January 30, 2025
File No. 27223271.25

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

Subject: 2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Dear Brian:

SCS Engineers, on behalf of Guthrie County Environmental Health, has completed the required groundwater monitoring and statistical evaluation for the closed Guthrie County Sanitary Landfill (Landfill) for the year 2024. 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 2024 Annual Water Quality Report.

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

Sincerely,

Nathan Ohrt
Senior Project Professional
SCS Engineers

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

NPO/TCB

Copies: Mr. Jotham Arber, Guthrie County Environmental Health

2024 Annual Water Quality Report

Guthrie County Sanitary Landfill
Guthrie Center, Iowa
Solid Waste Permit Number: 39-SDP-01-73C

Prepared for:

Guthrie County Environmental Health

SCS ENGINEERS

25223271.25 | January 2025

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CERTIFICATION

Prepared by: Nathan Ohrt Date: 1/30/2025

Typed: Nathan Ohrt

Reviewed by: Date: 1/30/2025

Typed: Timothy C. Buelow, P.E.

Certification page (PE or groundwater 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.

LICENSED PROFESSIONAL ENGINEER Timothy C. Buelow 14445 IOWA	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. Date: 1/30/2025 Timothy C. Buelow, P.E. License No. 14445 My license renewal date is December 31, 2025. Pages or sheets covered by this seal: All except Appendix B-1.

EXECUTIVE SUMMARY

ES.1 Period of Report Coverage

SCS Engineers (SCS), on behalf of Guthrie County Environmental Health, has completed the required groundwater sampling of the closed Guthrie County Sanitary Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results for the year 2024 consisting of the June 2024 annual sampling event. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-113.10(5 and 6), the Landfill closure permit and applicable amendments, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

ES.2 Report Priority

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

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

ES.3 Site Status and Applicable Rules

- Landfill Status: Closed.
- Types of waste accepted: None, landfill closed.
- Applicable IAC rules: The closure permit was issued in accordance with the 1989 IAC Chapter 103. Correspondence from the Iowa Department of Natural Resources (DNR) dated October 8, 2008 (Doc #32705) required compliance with IAC 567-113.2(5)"e" and subsequently the groundwater monitoring rules of IAC 567-113.10(6-9). A variance request approved on June 29, 2010 (Doc #58287) replaced the requirements of IAC 567-113.2(5), 113.2(5)"d," and 113.2(5)"e" with the requirements of 567-113.10. In addition, the June 29, 2010 variance, approved the preparation of the Monitoring Well Maintenance and Performance Reevaluation Plan in accordance with the current IAC 567-113.10(2)"f" (effective December 10, 2007).

ES.4 Comments

Two volatile organic compounds (VOCs) were detected in both assessment monitoring wells MW-3 and MW-12; none of the VOCs exceeded a groundwater protection standard (GWPS). Apart from the previously reported statistically significant levels (SSLs) above the GWPSs for arsenic and cobalt in monitoring well MW-16, no SSLs were measured during this reporting period. It should be noted that the lower confidence limit for arsenic in monitoring well MW-16 was below the GWPS during this reporting period.

No SSIs above background were measured in the detection monitoring wells MW-5 and MW-19 during this reporting period. An indicated SSI for nickel and an initial detection of chromium in monitoring well MW-14 are likely not representative due to the elevated total suspended solids (TSS) concentration, which was the highest TSS concentration measured in the monitoring well since 2017; therefore, the indicated SSIs are not confirmed. The inorganic data from the 2024 sampling event from monitoring well MW-14 is included herein but will be excluded in future statistical evaluation. There were no parameters detected with measured concentrations higher than the GWPSs.

In correspondence dated January 3, 2025 (Doc #111665), the DNR required that a new monitoring well be installed to replace the current background monitoring well MW-12 due to consistent VOC detections in MW-12. A plan and schedule for the new monitoring well will be prepared and submitted by April 1, 2025. The new well is anticipated to be installed before the 2025 sampling event.

As stated in the submittal of well installation documentation dated November 13, 2020, prepared by Evora Consulting (Doc #98927), monitoring well MW-20 was installed to bracket the area of groundwater impact near monitoring well MW-16. The Iowa DNR concurred with this objective in correspondence dated December 16, 2020 (Doc #99140). Monitoring results for monitoring well MW-20 were non-detect for arsenic and cobalt during this reporting period and had no quantified concentrations during the 2021, 2022, and 2023 reporting periods, indicating the extent of impact near MW-16 is defined.

