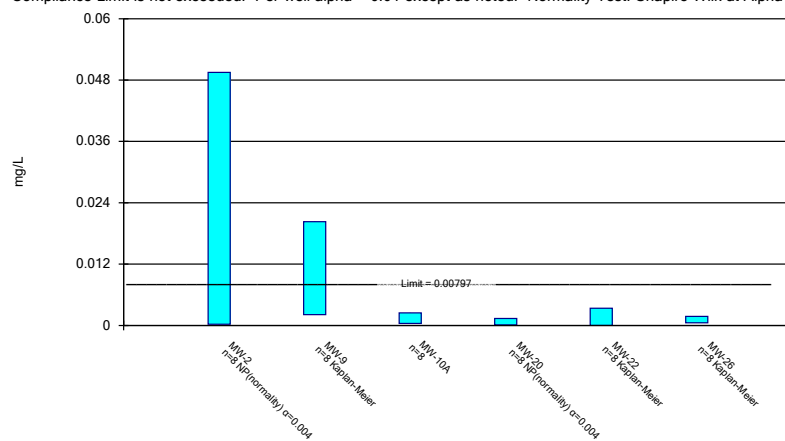
Parametric Confidence Interval



Constituent: cis-1,2-Dichloroethene Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI
Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

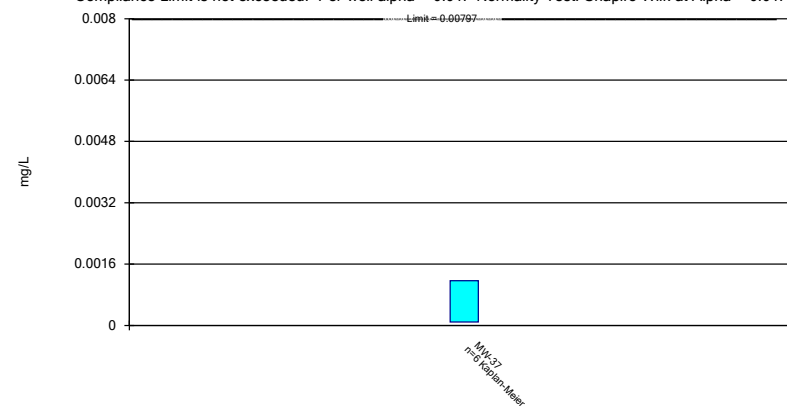


Constituent: Cobalt Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

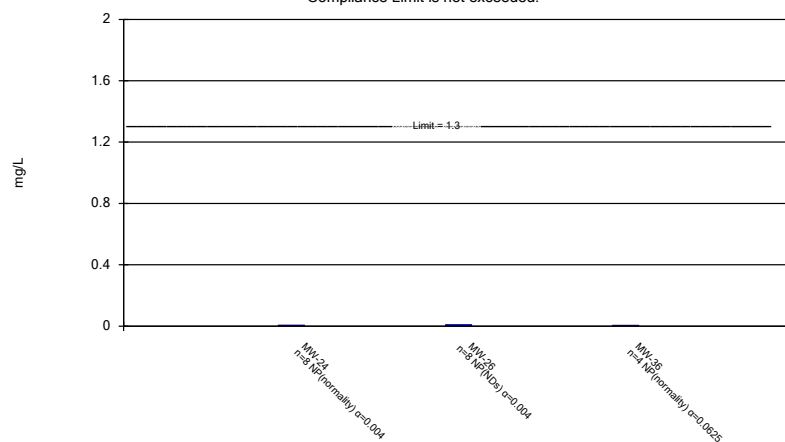


Constituent: Cobalt Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

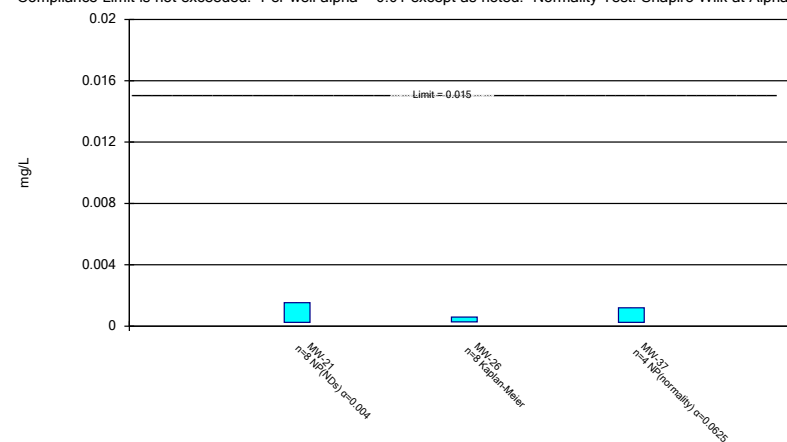


Constituent: Copper Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

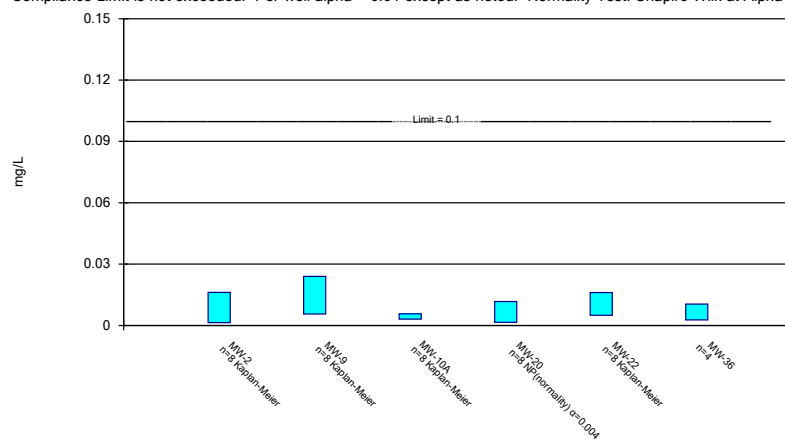


Constituent: Lead Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

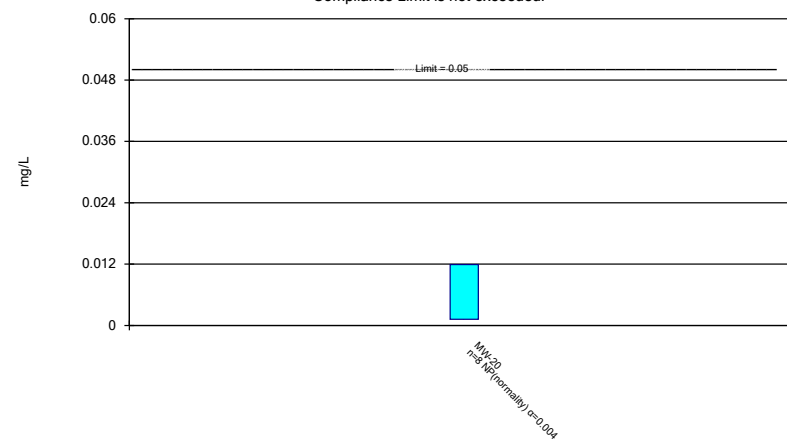


Constituent: Nickel Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

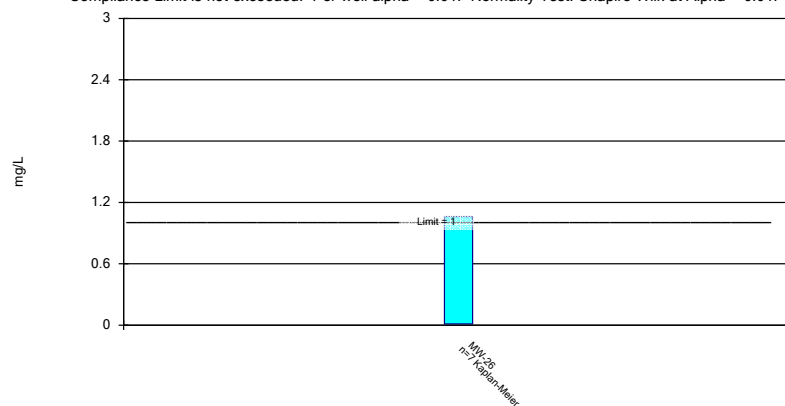


Constituent: Selenium Analysis Run 1/27/2026 2:01 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

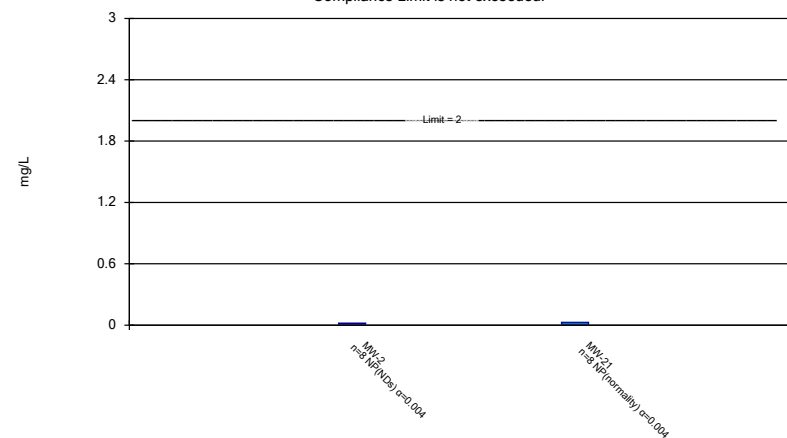


Constituent: Sulfide Analysis Run 1/27/2026 2:02 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Zinc Analysis Run 1/27/2026 2:02 PM View: 2025 AWQR WT CI

Muscatine County SLF Client: SCS Engineers Data: MCSWA_AM_2025_AWQR[IN USE BY 27DES-BHAZEN]

Appendix E
2025 Leachate Control System Performance Evaluation Report

**2025 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION
REPORT**

FOR

MUSCATINE COUNTY SANITARY LANDFILL

MUSCATINE, IOWA

SUBMITTAL DATE: FEBRUARY 2026

PREPARED FOR:

MUSCATINE COUNTY SOLID WASTE MANAGEMENT AGENCY

PREPARED BY:

SCS ENGINEERS

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Section 1.0

Description of Existing Leachate Control System

SCS Engineers, on behalf of the Muscatine County Solid Waste Management Agency, has prepared this Leachate Control System Performance Evaluation Report (LCSPER) for the Muscatine County Sanitary Landfill (Landfill). This LCSPER was prepared in general accordance with the requirements of Iowa Administrative Code (IAC) 567-113.7(5)"b"(14) and additional Iowa Department of Natural Resources (DNR) requirements specified in the Landfill's operating permit. This LCSPER describes the leachate control system, discusses maintenance activities, provides an evaluation of the effectiveness of the system, and, if necessary, provides recommendations for additional control measures. The reporting period is from January – December 2025.

1.1 Report Priority

Leachate piezometer LPZ-T1, located near the northwest corner of the Phase 5 cell, has had a measured leachate thickness above the compliance level of one foot since January 2022. A conversation with the DNR on October 1, 2024, directed the facility to diagnose and correct the cause of the level exceedance during the construction of the Phase 6 cell, tentatively scheduled for 2027. Monthly measurements of the leachate level at LPZ-T1 will continue. Leachate thicknesses in leachate piezometer LPZ-T1 have stabilized between approximately 3-4 feet since August 2024.

1.2 Location of Control System

The Landfill property is depicted in **Figure 1**, Leachate Control System. The Landfill is located in the SE $\frac{1}{4}$ of Section 33, and the SW $\frac{1}{4}$ of Section 34, T78N, R1E, and part of Section 3, and the NE $\frac{1}{4}$ of Section 4, T77N, R1E, in Muscatine County, Iowa. The Landfill property encompasses approximately 188 acres and is situated south of Highway 61 near the intersections of Ward Avenue and County Road Y30.

The Landfill originally consisted of seven individual ravines radiating outward from a topographic high ridge. Six ravines have been filled and are designated as Ravines 2, 3, and 7 on the west and Ravines 5, 6, and 4 on the east. Initial development of the Landfill occurred in 1974 and 1975 with some waste placement in all six ravines prior to 1982. The lower portions of all six ravines were closed prior to October 1989 with a 2-foot soil cap. Various vertical expansions occurred between 1989 and August 2006. Along the topographic high ridge, a six-phase Subtitle D-compliant expansion was designed. Phases 1 through 5 have been constructed. Phases 3 through 5 are actively receiving waste from the City of Muscatine Transfer Station.

The 2014 LCSPER (Doc 82368), prepared by HLW Engineering Group, provided the following description for the leachate control system (LCS) at the Landfill:

...in the original ravine fill areas consists of a series of gravity collection pipes that underlie a majority of the wastes placed in the individual ravine fills at the site. Additionally, collection pipes were also extended up the sideslopes of Ravine 5 & 6 (east side) to mitigate formerly persistent leachate seeps in the landfill cap. A leachate collection pipe has also been installed in Ravine 6 in conjunction with the approved Ravine 5 & 6 Closure Plan. The gravity collection lines (perforated) are connected to a conveyance pipeline (solid wall) at the base of the ravine that then transports the leachate to a holding tank. Leachate holding tanks exist on both the east and west sides of the site.

The leachate control system (LCS) in Phase 1, 2, 3, and 4 of the Expansion Area consists of RCRA Subtitle D-compliant leachate collection and conveyance piping in accordance with IAC 567 Chapter 113.

Ravines 4, 5, and 6 are located in the east portion of the site and drain to the east leachate holding tank. Ravines 2, 3, and 7 are located in the west portion of the site and drain to the west holding tank. The Phase 1 through Phase 4 Horizontal Expansion Area drains to the west leachate holding tank.

The monitoring system for the Landfill consists of fourteen leachate piezometers located within the unlined ravines (LW 2-1, LW 2-2, LW 3-1, LW 3-2, LW 4R-1, LW 4R-2, LW 4R-3, LW 5-1, LW 5-2, LW 5-3, LW 6-1, LW 6-2, LW 7-1, and LW 7-2). In addition, there are three leachate piezometers within the Subtitle D-lined Phase 1 through 5 cells; LPZ-101 in Phase 1, LPZ-301 in Phase 3, and LPZ-T1 in Phase 5. Leachate piezometer LPZ-301 was abandoned on December 13, 2024.

The leachate holding tanks and a leachate lagoon constructed in 2017 (Doc #91210) provide 232,000 gallons of capacity allowing for two feet of freeboard in the lagoon.

1.3 Control System Compliance

1.3.1 Unlined Area

The requirement for leachate head over unlined areas is not specified in the most recent version of 567 IAC 113; however, it is assumed to be similar to the requirement in the 2002 Chapter 113, which required the lowest practical leachate levels above the liner (landfill base). Leachate column thicknesses measured during this reporting period are included in **Attachment A**.

- LW 2-1 – The leachate thicknesses were generally stable throughout this reporting period, but the July 2025 measurement was the lowest since 2015.
- LW 2-2 – The leachate thicknesses were stable and within the historical range during this reporting period.
- LW 3-1 – The leachate thicknesses were stable and within the historical range during this reporting period except for an increase in February-March 2025.
- LW 3-2 – The leachate thicknesses remained stable and within the historical range during this reporting period except for an increase in June-July 2025.
- LW 4R-1 and LW 4R-2 – According to Special Provision 2.g. of the revised permit dated October 12, 2018 (Doc #93495), if leachate levels in piezometers LW 4R-1 and LW 4R-2 have not been reduced by approximately 40% from the 2007 levels, additional steps to further reduce leachate head shall be proposed in the annual LCSPER. The initial thicknesses for LW 4R-1 and 4R-2, obtained from the September 26, 2006 measurement event, were 106.23 feet and 73.33 feet, respectively. It was determined during the 2018 reporting period that, as fluid was not encountered at these points during the reporting period, these piezometers may be kinked or damaged at an elevation higher than the leachate elevation and accurate column thicknesses may not be obtained. The approximate level of the damage in each piezometer is noted in the attached graphs. No fluid was encountered in either LW 4R-1 or LW 4R-2 during this reporting period. Due to the damage, it cannot be determined if the leachate head levels are in compliance with Special Provision 2.g.
- LW 4R-3 – The leachate thicknesses were stable and within the historical range during this reporting period.
- LW 5-1 – The leachate thicknesses were generally stable during this reporting period, but the July 2025 measurement was the lowest in the period of record dating to 2015.
- LW 5-2 – The leachate thicknesses were stable and within the historical range during this reporting period.
- LW 5-3 – The leachate thicknesses were generally stable during this reporting period, though a new historical maximum thickness was measured in April 2025. The historical record

indicates a slowly increasing trend in leachate thickness that appears to have become more stable in the past few years.

- LW 6-1 – The leachate thicknesses were stable and within the historical range during this reporting period, but the thickness of 20.9 feet measured in February, March, and August, 2025 was the lowest since 2017.
- LW 6-2 – The leachate thicknesses increased to above the historical range during this reporting period and a historical maximum thickness was measured in September 2025.
- LW 7-1 – The leachate thicknesses increased to above the historical range during this reporting period and a historical maximum thickness was measured in October 2025.
- LW 7-2 – The leachate thicknesses were stable to slightly decreasing within the historical range during this reporting period, and the November 2025 measurement was the lowest since 2017.

Leachate levels measured during this reporting period are included in **Attachment A**. Historical thicknesses and graphs of leachate levels are included in **Attachment B**.

1.3.2 Subtitle D Lined Area

The Subtitle D-compliant portion of the Landfill, which includes the Phase 1 through 5 cells, is monitored by leachate piezometers LPZ-101 and LPZ-T1. Pursuant to IAC 567-113.7(5)"b"(3), the *"MSWLF unit shall have a leachate collection system that maintains less than a 30-centimeter (i.e., 12-inch) depth of leachate over the liner."*

Leachate levels in leachate piezometer LPZ-101 remained below the 12-inch allowable thickness during this reporting period. The leachate thickness in leachate piezometer LPZ-T1 was above the compliance level throughout the reporting period. The schedule to address the exceedance is discussed in the Report Priority of this report. Leachate thicknesses in leachate piezometer LPZ-T1 have stabilized between approximately 3-4 feet since August 2024.

Leachate column thicknesses measured during this reporting period are included in **Attachment A**. Historical thicknesses and graphs of leachate levels are included in **Attachment B**.

1.4 Approved Changes to System

There were no changes to the leachate control system during this reporting period.

1.5 Proposed Changes to System

SCS recommends continuing to perform the following items to maintain the effectiveness of the leachate control system:

- Continue monthly monitoring of the leachate levels as required in the facility permit. Forward the monthly results to SCS for review of compliance.
- Maintain good vegetation over the final cover and intermediate cover over the inactive areas.
- Continue operation and maintenance of the leachate control system in accordance with the approved Leachate Control System Plan.
- Continue recording the volume of leachate conveyed to the City of Muscatine publicly-owned treatment works for treatment. Analytical test results for this reporting period are included in **Attachment C**.
- Continue cleaning the leachate collection system every three years or more frequently if leachate head or the volume of leachate collected indicates cleaning is necessary. The leachate collection system was last cleaned in June 2023 and will be cleaned next in 2026.

Attachment A
Leachate Management Summary

Leachate Management Summary
2025 Leachate Control System Performance Evaluation Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Month	Unlined Cells - Column Thickness (ft)														Lined Cells - Maximum Head on Liner (ft)		Hauled to Muscatine Water Pollution Control Plant (gal)	Precipitation (in)
	LW 2-1	LW 2-2	LW 3-1	LW 3-2	LW 4R-1	LW 4R-2	LW 4R-3	LW 5-1	LW 5-2	LW 5-3	LW 6-1	LW 6-2	LW 7-1	LW 7-2	LPZ-T1	LPZ 101		
January 2025	33.0	41.1	31.3	25.4	Dry	Dry	48.4	13.6	8.0	28.9	22.3	25.7	25.6	35.6	3.5	Dry	0	0.65
February 2025	29.6	38.0	40.9	24.1	Dry	Dry	45.9	14.2	7.2	28.9	20.9	23.3	25.2	35.9	3.8	0.3	89,311	0.01
March 2025	29.8	38.2	41.1	24.4	Dry	Dry	46.0	14.4	7.2	29.0	21.1	23.4	25.4	36.2	3.8	0.5	284,365	1.65
April 2025	34.2	40.5	31.9	25.8	Dry	Dry	48.7	14.6	8.0	30.8	22.1	24.8	25.3	36.0	3.7	0.3	237,764	2.16
May 2025	32.8	42.5	31.3	25.0	Dry	Dry	46.8	17.4	6.2	29.9	21.6	25.4	25.7	34.0	3.1	0.3	284,395	3.08
June 2025	26.8	39.2	32.9	31.5	Dry	Dry	47.2	10.5	7.5	30.0	22.2	26.0	25.3	36.0	3.2	0.5	165,973	4.16
July 2025	26.5	38.9	32.7	31.3	Dry	Dry	46.7	10.3	7.2	29.7	22.0	25.7	24.9	35.4	2.9	0.2	293,883	10.94
August 2025	27.2	42.4	31.3	26.0	Dry	Dry	47.3	14.4	7.9	30.5	20.9	27.0	26.7	33.1	3.5	0.9	484,942	4.75
September 2025	31.1	41.8	32.2	27.9	Dry	Dry	46.3	14.7	7.5	30.3	22.6	27.4	26.7	33.1	2.9	0.9	140,770	0.47
Nov-25	31.4	41.5	31.0	27.5	Dry	Dry	46.3	14.4	7.7	29.7	22.5	26.9	26.5	31.8	3.3	Dry	97,919	0.77
December 2025	31.4	41.9	32.5	28.2	Dry	Dry	46.7	14.7	7.2	30.5	22.3	27.3	26.8	32.9	3.1	0.7	101,566	1.04
Reporting Period Total																	2,180,888	31.17

Notes:

- 1) Leachate level measurement are collected by Landfill staff.
- 2) The leachate storage capacity, including the two 10,000-gallon underground tanks and a lagoon, is approximately 232,000 gallons allowing for two feet of freeboard in the lagoon.
- 3) Precipitation data obtained from Iowa State University Iowa Environmental Mesonet (https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php?year=2025).
- 4) According to Special Provision 2.g. of the revised permit dated October 12, 2018 (Doc #93495), if leachate levels in piezometers LW 4R-1 and LW 4R-2 have not been reduced by approximately 40% from the 2007 levels, additional steps to further reduce leachate head shall be proposed in the annual LCSPER. The initial thicknesses for LW 4R-1 and 4R-2, obtained from the September 26, 2006 measurement event, are 106.23 feet and 73.33 feet, respectively. It was determined during the 2018 reporting period that, as fluid was not encountered at these points during the reporting period, these piezometers may be kinked or damaged at an elevation higher than the leachate elevation and accurate column thicknesses may not be obtained. The approximate level of the damage in each piezometer is noted in the attached graphs. No fluid was encountered in either LW 4R-1 or LW 4R-2 during this reporting period.

Comments:

Reporting Period: January - December 2025.

Recommended Changes to Leachate Collection System: None.

Maintenance Performed on Leachate Collection System: The schedule to remedy the compliance exceedance in leachate piezometers LPZ-T1 is discussed in the Report Priory of this report.

Last Date of Cleaning and Inspection: June 28, 2023

Date of Next Cleaning and Inspection: Leachate line cleaning and inspection will be performed next in 2026.

Volume of Leachate Recirculated: Leachate is not recirculated at this facility.

Volume of Leachate Treated On-Site: Leachate is not treated on-site at this facility.

Volume of Leachate Treated Off-Site: Approximately 2,180,888 gallons were hauled to the City of Muscatine Water Pollution Control Plant during the reporting period.

Leachate Quality Testing Results: Leachate quality testing results for the reporting period are provided in Attachment C.

Attachment B

Historical Leachate Column Thickness and Graphs

Historical Leachate Column Thicknesses
2025 Leachate Collection System Performance Evaluation Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

	Unlined Cells														Composite-Lined Cells	
	LW 2-1	LW 2-2	LW 3-1	LW 3-2	LW 4R-1	LW 4R-2	LW 4R-3	LW 5-1	LW 5-2	LW 5-3	LW 6-1	LW 6-2	LW 7-1	LW 7-2	LPZ-T1	LPZ 101
Total Depth	69.4	60.1	81.1	52.6	110.5	94.1	75.5	38.8	29.0	32.1	43.3	30.1	44.9	56.2	12.6	5.1
Date																
1/5/15	27.2	38.0	52.2	31.6	Dry	35.8	45.2	16.0	10.0	13.8	24.1	23.3	19.3	27.4	NI	0.1
2/6/15	20.4	40.6	52.1	24.7	Dry	35.4	43.7	15.4	4.4	13.6	24.0	23.2	19.5	28.0	NI	0.5
3/4/15	23.0	40.4	51.1	24.8	Dry	35.0	44.1	15.0	4.1	16.4	23.6	23.2	19.1	27.0	NI	0.6
4/15/15	24.1	41.2	42.2	23.7	Dry	34.4	43.8	14.8	4.0	16.1	23.2	23.1	18.8	23.9	NI	0.5
5/1/15	25.3	40.8	38.9	23.9	Dry	33.8	43.4	14.5	3.9	16.3	22.4	23.2	18.9	22.6	NI	0.5
7/1/15	25.4	41.8	78.2	24.6	Dry	57.8	43.0	14.5	9.0	20.1	23.3	23.4	18.7	22.1	NI	0.2
8/17/15	25.6	41.0	36.8	24.8	Dry	57.8	43.0	15.4	9.0	20.3	22.9	23.4	18.7	21.3	NI	Dry
9/15/15	53.4	41.2	36.8	24.8	Dry	33.9	42.9	15.4	9.0	20.5	22.7	23.4	18.7	21.3	NI	Dry
10/14/15	42.4	41.1	36.7	24.6	Dry	34.1	42.9	14.6	8.3	20.2	23.0	23.4	18.7	21.2	NI	Dry
10/30/15	42.2	41.0	37.3	24.6	Dry	34.1	42.9	14.6	9.0	20.8	23.1	23.8	18.7	21.1	NI	Dry
12/3/15	42.2	40.9	37.2	25.3	Dry	94.1	43.2	14.4	9.0	20.7	23.3	23.7	18.7	20.9	NI	0.2
1/19/16	42.4	41.1	37.1	25.5	Dry	34.5	43.3	14.4	8.5	20.7	22.8	23.6	18.7	21.2	NI	0.1
2/18/16	42.7	41.3	36.9	25.9	Dry	35.7	43.5	14.3	8.3	20.6	22.8	23.6	18.5	21.8	NI	Dry
3/17/16	42.5	41.2	36.8	25.7	Dry	35.5	43.4	14.4	8.4	20.3	22.7	23.4	18.6	21.6	NI	Dry
4/19/16			36.7	25.9	Dry	35.1	43.2	14.3	8.2	20.2	22.5	23.3	18.5	21.6	NI	0.1
5/17/16	41.7	41.5	36.6	25.8	Dry	35.4	43.4	14.2	8.2	20.3	22.6	23.4	18.6	21.6	NI	Dry
6/6/16	42.0	41.6	36.4	25.7	Dry	35.5	43.5	14.1	8.4	20.5	22.7	23.6	18.9	22.0	NI	Dry
7/6/16	40.9	41.5	36.4	26.9	Dry	39.1	42.9	14.8	8.6	21.2	23.3	23.5	19.3	23.3	NI	Dry
8/3/16	41.0	41.6	36.9	27.4	Dry	39.5	43.7	14.8	8.8	21.3	23.3	23.7	19.7	24.0	NI	0.1
9/6/16	41.3	41.7	36.9	28.8	Dry	40.1	44.0	15.0	9.0	21.5	23.3	23.6	20.1	24.4	NI	0.1
10/4/16	41.4	42.2	35.9	27.1	Dry	40.0	43.7	14.7	8.8	21.3	23.2	23.3	20.3	24.4	NI	0.1
11/1/16	41.8	41.5	34.6	26.9	Dry	40.1	44.3	14.6	8.8	21.1	22.9	23.1	20.4	24.2	NI	Dry
12/6/16	41.3	41.2	34.3	26.5	Dry	40.2	44.2	14.5	8.6	20.6	22.7	23.1	20.4	24.9	NI	Dry
1/8/17	41.2	41.2	34.3	26.4	Dry	40.3	44.2	14.6	8.7	19.8	22.5	23.1	20.4	24.5	NI	Dry
2/2/17	41.3	41.3	34.3	26.4	Dry	40.3	42.6	14.5	8.6	20.1	22.2	23.2	20.4	24.8	NI	Dry
3/2/17	41.2	41.2	34.3	26.5	Dry	60.0	42.6	14.5	8.6	20.1	22.2	23.1	20.4	24.9	NI	Dry
4/12/17	44.4	40.9	33.6	18.1	Dry	NM	42.8	14.5	8.6	19.7	22.1	23.1	20.4	24.4	NI	Dry
5/10/17	45.3	41.2	34.4	26.6	Dry	40.9	42.9	14.5	8.6	19.7	22.2	23.1	20.4	24.4	NI	0.5
6/7/17	45.3	41.3	34.6	26.2	Dry	41.1	43.1	14.5	8.6	19.8	22.7	23.1	20.5	27.2	NI	0.5
7/6/17	45.8	41.5	34.3	26.6	Dry	41.3	43.7	14.6	8.6	19.7	22.8	23.1	20.4	26.8	NI	0.6
8/2/17	46.0	41.4	34.4	27.7	Dry	39.3	43.5	14.5	8.7	19.3	22.3	23.5	20.6	23.1	NI	0.5
9/7/17	46.4	41.1	34.3	27.5	Dry	40.3	43.7	14.5	8.7	20.1	22.9	23.0	20.3	30.2	NI	Dry
10/2/17	45.9	41.1	34.4	27.0	Dry	41.1	44.1	14.5	8.6	20.0	20.2	22.9	20.6	35.2	NI	Dry
11/8/17	46.4	40.8	34.3	26.6	Dry	54.8	44.1	14.5	8.7	20.1	14.7	22.9	20.9	35.2	NI	Dry
12/7/17	45.30	41.1	34.2	22.6	Dry	Dry	37.5	14.4	8.7	20.0	20.7	22.9	21.1	35.8	NI	Dry
1/18/18	NM	40.5	34.3	22.6	Dry	Dry	37.5	14.5	NA	19.8	21.3	22.8	20.9	35.2	NM	Dry
2/2/18	NM	40.6	34.3	22.6	Dry	Dry	37.5	14.4	NA	19.8	21.1	22.8	20.9	35.1	NM	Dry
3/5/18	NM	40.4	34.4	22.6	Dry	Dry	37.6	14.4	NA	19.9	21.1	22.9	20.9	35.2	NM	Dry
4/13/18	42.40	41.3	29.1	24.9	Dry	Dry	44.5	14.8	8.0	21.1	22.3	23.3	20.6	37.2	NM	Dry
5/4/18	44.40	41.3	35.1	26.4	Dry	Dry	44.5	14.5	8.3	22.1	23.1	23.1	20.9	38.2	NM	Dry
6/6/18	44.40	41.4	35.1	26.4	Dry	Dry	44.5	14.5	8.1	22.1	23.1	23.0	20.9	38.2	NM	Dry
7/12/18	44.40	41.5	35.2	26.3	Dry	Dry	42.7	14.7	8.6	22.7	23.1	23.1	20.9	38.1	NM	Dry
8/2/18	44.40	42.0	34.1	25.9	Dry	Dry	44.1	14.8	8.5	22.3	22.9	23.1	20.6	38.1	NM	Dry
9/6/18	44.40	41.6	34.1	25.8	Dry	Dry	43.9	14.6	8.3	22.3	22.9	23.1	20.8	38.2	NM	Dry
10/18/18	44.10	41.7	34.1	26.2	Dry	Dry	43.6	14.8	8.6	23.0	23.2	23.1	20.8	38.2	NM	Dry
11/2/18	44.20	41.7	34.0	26.2	Dry	Dry	43.6	14.8	8.7	23.1	23.2	23.1	20.8	38.2	NM	Dry
12/14/18	NM	41.7	34.1	25.9	Dry	Dry	43.7	14.6	8.7	23.0	22.5	23.1	20.6	38.1	NM	Dry
1/18/19	NM	41.8	34.1	26.0	Dry	Dry	43.9	14.7	8.7	26.9	22.6	22.9	20.9	38.2	NM	0.3
2/10/19	NM	41.8	34.0	26.0	Dry	Dry	44.4	14.7	8.7	26.6	22.9	23.0	20.9	38.2	NM	0.3
3/7/19	NM	41.5	32.1	25.7	Dry	Dry	40.5	14.8	8.1	24.1	22.8	22.9	21.1	38.6	NM	0.6
4/16/19	NM	41.5	32.2	25.8	Dry	Dry	43.5	14.8	8.2	23.2	23.2	22.8	21.2	38.6	NM	0.5
5/10/19	NM	41.9	33.7	26.7	Dry	Dry	44.1	14.8	8.2	23.2	23.3	22.8	21.1	38.4	NM	0.5
6/6/19	NM	42.3	33.7	27.8	Dry	Dry	44.6	14.5	8.5	23.7	23.5	22.9	21.0	38.6	NM	0.5
7/5/19	NM	42.4	33.4	23.2	Dry	Dry	45.3	14.6	8.5	23.8	23.3	22.9	21.0	38.6	NM	Dry
8/9/19	NM	42.3	33.3	28.6	Dry	Dry	44.8	14.6	9.0	23.7	23.3	22.7	20.9	38.7	NM	Dry
9/16/19	49.90	42.1	33.1	27.7	Dry	Dry	45.3	14.6	9.0	25.0	23.4	22.8	21.0	39.4	NM	Dry
10/31/19	50.20	42.3	33.3	28.0	Dry	Dry	45.5	19.4	22.0	24.7	23.5	23.0	20.9	39.5	NM	Dry
11/18/19	50.20	42.4	33.3	28.0	Dry	Dry	45.5	19.4	21.9	24.9	23.7	22.9	20.7	39.7	NM	Dry
12/3/19	57.30	42.7	40.9	27.7	Dry	Dry	45.4	14.6	8.7	25.1	23.0	22.9	21.0	39.3	NM	Dry
1/29/20	32.40	42.2	32.9	27.6	Dry	Dry	45.4	14.5	8.5	25.1	23.0	23.0	21.1	39.1	NM	Dry
2/12/20	57.40	42.7	40.8	27.7	Dry	Dry	45.3	14.6	8.8	24.3	23.0	23.0	21.0	39.3	NM	Dry
3/9/20	32.50	42.9	42.1	33.8	Dry	Dry	45.5	14.5	8.6	24.8	23.0	23.0	21.1	39.0	NM	Dry
4/13/20	32.50	43.0	42.1	33.8	Dry	Dry	45.5	14.5	8.6	24.9	23.0	23.1	21.0	39.1	NM	Dry
5/19/20	47.80	42.9	36.1	31.2	Dry	Dry	45.5	14.5	8.6	25.0	23.0	23.0	21.1	39.1	NM	Dry
6/3/20	49.90	42.5	33.1	28.3	Dry	Dry	45.1	15.0	9.3	25.6	24.0	22.9	21.0	40.1	NM	Dry
7/7/20	Dry	43.1	32.9	28.0	Dry	Dry	45.3	14.6	9.1	22.9	23.7	NA	21.0	39.4	NM	Dry
8/6/20	Dry		32.9	28.0	Dry	Dry			9.0	22.9	23.7	NA	21.0	39.4	NM	Dry
9/11/20	Dry	42.7	33.1	27.7	Dry	Dry	45.1	14.5	9.0	23.2	23.3	NA	21.9	39.0	NM	Dry
10/15/20	Dry	42.7	33.1	27.8	Dry	Dry	45.2	14.6	9.0	23.4	23.3	23.1	21.9	38.8	NM	Dry
11/4/20	34.90	42.7	32.8	28.0	Dry	Dry	45.1	14.6	9.0	26.3	23.1	23.0	22.6	38.1	NM	Dry
12/21/20	35.20	42.8	32.9	28.1	Dry	Dry	45.3	14.4	8.5	26.3	23.3	22.9	22.0	37.6	NM	Dry

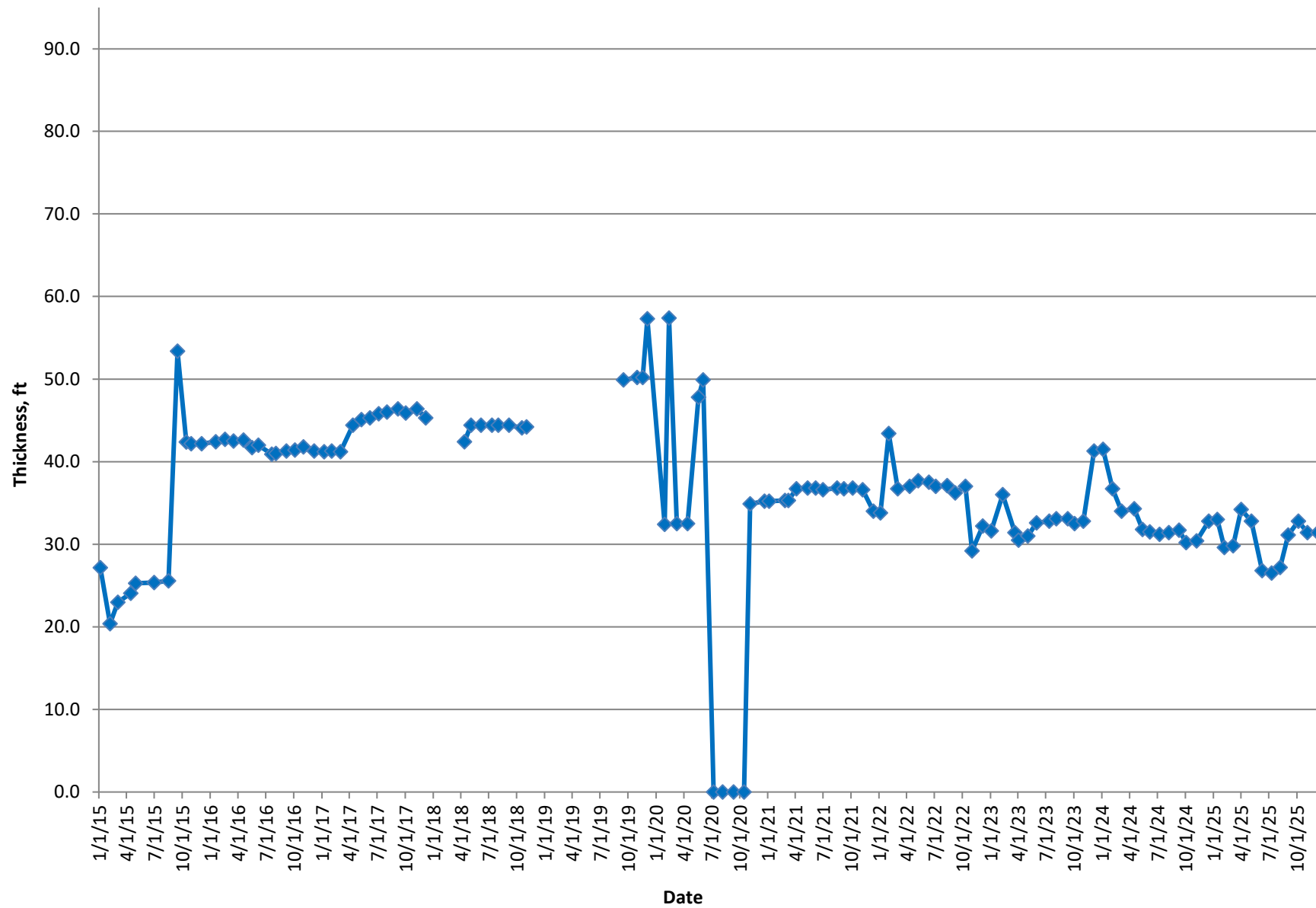
Historical Leachate Column Thicknesses
2025 Leachate Collection System Performance Evaluation Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