1.0 ACRONYMS/ABBREVIATIONS

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

2.0 SITE BACKGROUND

2.1 SITE LOCATION

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

2.2 FACILITY

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

2.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

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

> *Regional surficial soils and sediments are either glacial or alluvial in origin. Glacial sediments are comprised of till, glaciofluvial, and loess deposits. The till and glaciofluvial deposits are of a pre-*[Wisconsinian] *glacial stage, originating some 2.5 million years before present while the loess was deposited some 15,000 years before present. Alluvial sediments are found on flood plains and along ancient and present-day stream channels.*
>
> *Till thickness within an approximate 4 mile radius of the site varies from 15 feet in the Seely Creek flood plain west of the landfill to 98 feet at the landfill site. Loess is typically 5 to 15 feet in thickness where present in this area.*
>
> *As determined from lithologic logs located within an approximate 4 mile radius of the site, the uppermost bedrock of the region is composed of sandstone and shale of the Cretaceous age Dakota Group. Bedrock elevations range from approximately 1050 to 1167 feet msl* [above mean sea level] *regionally. The landfill site is located on a bedrock high which has a typical elevation of 1160 feet msl.*
>
> *Two aquifers exist at the site. The first is the uppermost surficial water table aquifer which is encountered at depths ranging from 4 to 14 feet below ground surface and is generally controlled by the loess-till contact or the occurrence of a sand lens in the till. The second is the bedrock water table aquifer which is encountered in the Dakota sandstone. This aquifer is under unconfined to semi-confined conditions due to groundwater discharge to the South Raccoon River basin directly north of the site.*
>
> *No hydraulic connection between the overlying surficial aquifer and the lower bedrock aquifer exists. This is demonstrated by the unsaturated uppermost portion of the Dakota sandstone which directly underlies the glacial till. This unsaturated zone varies from 17 to 55 feet in thickness. Recharge of the Dakota aquifer likely occurs offsite to the west with a small local contribution from gravity drainage of the overlying glacial till. The dense nature of the till ensures that downward leakage is minimal. These observations are verified through examination of the water levels where wells are nested.*

3.0 FIGURES DISCUSSION

The following figures are attached.

3.1 FIGURE 1 – APPROVED MONITORING NETWORK

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

3.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured during the June 2024 groundwater sampling event is included in Figure 2. Figure 2 indicates a generally northwesterly groundwater flow direction. Figure 2 also includes leachate level data measured in June 2024 next to the leachate piezometers, although the leachate level data is not reflected in the groundwater contours. Based on the leachate elevations compared to the interpolated groundwater contours, it appears that leachate

mounding may be occurring. However, it is not known whether the leachate elevations measured in the leachate piezometers are the result of the intersection of perched leachate zones within the waste mass or a fully saturated waste mass in the vicinity of the monitoring point. It is also not known whether the leachate is in direct hydraulic communication with the water table or is perched above the water table within the waste mass.

3.3 FIGURE 3 – REPROTING PERIOD DETECTION SUMMARY

Figure 3 shows the range of measured concentrations by monitoring point for the monitoring wells for the 2024 reporting period. Further discussion of the detected constituents is included in Section 6.0 – Data Evaluation and Summary of this report.

4.0 STANDARDS HISTORY GRAPHS

Standards history graphs are included in Appendix F. No graphs were provided for antimony, beryllium, chromium, cobalt, selenium, silver, and thallium as these constituents have not been detected in background monitoring well MW-12. As stated in the 2022 AWQR, dated June 21, 2022 (Doc #103463), background monitoring well MW-12 was placed into the assessment monitoring program during the 2022 reporting period due to intermittent measured concentrations of tetrachloroethene. Due to the limited number of detections in monitoring well MW-12 and the similarity of measured concentrations at MW-12 to the HMSP monitoring wells in the detection monitoring program, the inorganic parameters measured in monitoring well MW-12 appear to be appropriate for background. However, as mentioned in Section ES.4 Comments of this report, a replacement background monitoring well will be installed. Standards history graphs for the following parameters are included.

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

The prediction limits were below the GWPSs for the included graphs.

5.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Landfill follows similar protocols as included in the HMSP. Data validation procedures were performed on analytical results for laboratory quality control samples and a quality assurance assessment of the data was conducted as the data were generated. The QA review procedure provided documentation of the accuracy and precision of the analytical data and confirmed that the analyses were sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasible with the laboratory method utilized. SCS then conducted QA/QC data validation of the produced data, which included a 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.