	Unlined Cells														Composite-Lined Cells	
	LW 2-1	LW 2-2	LW 3-1	LW 3-2	LW 4R-1	LW 4R-2	LW 4R-3	LW 5-1	LW 5-2	LW 5-3	LW 6-1	LW 6-2	LW 7-1	LW 7-2	LPZ-T1	LPZ 101
Total Depth	69.4	60.1	81.1	52.6	110.5	94.1	75.5	38.8	29.0	32.1	43.3	30.1	44.9	56.2	12.6	5.1
Date																
1/5/21	35.20	42.8	33.0	27.8	Dry	Dry	45.0	15.5	8.4	26.3	23.0	23.0	22.4	38.0	NM	Dry
2/26/21	35.30	42.9	32.9	27.8	Dry	Dry	45.1	13.6	8.3	26.3	23.2	22.9	22.5	38.0	NM	Dry
3/9/21	35.30	42.8	32.9	28.0	Dry	Dry	45.1	13.7	8.2	26.4	22.9	22.7	22.6	38.1	NM	Dry
4/5/21	36.70	42.6	32.9	27.6	Dry	Dry	45.3	14.5	8.6	26.5	23.0	22.9	21.9	35.7	1.6	Dry
5/11/21	36.80	42.5	32.9	27.5	Dry	Dry	45.3	14.6	8.6	26.5	23.1	23.1	21.7	35.5	1.5	Dry
6/7/21	36.80	42.4	33.0	27.5	Dry	Dry	45.4	14.9	8.8	26.8	23.1	23.1	21.7	35.5	0.8	Dry
7/1/21	36.60	42.0	32.9	27.7	Dry	Dry	45.4	14.3	8.0	27.2	23.4	23.0	21.8	37.9	0.7	Dry
8/16/21	36.80	41.9	32.9	27.8	Dry	Dry	45.1	14.4	7.9	27.3	22.9	22.9	21.7	38.2	0.7	Dry
9/7/21	36.70	41.9	32.8	27.7	Dry	Dry	45.3	14.3	7.9	27.3	22.9	22.9	21.7	38.0	0.7	Dry
10/6/21	36.80	41.8	33.0	27.8	Dry	Dry	45.2	14.3	7.8	27.3	22.9	23.0	21.8	38.1	0.8	Dry
11/8/21	36.60	41.9	32.9	27.7	Dry	Dry	45.3	14.2	7.7	27.2	22.7	22.3	21.6	37.9	0.7	Dry
12/13/21	34.00	46.0	31.8	28.3	Dry	Dry	45.1	14.6	7.8	27.9	22.1	22.3	21.5	36.7	0.6	Dry
Total Depth	69.4	60.1	81.1	52.6	110.5	94.1	75.5	38.8	29.0	32.1	43.3	30.1	44.9	56.2	14.1	5.1
1/5/22	33.8	45.9	32.2	28.0	Dry	Dry	44.9	14.2	7.5	27.8	21.9	23.1	21.5	36.7	5.9	Dry
2/1/22	43.4	41.3	32.4	25.6	Dry	Dry	45.2	14.3	7.4	27.7	22.4	23.2	21.8	36.6	7.4	Dry
3/3/22	36.7	41.7	32.2	25.3	Dry	Dry	46.2	14.9	9.0	27.8	22.4	23.3	21.8	36.4	2.8	0.6
4/11/22	37.0	41.6	33.5	25.2	Dry	Dry	45.5	15.7	8.4	27.8	22.7	23.7	21.9	37.1	2.7	0.8
5/9/22	37.7	42.0	32.6	25.7	Dry	Dry	46.8	15.2	8.1	28.2	23.2	24.4	21.7	37.1	9.8	Dry
6/13/22	37.5	41.8	32.4	25.7	Dry	Dry	46.6	14.4	7.8	28.2	23.0	24.2	21.6	37.0	9.8	Dry
7/5/22	37.0	42.2	32.8	26.9	Dry	Dry	46.8	14.5	7.9	28.7	23.3	24.2	22.1	37.4	10.0	Dry
8/12/22	37.1	42.0	33.0	26.8	Dry	Dry	45.3	14.5	8.0	28.5	23.0	24.4	22.5	37.0	9.9	Dry
9/7/22	36.2	42.0	33.7	27.0	Dry	Dry	44.0	14.4	7.8	29.5	23.0	24.9	23.1	37.6	5.2	Dry
10/11/22	37.0	41.9	33.9	27.1	Dry	Dry	46.0	14.8	8.3	28.7	22.6	24.7	23.0	36.6	4.9	Dry
11/1/22	29.2	41.3	31.9	26.4	Dry	Dry	46.1	14.1	8.1	27.8	22.7	24.6	23.1	37.1	3.4	Dry
12/6/22	32.2	41.5	32.0	26.3	Dry	Dry	46.3	14.5	8.3	29.1	22.6	24.7	23.1	37.2	3.1	Dry
1/3/23	31.6	42.0	30.1	26.4	Dry	Dry	50.4	14.3	8.4	29.4	22.7	24.5	23.4	37.3	2.9	Dry
2/10/23	36.0	41.2	32.6	24.8	Dry	Dry	45.6	14.7	8.0	29.3	21.9	24.5	23.5	36.3	3.4	Dry
3/22/23	31.4	41.9	32.2	24.8	Dry	Dry	45.8	14.3	7.7	29.5	22.4	24.5	23.5	36.5	3.6	Dry
4/3/23	30.5	42.1	32.4	25.5	Dry	Dry	46.2	14.7	7.7	29.5	22.7	24.3	23.6	36.1	3.4	Dry
5/3/23	31.0	42.1	31.7	26.1	Dry	38.6	46.2	14.3	7.7	29.5	22.5	24.5	23.6	35.5	3.1	Dry
6/1/23	32.6	42.0	31.4	26.5	Dry	42.3	46.3	14.5	8.2	28.3	23.0	24.3	23.8	35.1	3.1	Dry
7/12/23	32.8	41.9	31.2	32.5	Dry	42.6	45.9	14.6	7.9	28.3	23.3	24.3	24.0	35.0	2.5	Dry
8/4/23	33.1	41.7	31.5	27.0	Dry	42.9	46.3	14.8	8.1	29.3	23.1	24.5	23.9	35.1	2.5	Dry
9/11/23	33.1	41.6	31.5	27.2	Dry	42.9	46.2	14.7	7.9	29.3	23.1	24.5	23.9	35.1	2.2	Dry
10/3/23	32.5	42.0	31.3	27.4	Dry	Dry	45.4	15.5	7.8	29.3	22.5	24.3	23.9	36.3	2.2	Dry
11/1/23	32.8	41.9	31.8	27.4	Dry	Dry	46.2	15.6	7.6	28.9	22.6	24.0	24.0	36.1	1.9	Dry
12/6/23	41.3	38.7	31.6	26.3	Dry	Dry	47.9	16.7	8.2	28.0	22.1	24.7	24.5	34.4	2.5	Dry
1/5/24	41.5	38.8	31.7	26.5	Dry	Dry	53.1	16.8	8.2	27.9	22.1	24.8	24.6	34.5	2.2	Dry
2/5/24	36.7	41.7	32.0	26.8	Dry	Dry	46.8	15.3	8.0	29.4	23.3	24.7	24.6	35.6	2.5	0.8
3/5/24	34.0	41.9	32.1	26.8	Dry	Dry	46.9	15.5	8.2	29.5	22.6	24.5	24.8	36.0	2.5	Dry
4/16/24	34.3	42.2	32.7	26.9	Dry	Dry	46.9	15.5	8.2	29.6	22.7	24.6	24.9	36.1	2.2	Dry
5/13/24	31.8	42.4	32.3	27.2	Dry	Dry	47.7	15.5	8.9	30.1	23.1	25.5	25.6	35.0	2.5	1.1
6/6/24	31.5	42.2	32.1	27.1	Dry	Dry	47.5	15.4	9.0	29.9	23.3	25.3	25.4	34.9	2.5	0.9
7/5/24	31.2	42.0	32.3	27.2	Dry	Dry	48.3	15.6	9.2	30.1	23.5	25.5	25.4	35.0	Dry	Dry
8/7/24	31.4	42.4	32.0	27.7	Dry	Dry	47.8	14.9	8.8	29.9	23.2	25.2	26.0	35.2	3.5	Dry
9/10/24	31.7	42.6	31.7	28.0	Dry	Dry	46.9	15.2	8.0	30.5	23.0	25.5	26.2	37.8	3.9	0.5
10/3/24	30.2	41.3	32.5	27.0	Dry	Dry	47.4	14.7	8.7	29.3	23.2	24.9	25.7	35.1	3.5	Dry
11/6/24	30.4	41.9	33.0	27.4	Dry	Dry	47.8	14.9	9.0	29.5	23.4	25.1	26.0	35.4	3.9	Dry
12/16/24	32.8	40.9	31.0	25.5	Dry	Dry	48.6	13.6	8.1	28.9	22.5	25.7	25.7	35.8	3.7	Dry
1/13/25	33.0	41.1	31.3	25.4	Dry	Dry	48.4	13.6	8.0	28.9	22.3	25.7	25.6	35.6	3.5	Dry
2/5/25	29.6	38.0	40.9	24.1	Dry	Dry	45.9	14.2	7.2	28.9	20.9	23.3	25.2	35.9	3.8	0.3
3/6/25	29.8	38.2	41.1	24.4	Dry	Dry	46.0	14.4	7.2	29.0	21.1	23.4	25.4	36.2	3.8	0.5
4/1/25	34.2	40.5	31.9	25.8	Dry	Dry	48.7	14.6	8.0	30.8	22.1	24.8	25.3	36.0	3.7	0.3
5/5/25	32.8	42.5	31.3	25.0	Dry	Dry	46.8	17.4	6.2	29.9	21.6	25.4	25.7	34.0	3.1	0.3
6/9/25	26.8	39.2	32.9	31.5	Dry	Dry	47.2	10.5	7.5	30.0	22.2	26.0	25.3	36.0	3.2	0.5
7/10/25	26.5	38.9	32.7	31.3	Dry	Dry	46.7	10.3	7.2	29.7	22.0	25.7	24.9	35.4	2.9	0.2
8/7/25	27.2	42.4	31.3	26.0	Dry	Dry	47.3	14.4	7.9	30.5	20.9	27.0	26.7	33.1	3.5	0.9
9/2/25	31.1	41.8	32.2	27.9	Dry	Dry	46.3	14.7	7.5	30.3	22.6	27.4	26.7	33.1	2.9	0.9
10/6/25	32.8	41.7	30.8	27.4	Dry	Dry	46.5	14.5	7.8	29.9	22.7	27.3	26.9	32.0	3.5	Dry
11/1/25	31.4	41.5	31.0	27.5	Dry	Dry	46.3	14.4	7.7	29.7	22.5	26.9	26.5	31.8	3.3	Dry
12/1/25	31.4	41.9	32.5	28.2	Dry	Dry	46.7	14.7	7.2	30.5	22.3	27.3	26.8	32.9	3.1	0.7

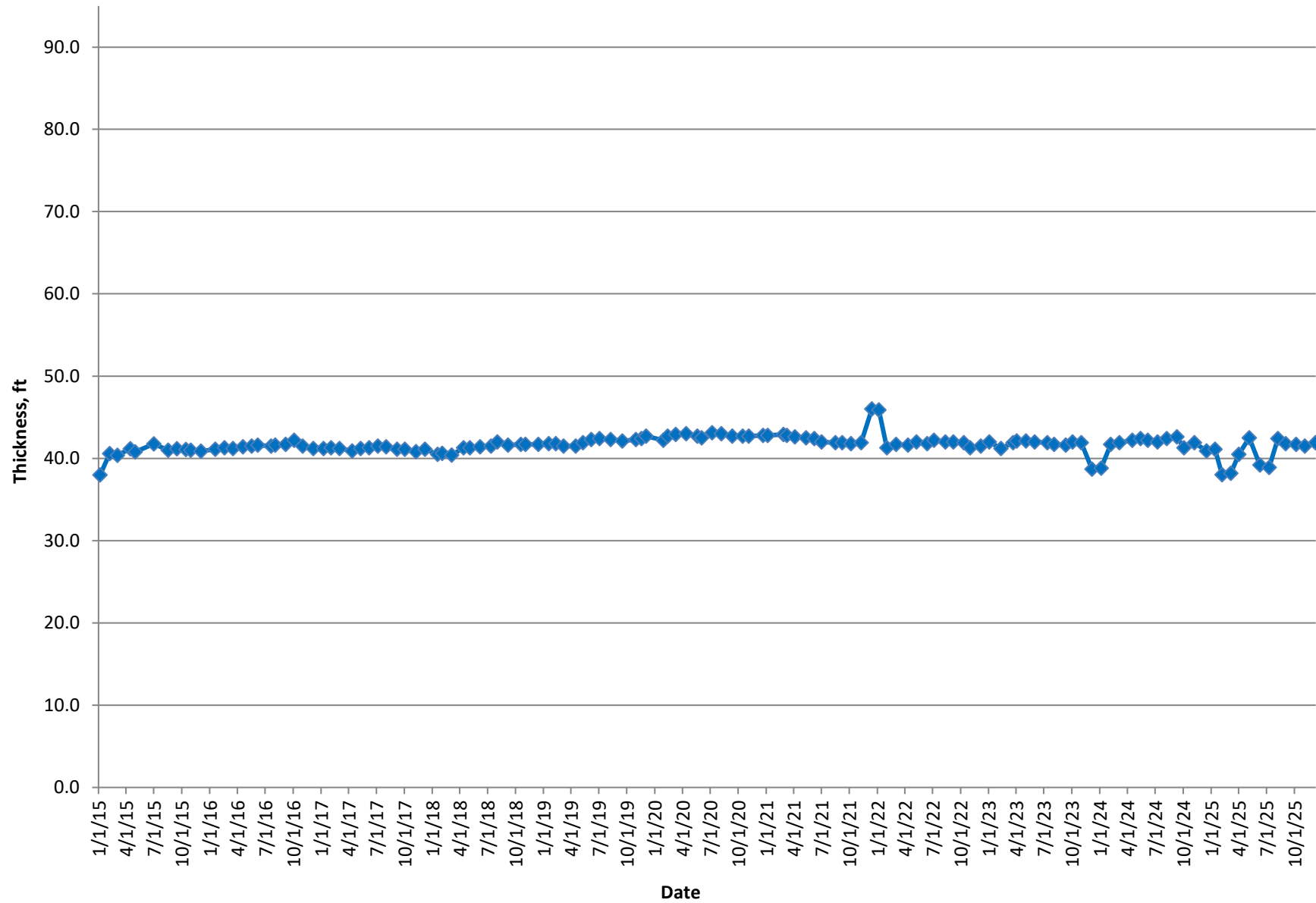
Notes:

1. Leachate level measurements provided by Landfill personnel.
2. Leachate column thicknesses prior to 2015 are available in the 2014 LCSPER.
3. Damage noted during January 2018 measurement in piezometers LW 4R-1 and LW 4R-2 at approximately 61.7 and 54.9 feet, respectively.
4. Piezometer LPZ-T1 was reported as extended beginning during the 2022 reporting period.
5. NI = Not Installed; NM = Not Measured

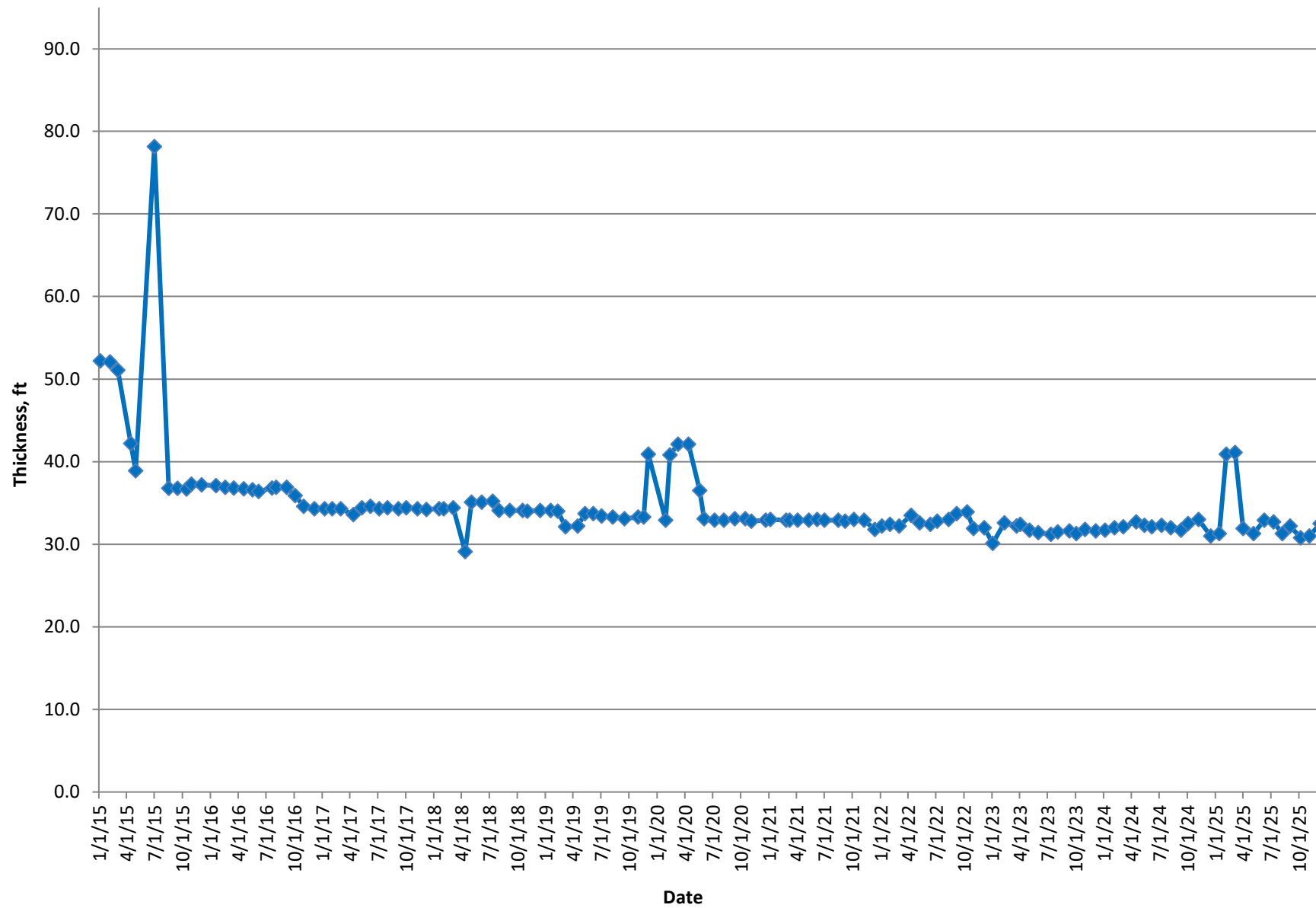
Leachate Column Thickness - LW 2-1



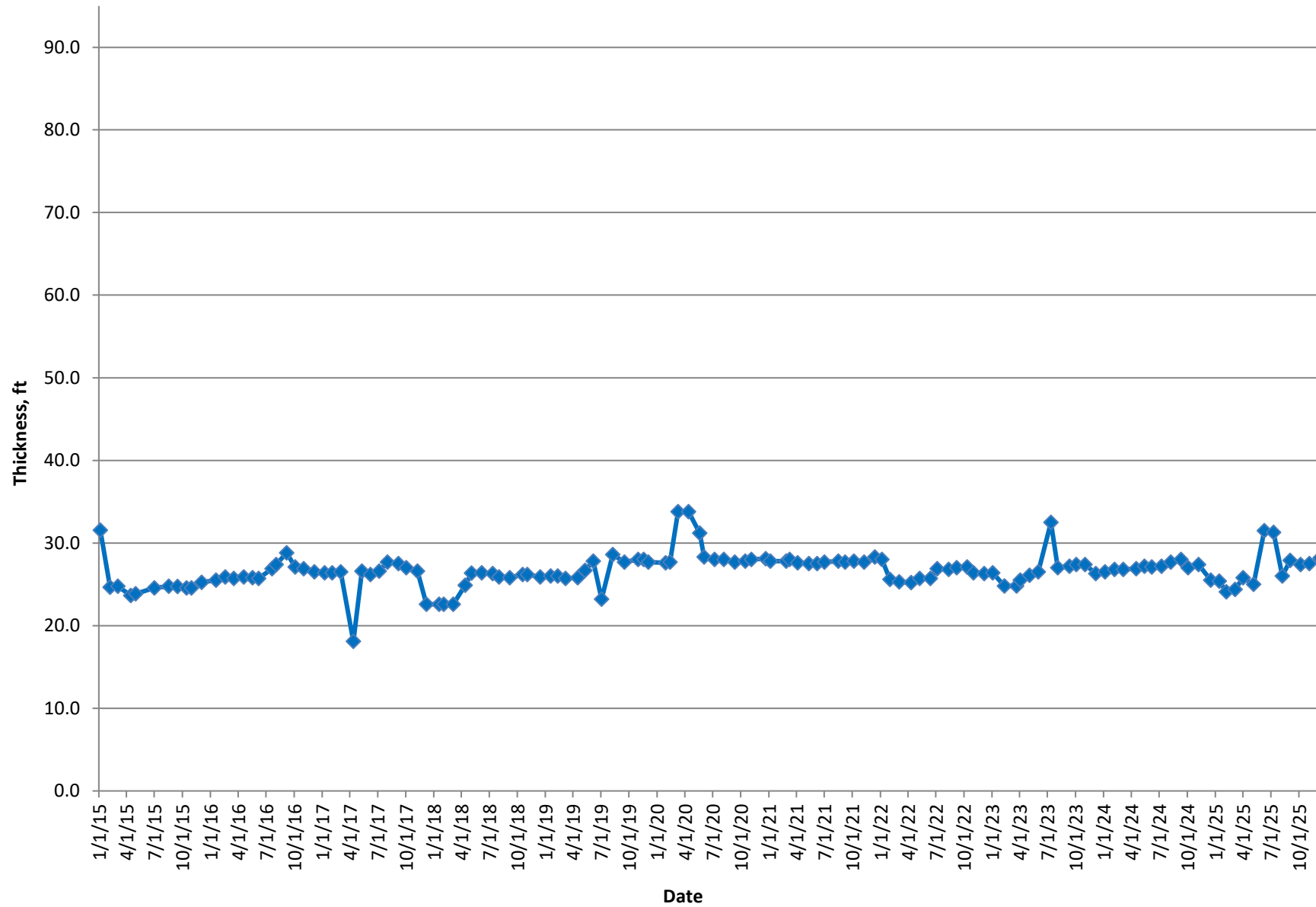
Leachate Column Thickness - LW 2-2



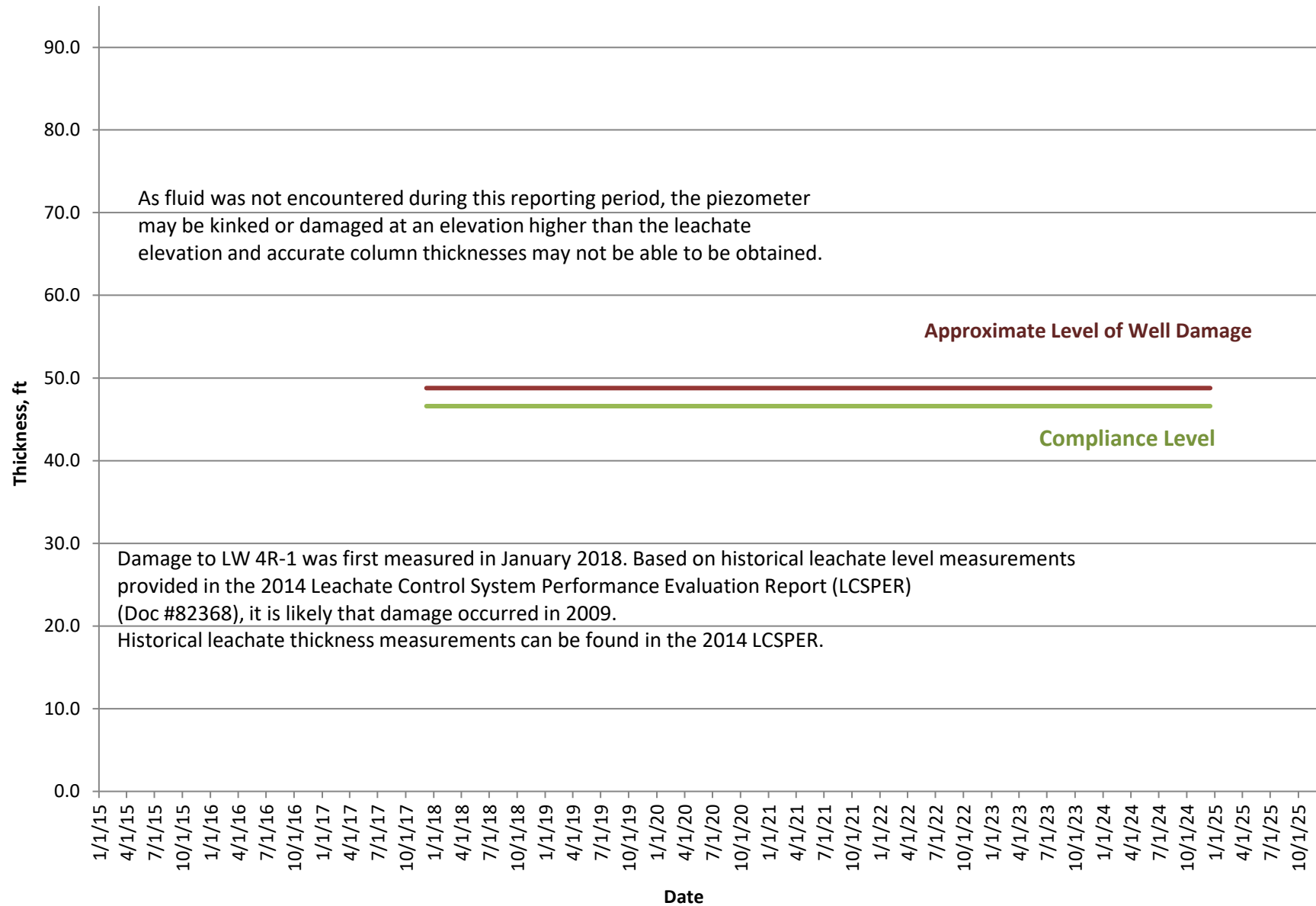
Leachate Column Thickness - LW 3-1



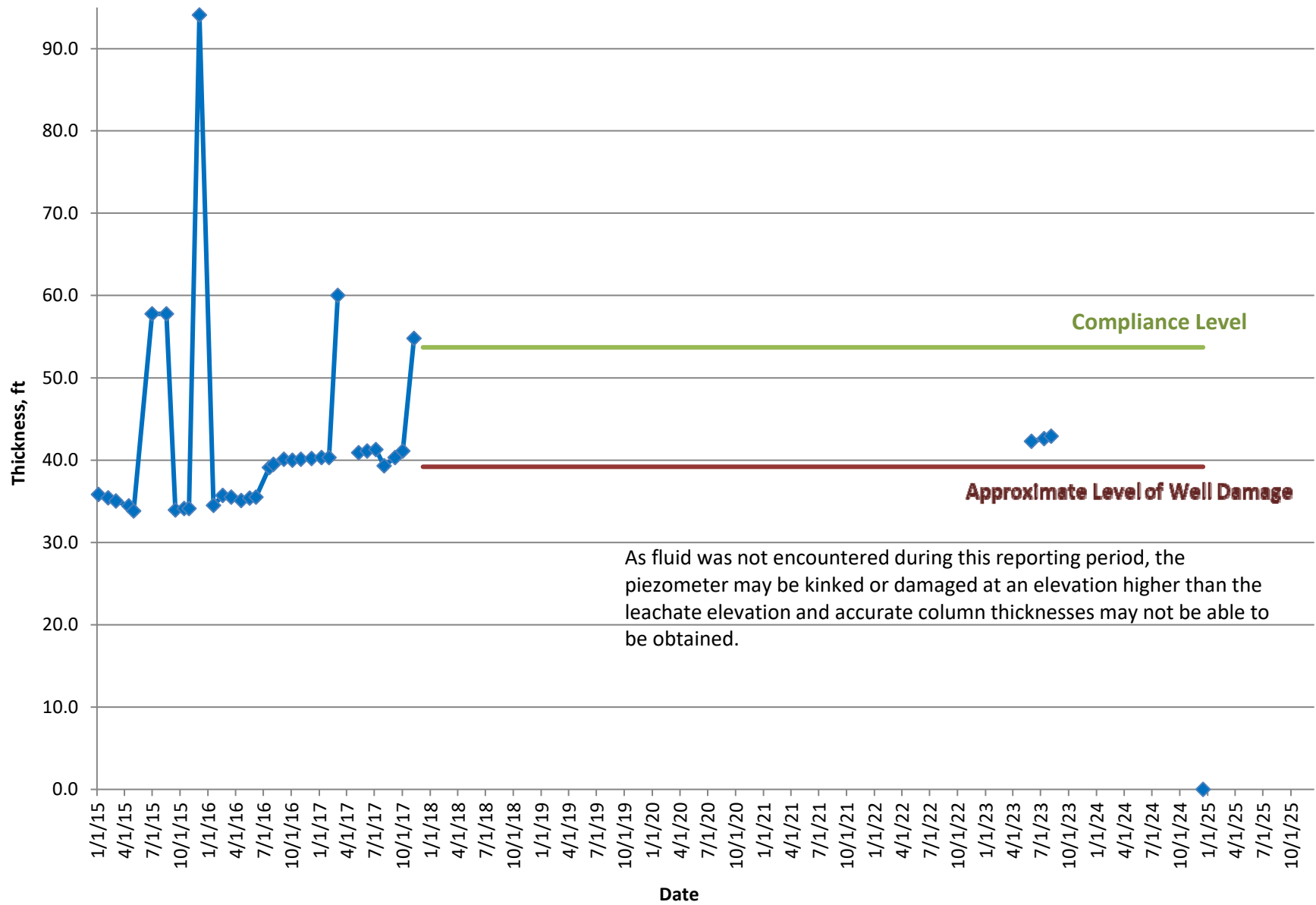
Leachate Column Thickness - LW 3-2



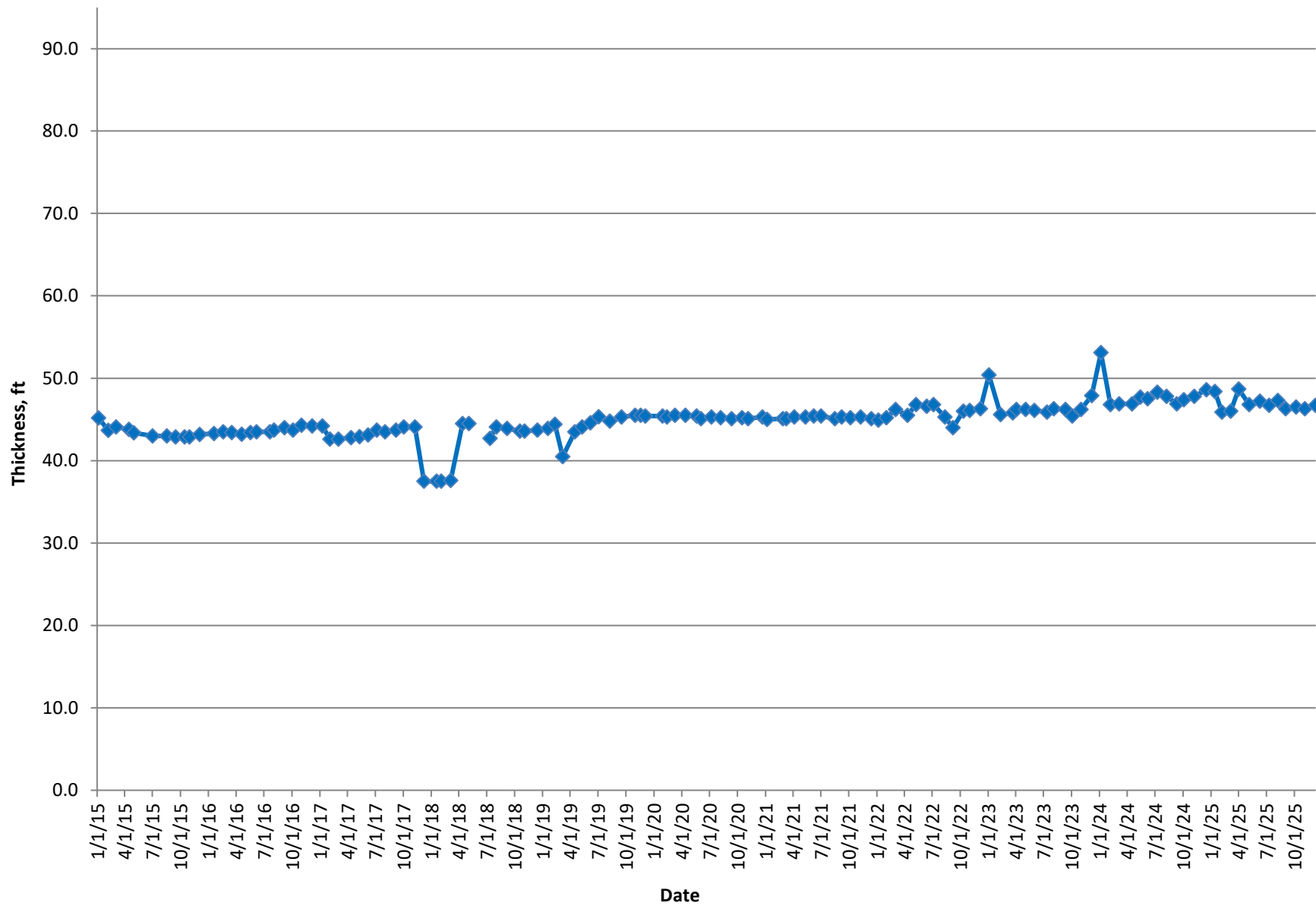
Leachate Column Thickness - LW 4R-1



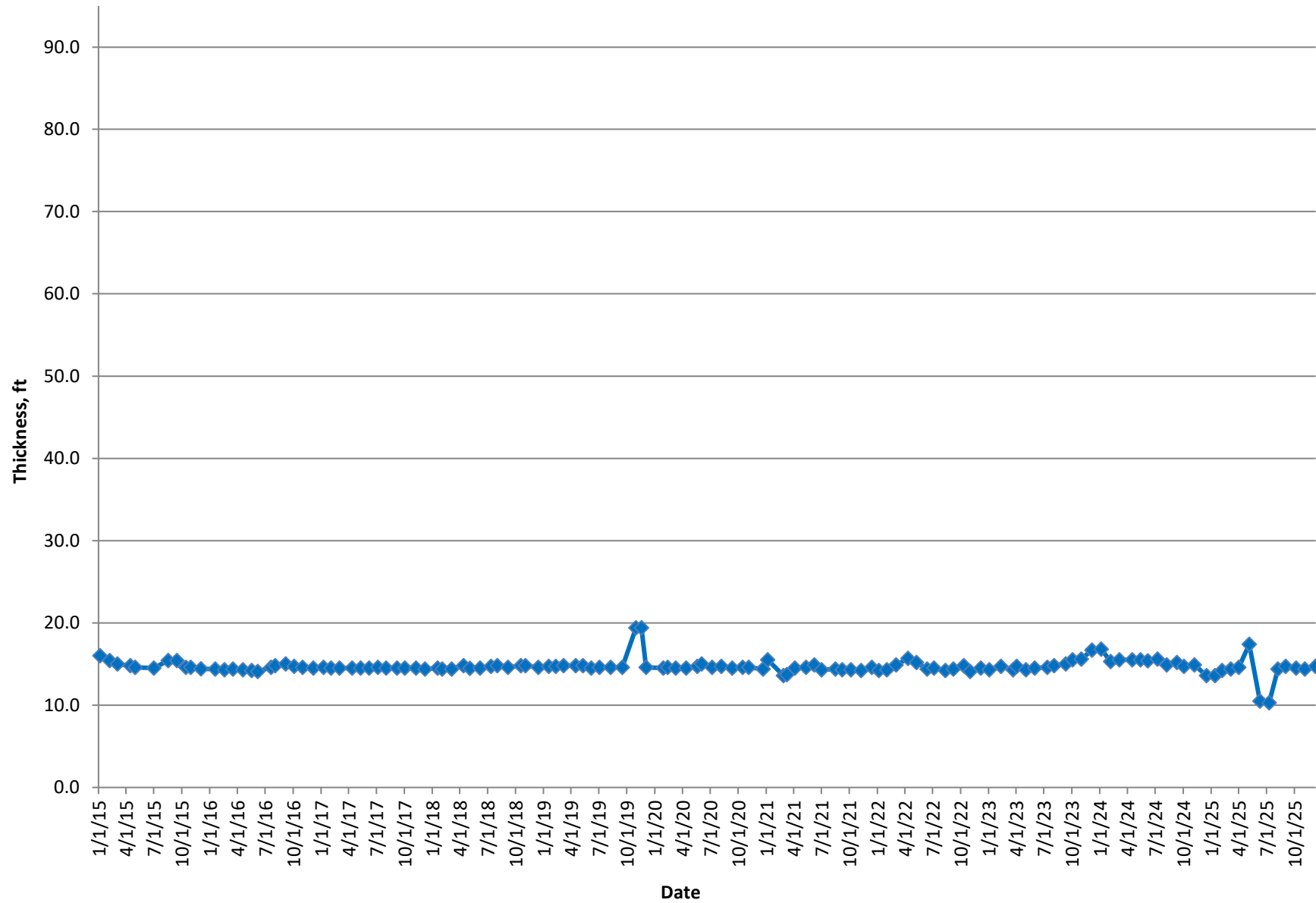
Leachate Column Thickness - LW 4R-2



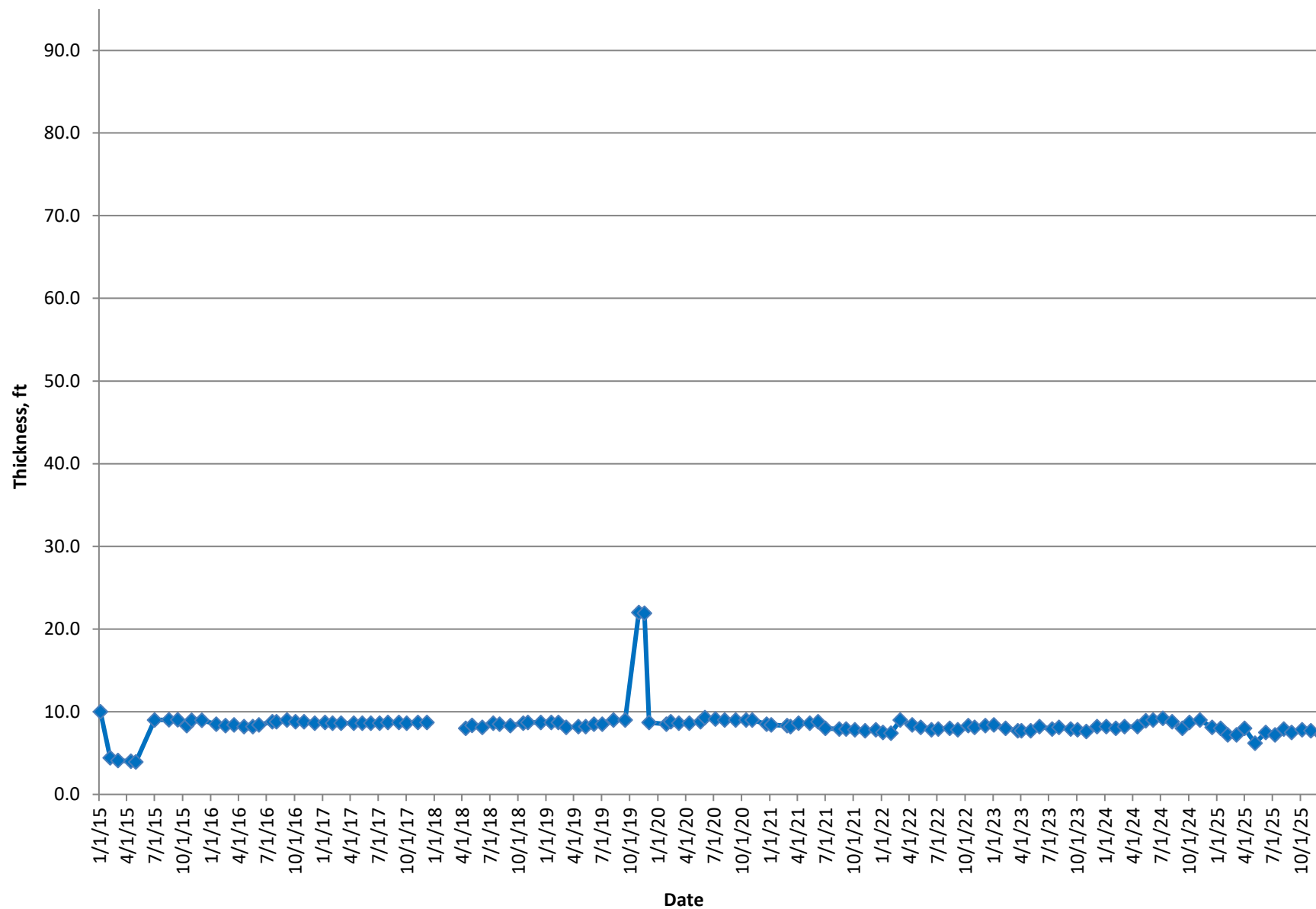
Leachate Column Thickness - LW 4R-3



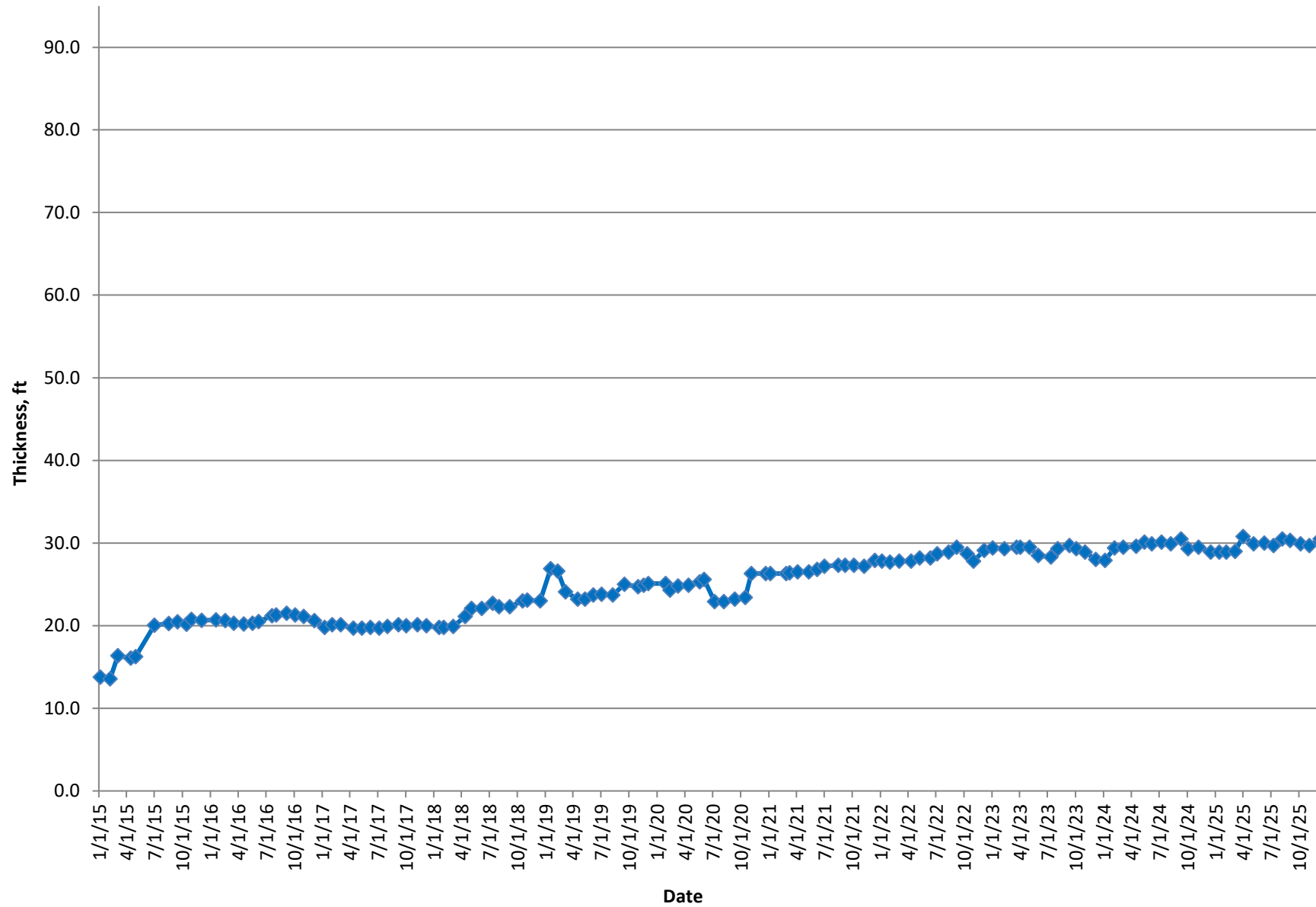
Leachate Column Thickness - LW 5-1



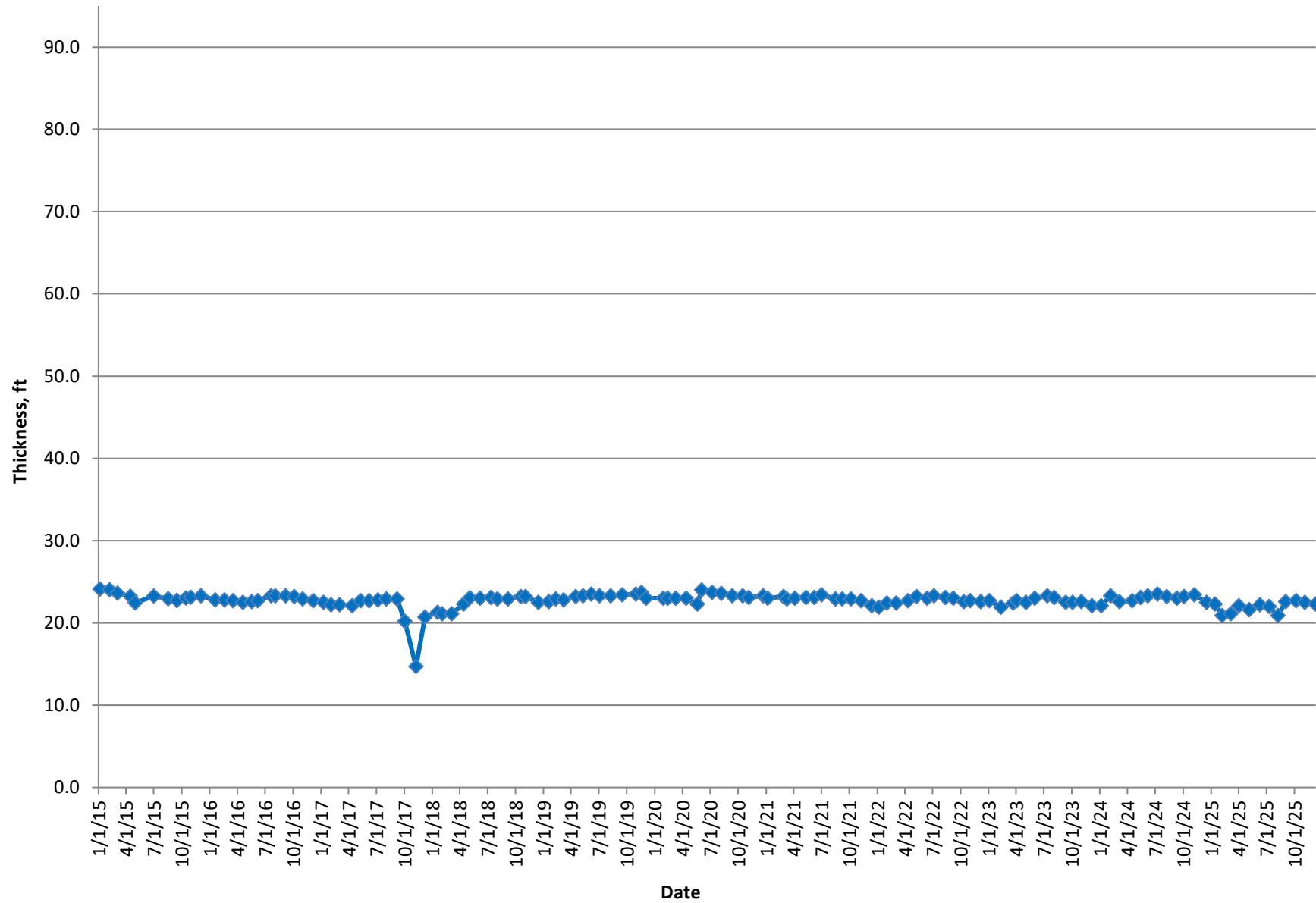
Leachate Column Thickness - LW 5-2



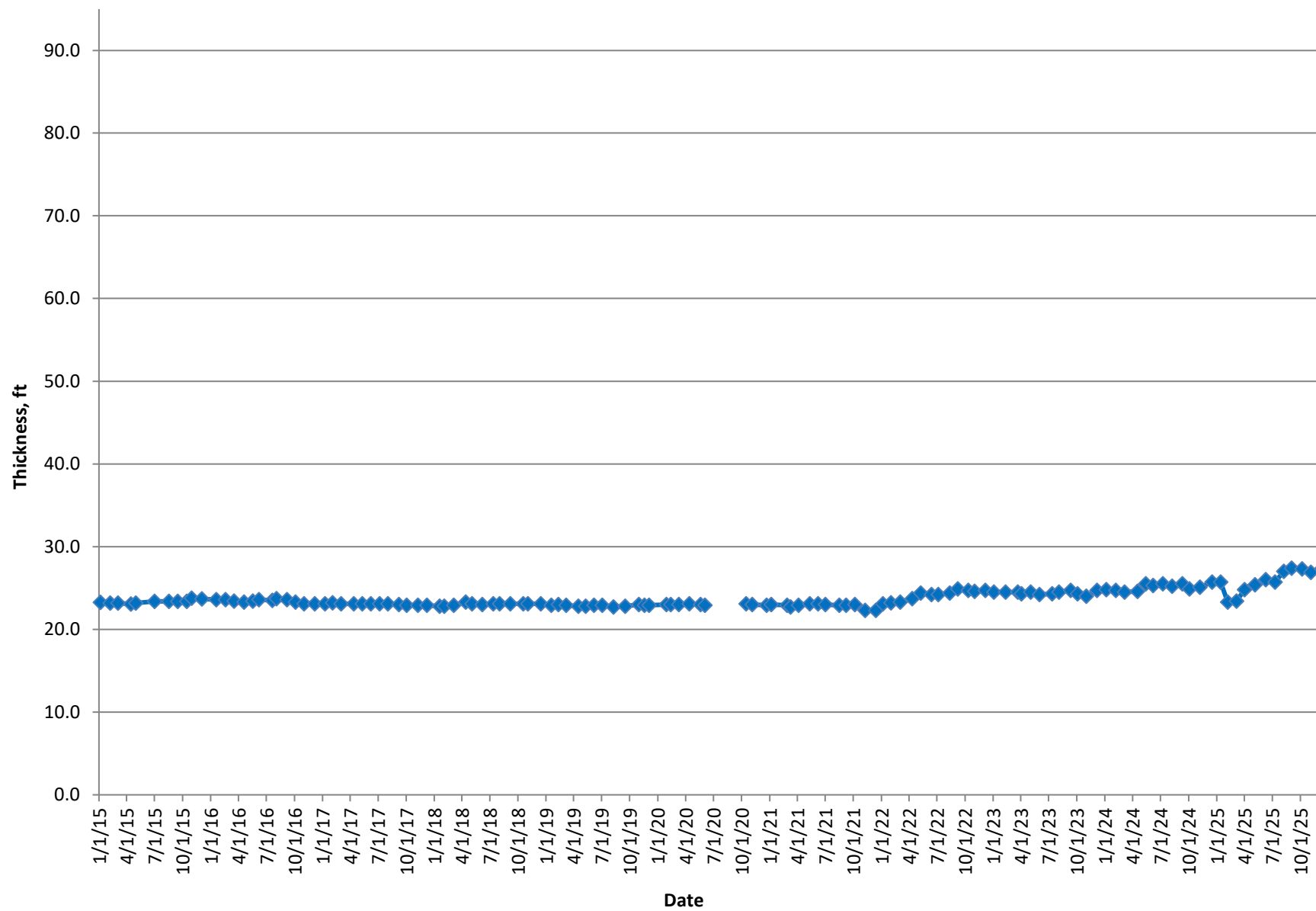
Leachate Column Thickness - LW 5-3



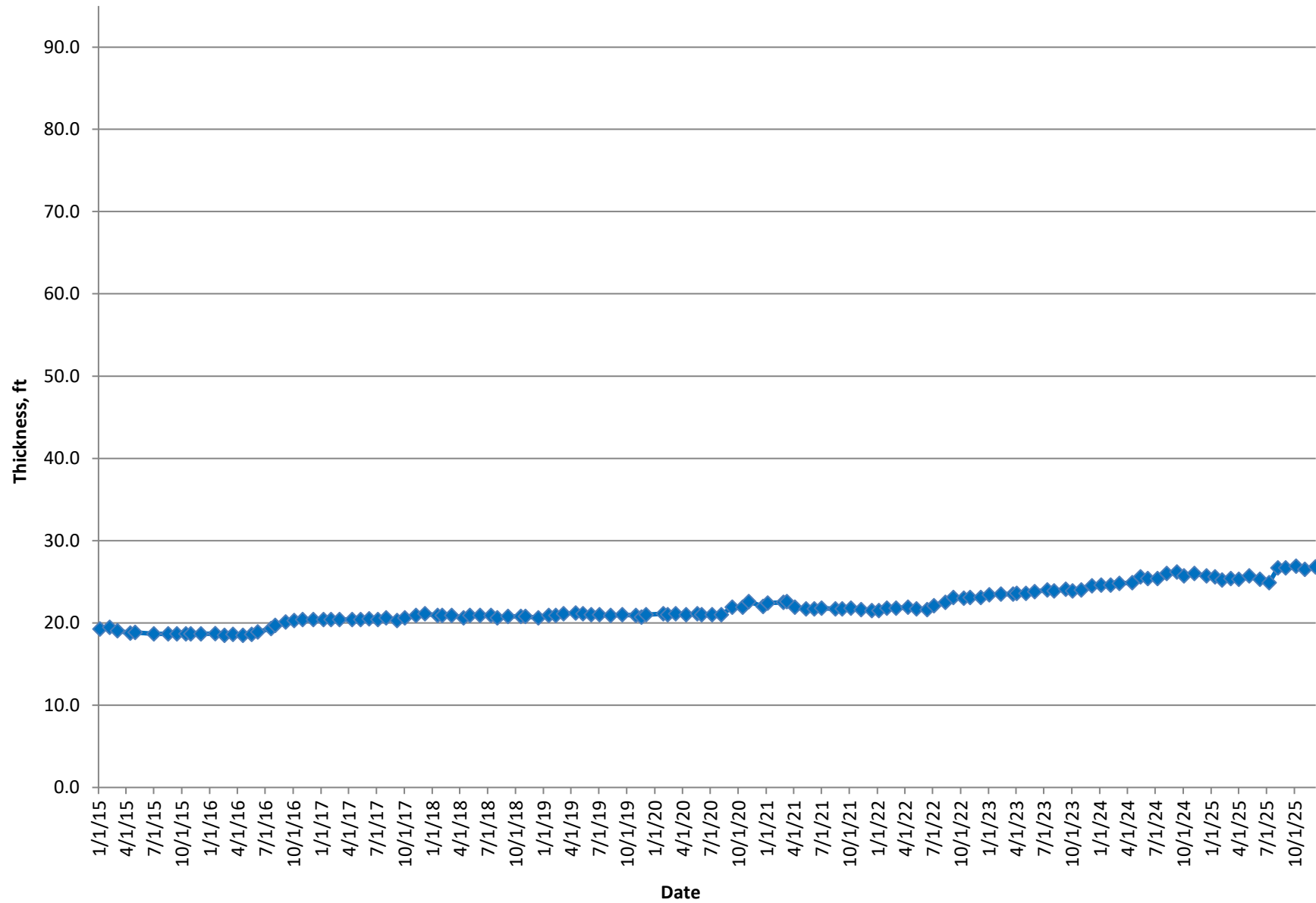
Leachate Column Thickness - LW 6-1



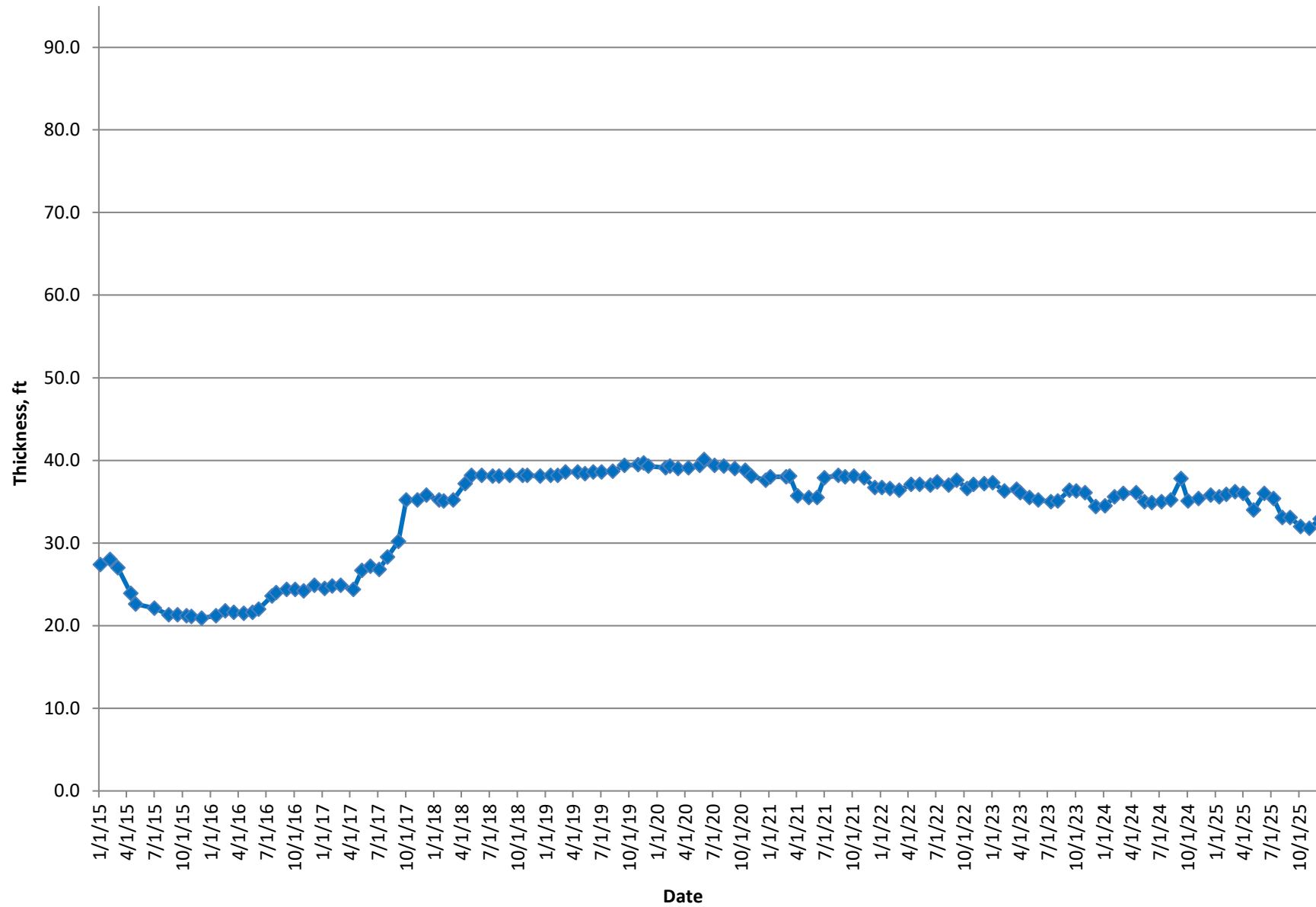
Leachate Column Thickness - LW 6-2



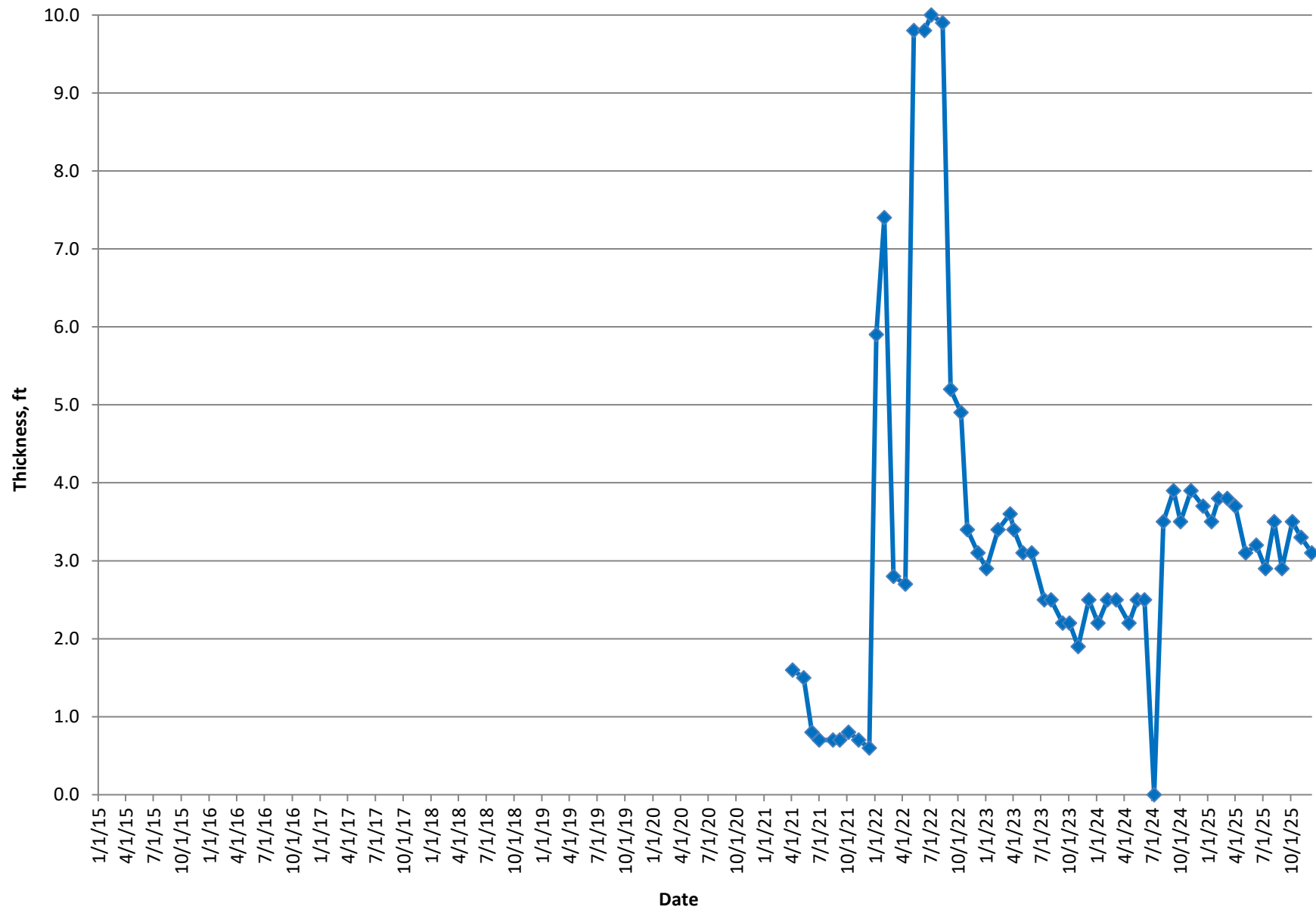
Leachate Column Thickness - LW 7-1



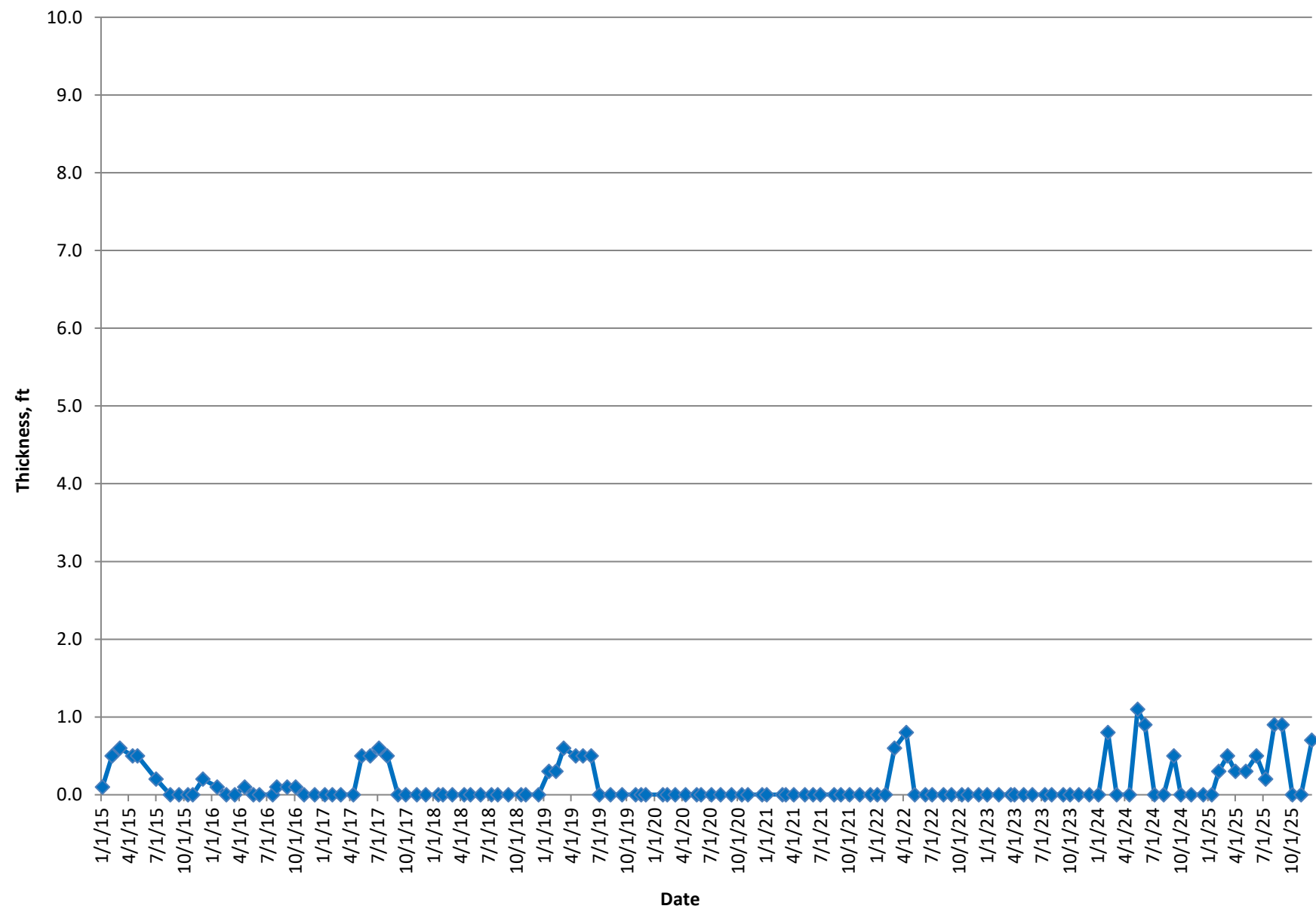
Leachate Column Thickness - LW 7-2



Leachate Column Thickness - LPZ-T1



Leachate Column Thickness - LPZ 101



Attachment C
Leachate Quality Testing Results

Industrial Self-Monitoring Report
Muscatine Water & Resource Recovery Plant
Industrial Pretreatment Program

Muscatine Co. Sanitary Landfill

Quarter 1

Version Date 2/13/24

Manifest No

Gallons

Sample Flow		17542	5,544
Sample Date	1/31/25	17543	5,528
Total Flow for the Day	22,928	17544	5,698
		17545	6,158

Muscatine Sanitary Co. Landfill Quarterly Results

Metals	Local Limit		Results	Sample Analysis	
	Daily Max	Mass		Loading	In Compliance?
	mg/L	LBS	mg/L		
Arsenic		0.053	0.04000	0.008	YES
Barium		Report	0.33200	0.0635	Report
Cadmium		0.083	0.008	0.0015	YES
Chromium		0.41	0.072	0.0138	YES
Copper		0.11	0.009	0.0017	YES
Lead		0.35	0.008	0.002	YES
Mercury		0.005	0.0080	0.0015	YES
Molybdenum		0.020	0.040	0.0076	YES
Nickel		0.39	0.071	0.0136	YES
Selenium		0.088	0.0200	0.0038	YES
Silver		0.28	0.002	0.0004	YES
Zinc		0.33	0.020	0.0038	YES
Ammonia as N		Report	878	167.9	Report
Total Kjeldahl Nitrogen as N		150	1020	195.0	Report
Phosphorus, Total as P		Report	6.88	1.32	Report
Chloride		Report	2110	403.5	Report
Oil/Grease (mg/L)		100	4.0		YES
Cyanide		0.024	0.010	0.002	YES
Phenol		Report	0.1	0.024	Report
TTO, Annually	2.13				

1. Compliance: a) YES X b) NO

2. Notification to Pretreatment Coordinator, Muscatine WPCP:
a) YES b) NO c) N/A X

3. Steps to return to compliance: _____

4. Laboratory analysis results, flow meter readings attached: a) YES b) NO



1202 Musser St.
Muscatine, IA 52761-1645
(563) 263-2752
Fax (563) 263-3720
www.muscatineiowa.gov

WATER & RESOURCE RECOVERY FACILITY

Client:

Solid Waste Transfer Station
1000 South Houser Street
Muscatine, IA 52761

Report Date: April 22, 2025

Attn: Matt Fulton

Analytical Report

Sample Received

3/28/25 2:05 PM

Storm Water Site 1

Sample Number 25-03-584

Collection Date

3/28/25 12:45 PM

East Let Down

Site	Parameter	Matrix	Result	Units	Method Reference	Date Analyzed	Analyst
	Ammonia	CWA	<0.9	mg/L	SM 4500-NH3 B,E	4/4/2025	cmr
	Total Oil & Grease	CWA	<8	mg/L	EPA 1664 A	4/17/2025	cmr
	Chloride	CWA	26.0	mg/L	EPA 300.0	4/2/25 18:30	zba
	Sulfate	CWA	36.3	mg/L	EPA 300.0	4/2/25 18:30	zba
	Nitrate	CWA	<0.18	mg/L	EPA 300.0	4/2/25 18:30	zba
	Nitrite	CWA	<0.11	mg/L	EPA 300.0	4/2/25 18:30	zba
	Chemical Oxygen Demand	CWA	39.1	mg/L	SM 5220D (2011)	4/2/2025	ktn
	Silver	CWA	<0.002	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Arsenic	CWA	<0.040	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Cadmium	CWA	<0.008	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Chromium	CWA	<0.020	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Copper	CWA	0.009	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Iron	CWA	<0.20	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Mercury	CWA	<0.008	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Molybdenum	CWA	<0.040	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Nickel	CWA	<0.008	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Lead	CWA	<0.008	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Selenium	CWA	<0.020	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Zinc	CWA	<0.020	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Barium	CWA	0.163	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Cobalt	CWA	<0.008	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Magnesium	CWA	29.3	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Dissolved Magnesium	CWA	29.7	mg/L	EPA 200.7	4/11/25 13:13	ktn
	Sodium	CWA	11.4	mg/L	EPA 200.7	4/11/25 13:17	ktn
	Total Organic Carbon	CWA	11.2	mg/L	EPA 415.1	4/7/25 0:00	Microbac
	Bicarbonate	CWA	307	mg/L	SM 2320B 2011	4/8/2025	Microbac
	Total Dissolved Solids	CWA	395	mg/L	USGS 1-1750-85	3/31/2025	Microbac

IA Lab 189

Approved By:


Patti Fuller-Bloechl, Chemist



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Fax (563) 263-3720
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WATER & RESOURCE RECOVERY FACILITY

Client:

Solid Waste Transfer Station
1000 South Houser Street
Muscatine, IA 52761

Report Date:

June 13, 2025

Analytical Report

Site	Parameter	Matrix	Result	Units	Method Reference	Date Analyzed	Analyst
	Load Manifest Number:	19403					
	Tanker Date:	Friday, May 9, 2025					
	Gallons:	5818					
	Ammonia	Wastewater	587	mg/L	SM 4500-NH3 B,E	5/16/2025	ktn
	Total Kjeldahl Nitrogen	Wastewater	671	mg/L	SM 4500-NH3 B,C,E	5/12/2025	ktn
	Total Phosphorus	Wastewater	3.02	mg/L	SM 4500-P B.5,E	5/15/2025	cmr
	Chloride	Wastewater	1350	mg/L	EPA 300.0	5/14/25 17:12	ktn
	Cyanide	Wastewater	<0.010	mg/L	4500 CN C,E *	5/15/2025	zba
	Total Oil & Grease	Wastewater	<4	mg/L	EPA 1664	6/12/2025	ktn
	Silver	Wastewater	<0.002	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Arsenic	Wastewater	<0.040	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Barium	Wastewater	0.332	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Cadmium	Wastewater	<0.008	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Chromium	Wastewater	0.072	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Copper	Wastewater	0.009	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Mercury	Wastewater	<0.008	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Molybdenum	Wastewater	<0.040	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Nickel	Wastewater	0.071	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Lead	Wastewater	<0.008	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Selenium	Wastewater	<0.020	mg/L	EPA 200.7	3/26/25 10:35	ktn
	Zinc	Wastewater	<0.020	mg/L	EPA 200.7	3/26/25 10:35	ktn
	<i>Also Present-</i>						
	Iron	Wastewater	4.86	mg/L	EPA 200.7	3/26/25 10:35	ktn

Approved By:

Patti Fuller-Bloechl, Chemist



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WATER & RESOURCE RECOVERY FACILITY

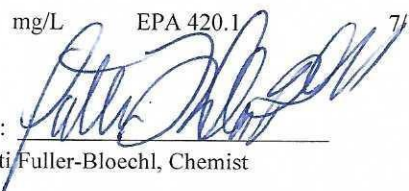
Client:
Solid Waste Transfer Station
1000 South Houser Street
Muscatine, IA 52761

Report Date: July 14, 2025

Analytical Report

Site	Parameter	Matrix	Result	Units	Method Reference	Date Analyzed	Analyst
	Load Manifest Number:	19447					
	Tanker Date:	Monday, June 16, 2025					
	Gallons:	5662					
	Phenols	Wastewater	<0.035	mg/L	EPA 420.1	7/14/2025	Microbac

IA-189

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Patti Fuller-Bloechl, Chemist



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WATER & RESOURCE RECOVERY FACILITY

Client:

Solid Waste Transfer Station
1000 South Houser Street
Muscatine, IA 52761

Report Date:

October 24, 2025

Analytical Report

Site	Parameter	Matrix	Result	Units	Method Reference	Date Analyzed	Analyst
	Load Manifest Number:	19478					
	Tanker Date:	Wednesday, July 23, 2025					
	Gallons:	5624					
	Ammonia	Wastewater	396	mg/L	SM 4500-NH3 B,E	8/1/2025	ktn
	Total Kjeldahl Nitrogen	Wastewater	478	mg/L	SM 4500-NH3 B,C,E	8/19/2025	ktn
	Total Phosphorus	Wastewater	3.91	mg/L	SM 4500-P B.5,E	7/25/2025	zba
	Phenols	Wastewater	<0.035	mg/L	EPA 420.1	8/11/2025	Microbac
	Chloride	Wastewater	1290	mg/L	EPA 300.0	7/24/25 19:33	ktn
	Cyanide	Wastewater	<0.010 ^	mg/L	4500 CN C,E *	8/12/2025	zba
	Total Oil & Grease	Wastewater	<4	mg/L	EPA 1664	7/29/2025	cmr
	Silver	Wastewater	<0.004	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Arsenic	Wastewater	<0.080	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Barium	Wastewater	0.449	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Cadmium	Wastewater	<0.016	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Chromium	Wastewater	0.094	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Copper	Wastewater	0.023	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Mercury	Wastewater	<0.016	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Molybdenum	Wastewater	<0.080	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Nickel	Wastewater	0.111	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Lead	Wastewater	0.019	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Selenium	Wastewater	<0.040	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Zinc	Wastewater	0.043	mg/L	EPA 200.7	10/10/25 17:23	ktn
	Also Present-						
	Iron	Wastewater	10.98	mg/L	EPA 200.7	10/10/25 17:23	ktn

^ - Past holding time.

Approved By:

Patti Fuller-Bloechl, Chemist



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WATER & RESOURCE RECOVERY FACILITY

Client:

Solid Waste Transfer Station
1000 South Houser Street
Muscatine, IA 52761

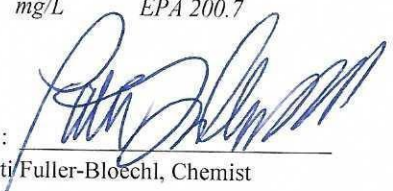
Report Date:

December 12, 2025

Analytical Report

Site	Parameter	Matrix	Result	Units	Method Reference	Date Analyzed	Analyst
	Load Manifest Number:	1880					
	Tanker Date:	Friday, October 31, 2025					
	Gallons:	5460					
	Ammonia	Wastewater	526	mg/L	SM 4500-NH3 B,E	11/7/2025	zba
	Total Kjeldahl Nitrogen	Wastewater	30	mg/L	SM 4500-NH3 B,C,E	11/18/2025	ktn
	Total Phosphorus	Wastewater	3.65	mg/L	SM 4500-P B.5,E	11/7/2025	ktn
	Chloride	Wastewater	1540	mg/L	EPA 300.0	11/5/25 17:31	cmr
	Cyanide	Wastewater	<0.010	mg/L	4500 CN C,E *	11/14/2025	zba
	Total Oil & Grease	Wastewater	<4	mg/L	EPA 1664	11/20/2025	ktn
	Silver	Wastewater	<0.003	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Arsenic	Wastewater	<0.12	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Barium	Wastewater	0.449	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Cadmium	Wastewater	<0.024	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Chromium	Wastewater	0.112	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Copper	Wastewater	0.026	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Mercury	Wastewater	<0.024	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Molybdenum	Wastewater	<0.12	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Nickel	Wastewater	0.124	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Lead	Wastewater	<0.024	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Selenium	Wastewater	<0.060	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Zinc	Wastewater	<0.060	mg/L	EPA 200.7	12/2/25 15:48	ktn
	Also Present-						
	Iron	Wastewater	7.52	mg/L	EPA 200.7	12/2/25 15:48	ktn

Approved By:


Patti Fuller-Bloechl, Chemist

Appendix F
2025 Landfill Gas Annual Report

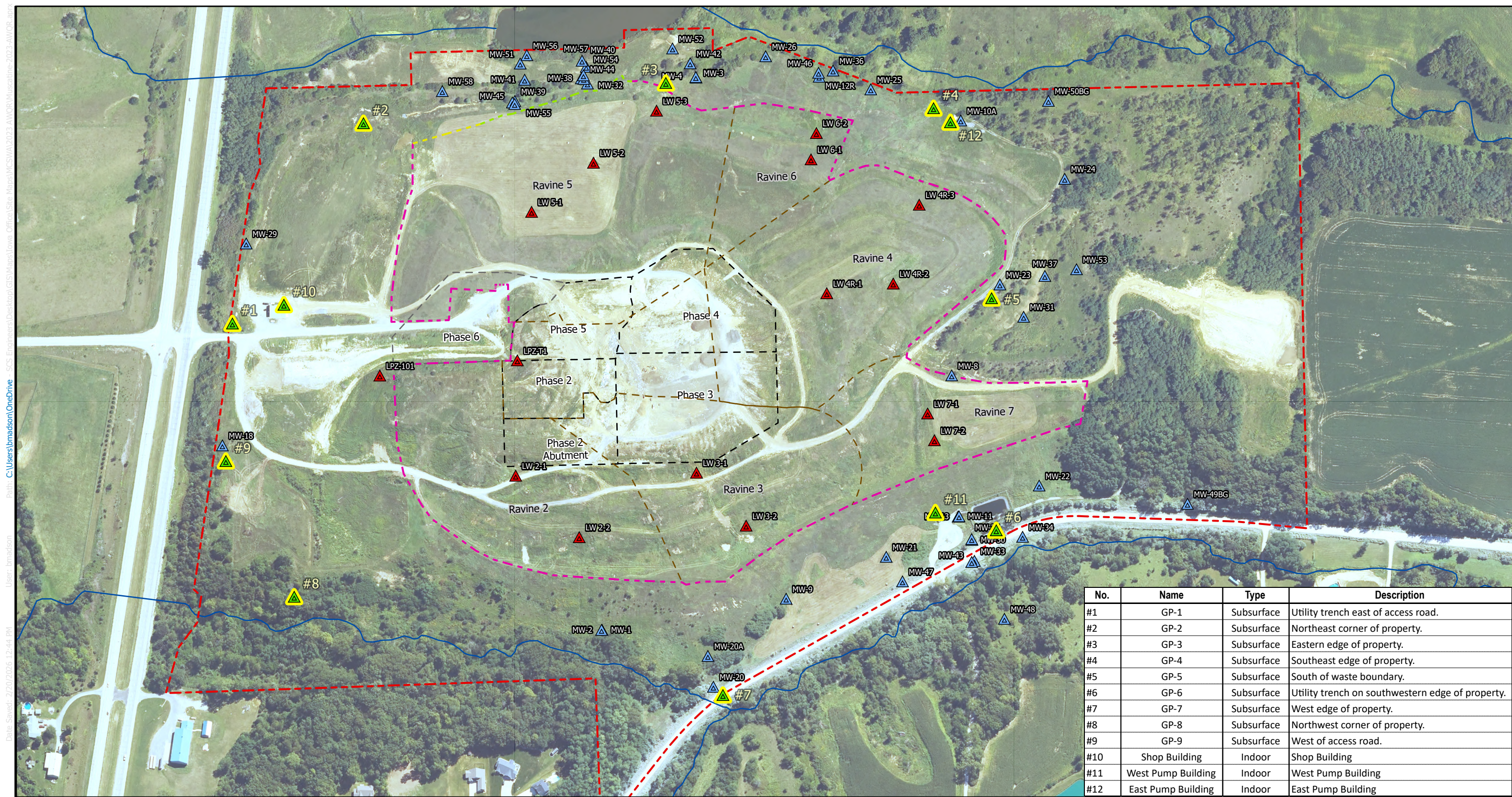
Gas Monitoring Summary
2025 Gas Monitoring Report
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P

Monitoring Points			Methane Results (% LEL)							
Name	Type	Description	1/13/2025	S (Y/N)	4/1/2025	S (Y/N)	7/10/2025	S (Y/N)	10/6/2025	S (Y/N)
GP-1	Subsurface	Utility trench east of access road.	0%	X	0%	X	0%	X	0%	X
GP-2	Subsurface	Northeast corner of property.	0%	X	0%	X	0%	X	0%	X
GP-3	Subsurface	Eastern edge of property.	0%	X	0%	X	0%	X	0%	X
GP-4	Subsurface	Southeast edge of property.	0%	X	0%	X	0%	X	0%	X
GP-5	Subsurface	South of waste boundary.	0%	X	0%	X	0%	X	0%	X
GP-6	Subsurface	Utility trench on southwestern edge of property.	0%	X	0%	X	0%	X	0%	X
GP-7	Subsurface	West edge of property.	0%	X	0%	X	0%	X	0%	X
GP-8	Subsurface	Northwest corner of property.	0%	X	0%	X	0%	X	0%	X
GP-9	Subsurface	West of access road.	0%	X	0%	X	0%	X	0%	X
Shop Building	Indoor	Shop Building	0%		0%		0%		0%	
West Pump Building	Indoor	West Pump Building	0%		0%		0%		0%	
East Pump Building	Indoor	East Pump Building	0%		0%		0%		0%	

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

1) Methane monitoring performed by Landfill staff.

2) Water levels were not measured during this reporting period in gas probes. It should be noted that the gas probes were installed with screens extending to approximately 5-10 feet below ground surface with the exception of GP-9 which was installed to 15 feet below ground surface. However, monitoring well MW-18, in the vicinity of GP-9, has consistently measured water levels lower than 15 feet below ground surface; therefore, it is unlikely that screens are submerged.

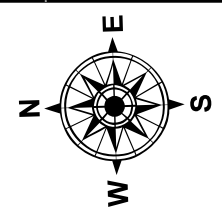


Methane Monitoring Network

Legend

- Methane Monitoring Point
- Monitoring Well
- Leachate Piezometer
- Approximate Existing Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Location of Future FML Cell Boundary
- Approximate Location of Closed Ravine Cell Boundary
- Approximate Location of Existing FML Cell Boundary
- Approximate Property Boundary
- Stream

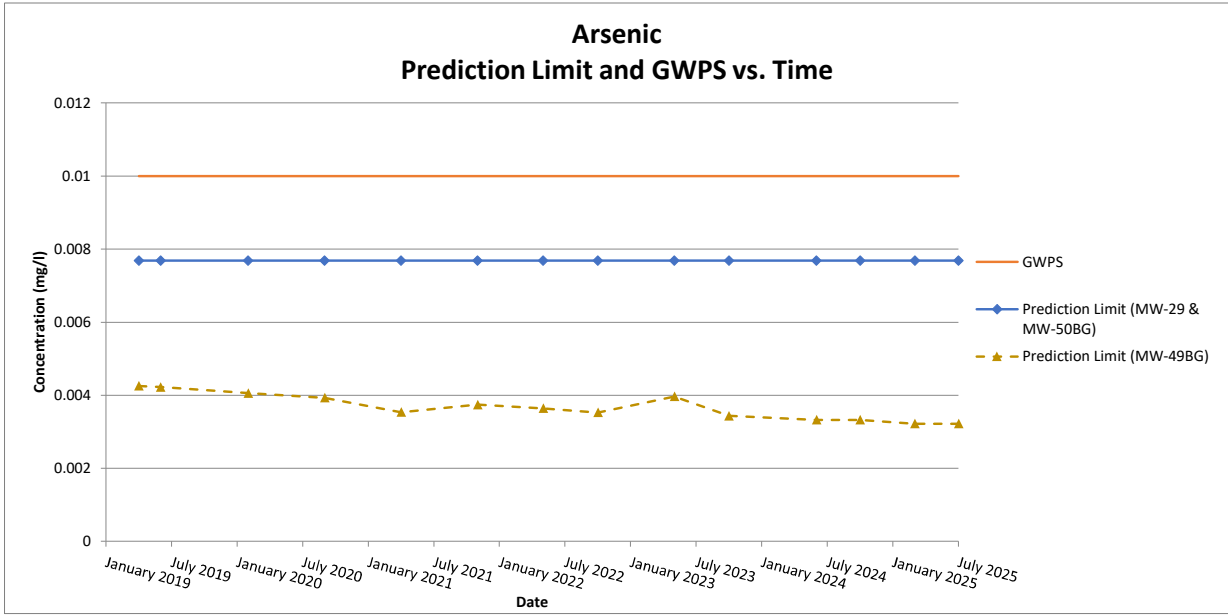
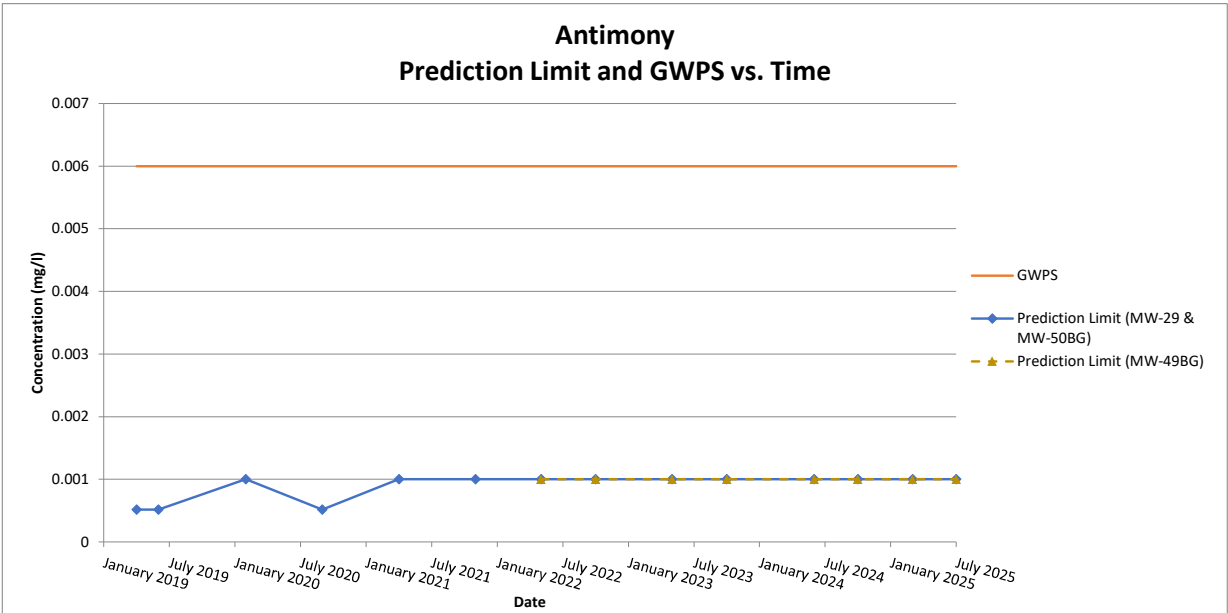
Muscatine County Sanitary
Landfill
Blue Grass, Iowa
Project No: 27223255.26
Drawing Date: September
2025

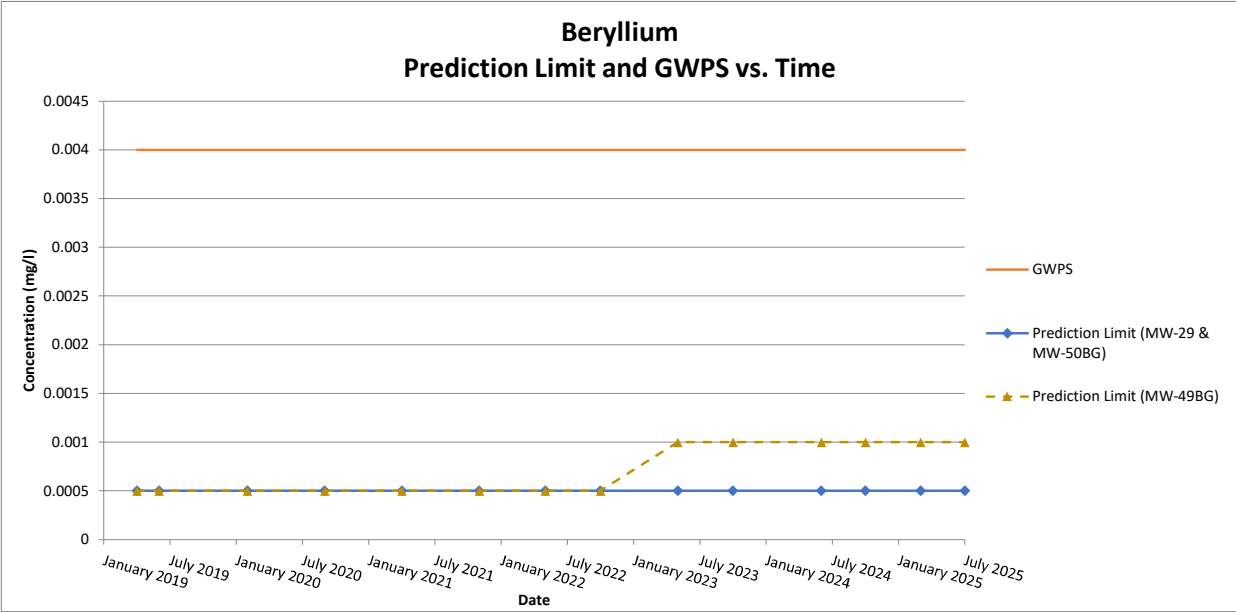
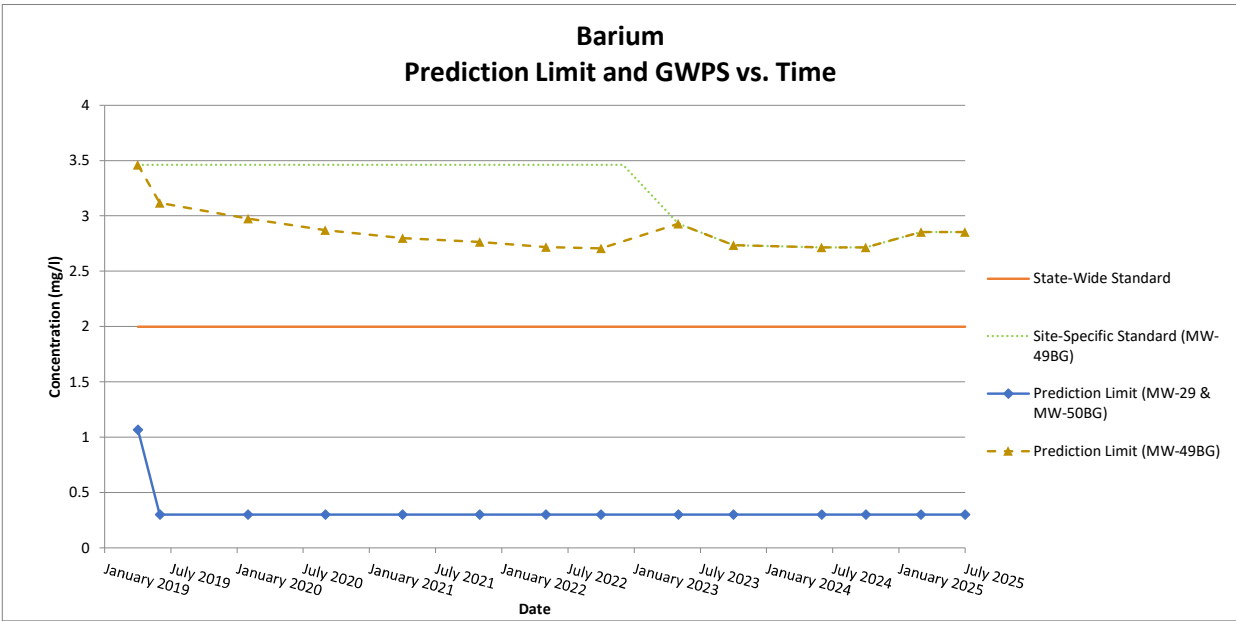


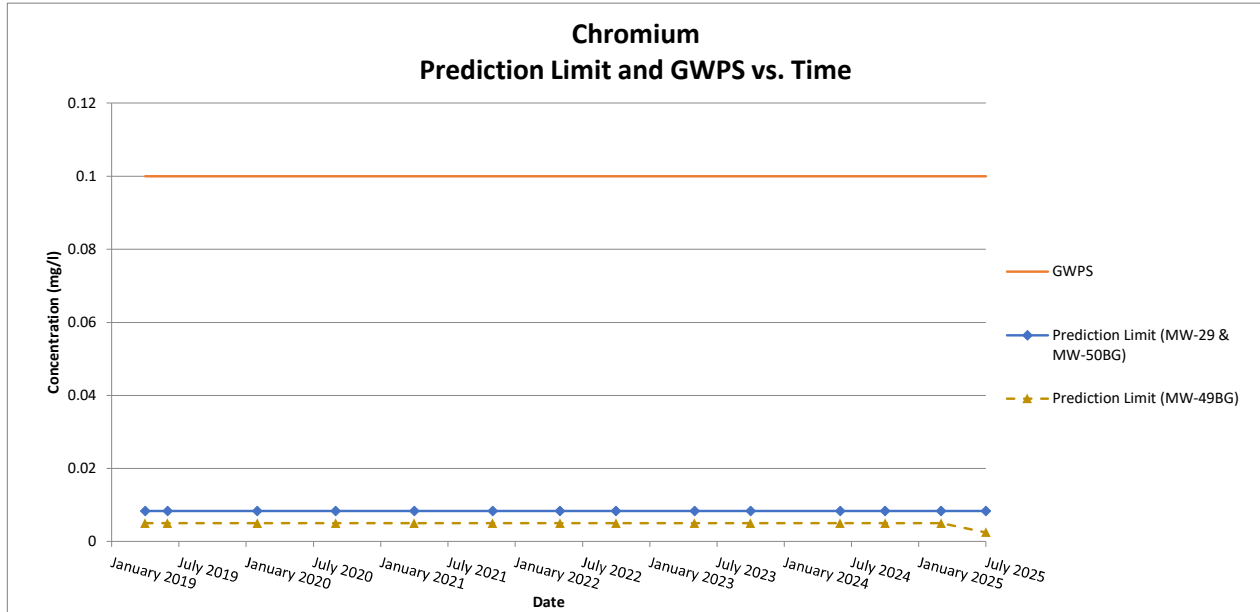
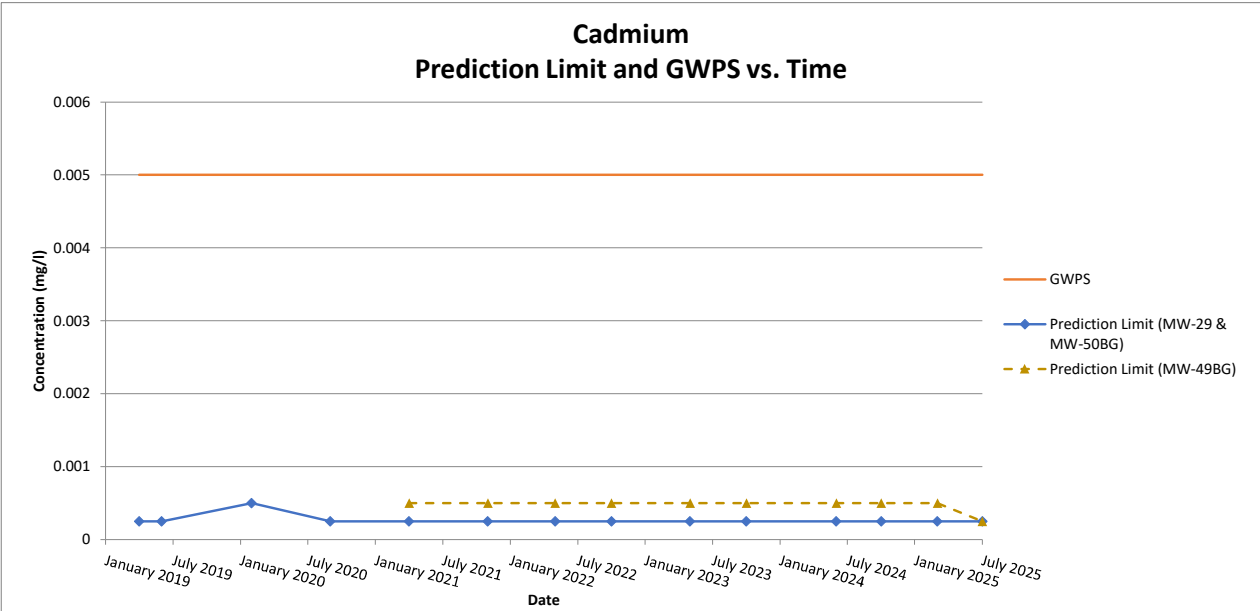
0 275 550 1,100
Feet

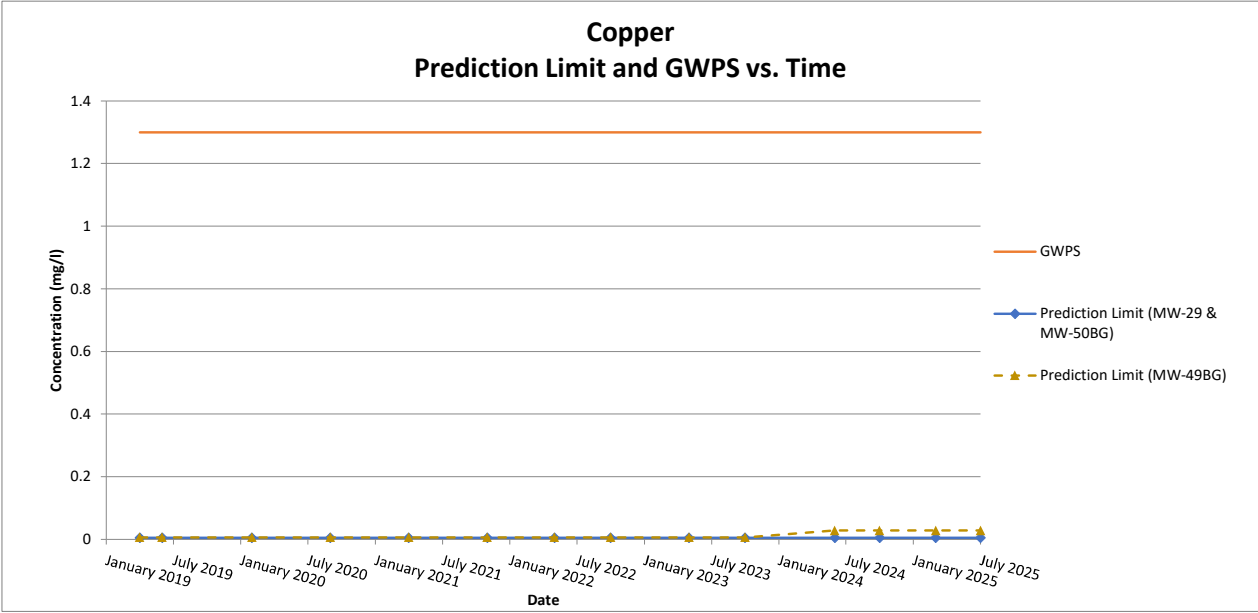
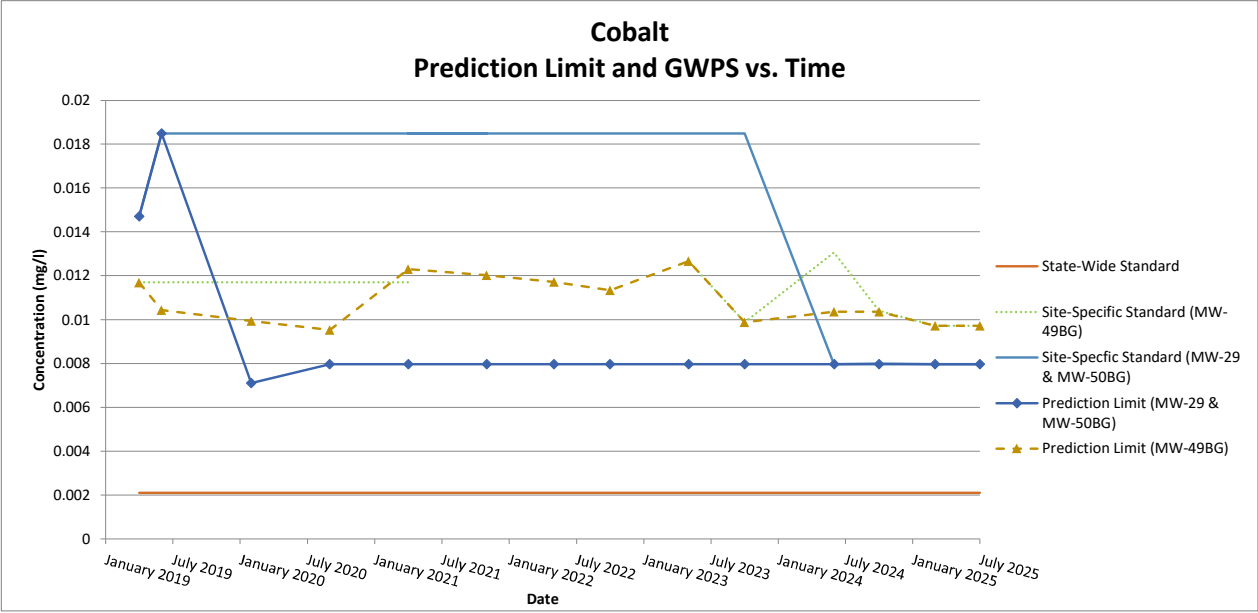
Figure 1

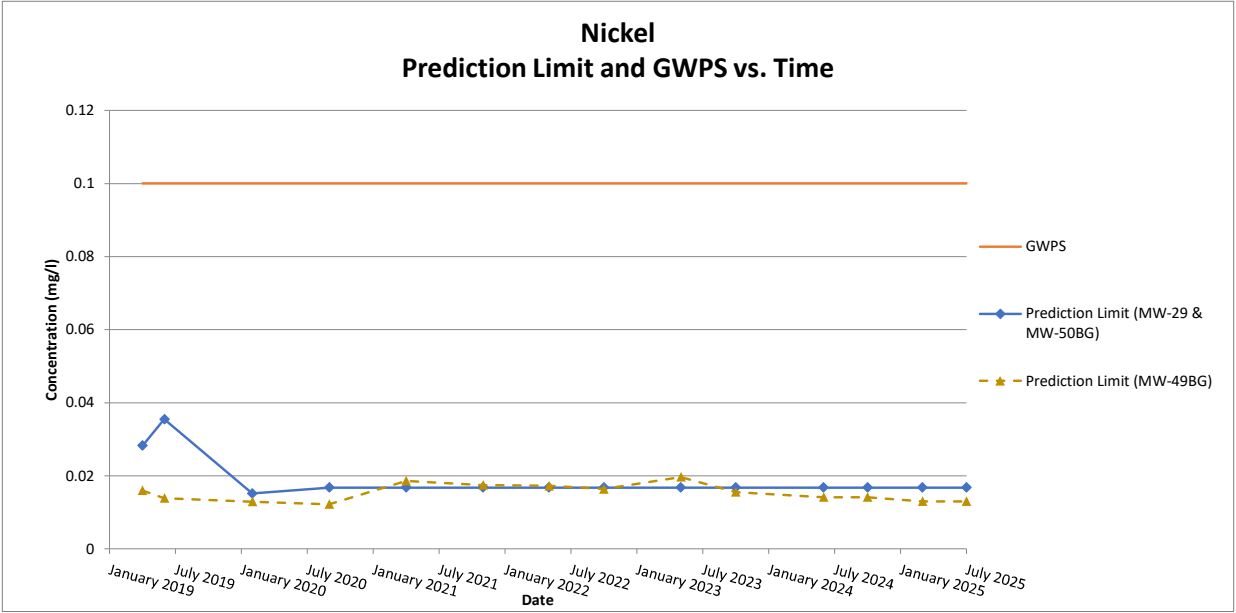
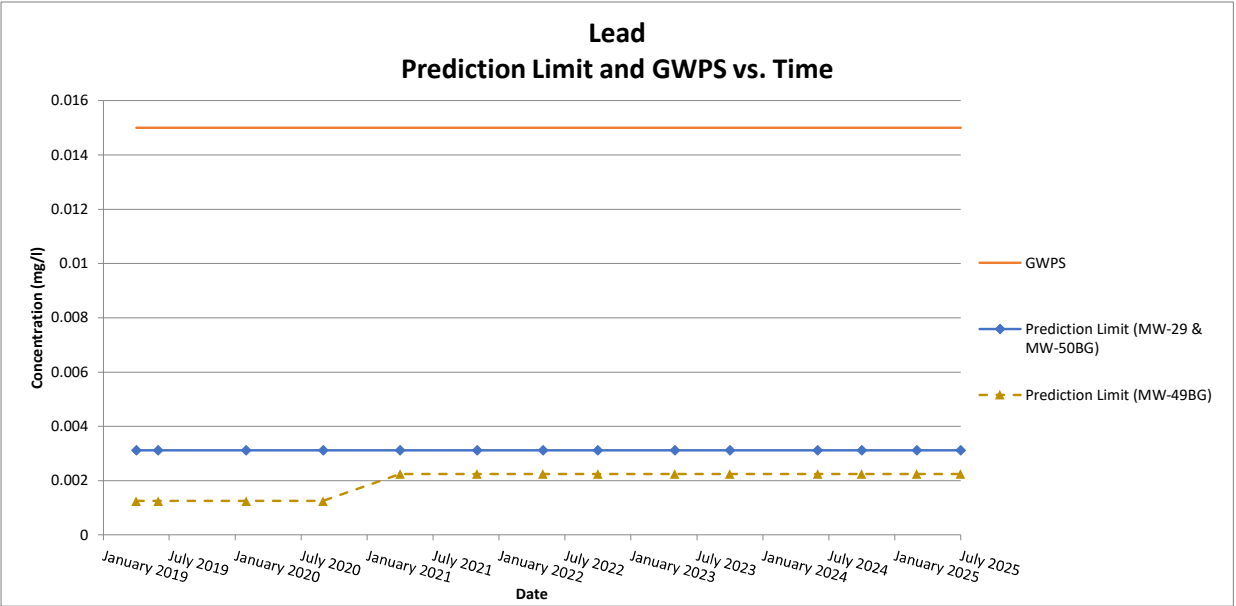
Appendix G
Standards History Graphs

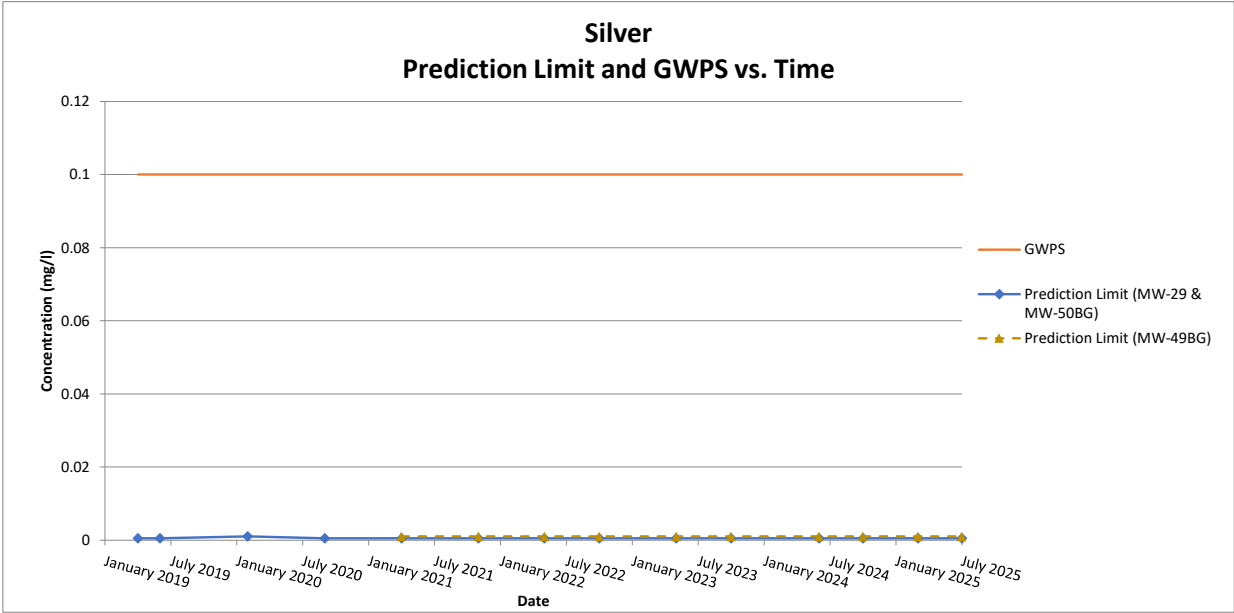
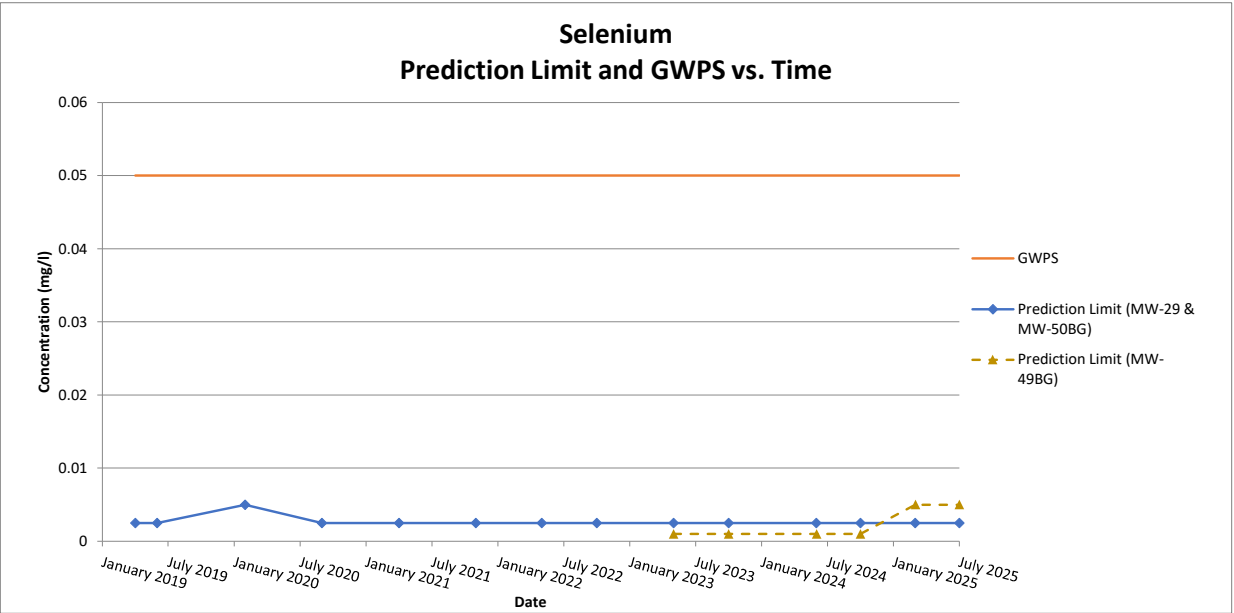


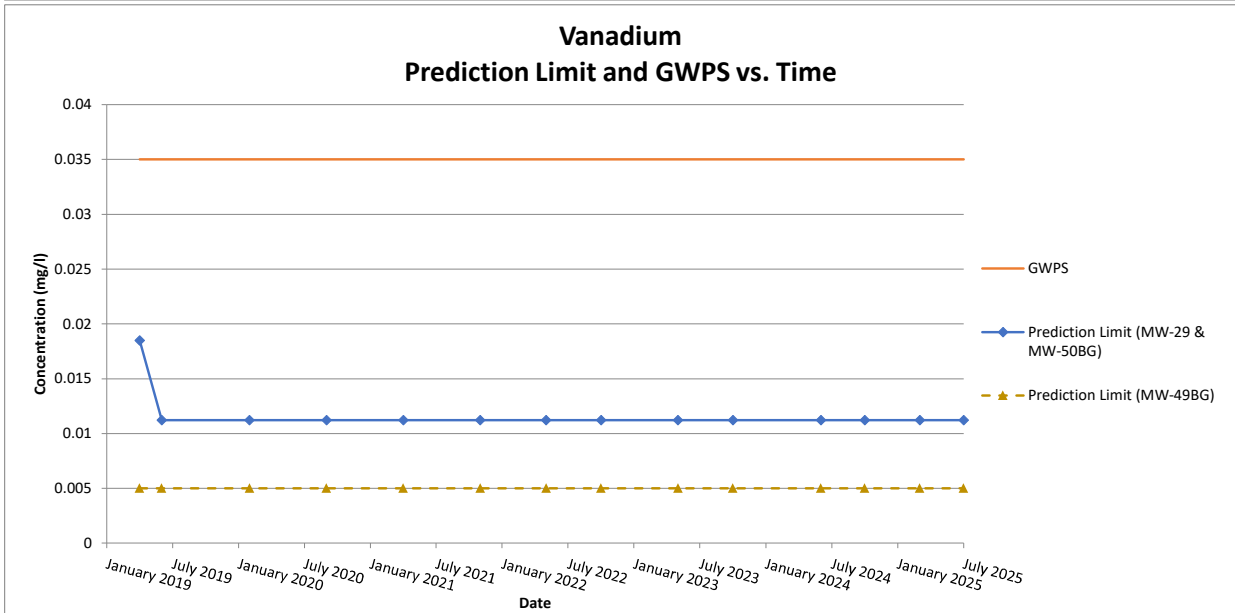
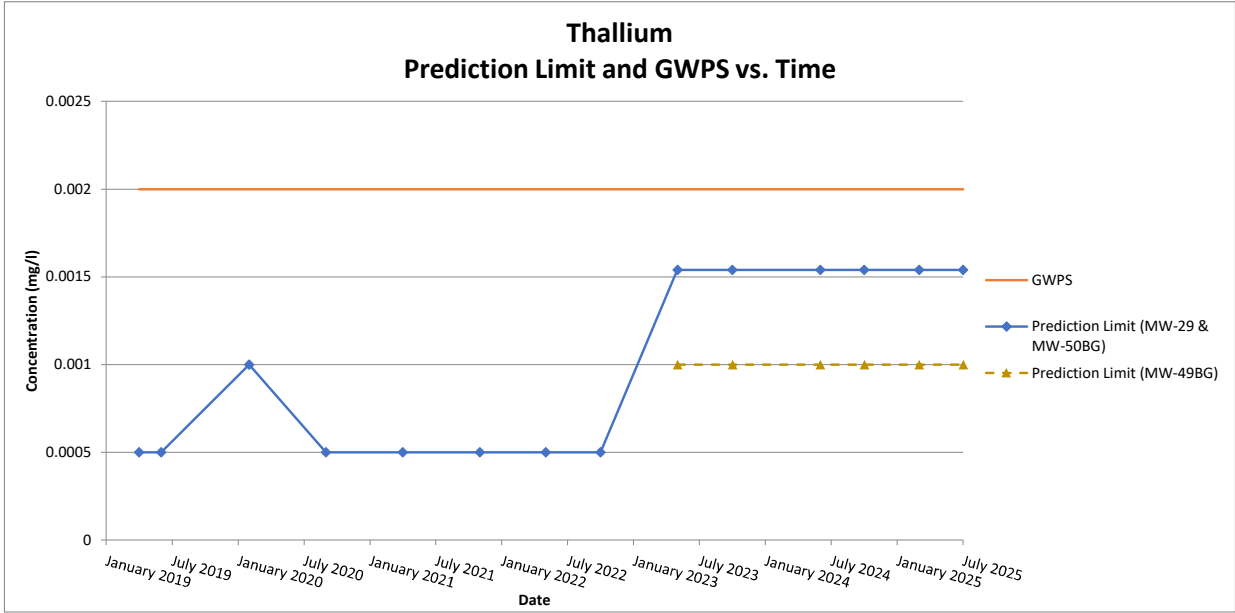












Zinc Prediction Limit and GWPS vs. Time