6.0 DATA EVALUATION AND SUMMARY

Detection and assessment/corrective action monitoring statistical evaluations in accordance with the requirements of IAC 567-113.10(5) and 113.10(6) were conducted for the groundwater analytical data collected during the June 2024 sampling event. The statistical evaluation for samples collected during the June sampling event is located in Appendix D (2024 Statistical Method and Output) of this report.

6.1 DATA EVALUATION

The groundwater monitoring network for the Landfill consists of groundwater monitoring wells located along the downgradient perimeters of the waste boundary. A map showing the measured concentrations by monitoring well (including the duplicate sample for MW-19) during the 2024 annual sampling event is included in Figure 3, Reporting Period Detection Summary.

Detection monitoring wells MW-5, MW-14, and MW-19 are sampled for Appendix I metals and TSS. Five metals were detected in monitoring well MW-14 and barium was only detected in monitoring wells MW-5 and MW-19. An indicated SSI for nickel and an initial detection of chromium in monitoring well MW-14 are likely not representative due to the elevated TSS concentration, which was the highest TSS concentration measured in the monitoring well since 2017; the indicated SSIs are not confirmed. The data from the 2024 sampling event from monitoring well MW-14 is included herein but will be excluded in future statistical evaluation. None of the detected metals exceeded a GWPS.

Assessment monitoring well MW-3 had detections of two metals and two VOCs while background/assessment monitoring well MW-12 had a detection of barium and two VOCs. Four metals were detected in corrective action monitoring well MW-16. No detected VOCs were above the associated GWPSs. It should be noted that arsenic and cobalt, the two constituents with SSL above the GWPSs in monitoring well MW-16, were both measured below the GWPS during this reporting period.

As shown in Figure 3, monitoring results for monitoring well MW-20, located downgradient of corrective action monitoring well MW-16 to delineate the area of impact near MW-16, were non-detect for arsenic and cobalt, indicating the extent of impact near MW-16 is defined.

6.2 LEACHATE LEVELS

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

Leachate head levels have remained generally consistent since 2009. The leachate thicknesses in each piezometer decreased from the August 2023 measurement to the June 2024 measurement, then increased in the August 2024 measurement. The exception to this was in leachate piezometer PZ-5, which was historically dry, and was measured at 1.8 feet in August 2024.

The leachate thicknesses in leachate piezometers PZ-1 and PZ-2 decreased to historical lows during the June 2024 measurement.

6.3 LANDFILL GAS MONITORING SUMMARY

Semi-annual monitoring of the landfill gas probes was performed in June and September by SCS staff; no methane was detected. No methane has been detected in the landfill gas probes installed in October 2020.

Quarterly methane monitoring of the facility structures was performed by facility staff. Facility staff reported that structure methane monitoring results from the first three quarters of 2024 were misplaced and are not available. No methane was detected during the fourth quarter of 2024.

A summary of gas monitoring results is included in Table 12. A map of the methane monitoring locations is included in Figure 4.

7.0 RECOMMENDATIONS

7.1 SITE IMPACT ON GROUNDWATER

Groundwater conditions at the Landfill are stable. Trace concentrations of VOCs are consistently detected at monitoring wells MW-3 and MW-12. The area of impact of SSLs arsenic and cobalt near monitoring well MW-16 is defined by non-detect concentrations at monitoring well MW-20. There were no GWPS exceedances measured during this reporting period.

7.2 PROPOSED MONITORING

Monitoring is proposed to continue in 2025 as summarized in the attached Table 2.

7.3 PROPOSED MONITORING WELL CHANGES

In correspondence dated January 3, 2025 (Doc #111665), the DNR required that a new monitoring well be installed to replace current background monitoring well MW-12 due to consistent VOC detections in MW-12. A plan and schedule for the new monitoring well will be prepared and submitted by April 1, 2025. The new well is anticipated to be installed before the 2025 sampling event.

Tables

Table 1
Monitoring Program Summary
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
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Monitoring Well	Formation[1]	Current Monitoring Program	Change for next sampling event	Constituents with SSIs during the 2024 Reporting Period	Constituents with SSLs	Total Number of Samples in Each Monitoring Program since March 2010		
						Detection	Assessment	Corrective Action
HMSP Monitoring Wells								
MW-12	Sandy till	Background[2]/Assessment	None	Tetrachloroethene, cis-1,2-Dichloroethene	None		23	
MW-3	Till	Assessment	None	Chlorobenzene, cis-1,2-Dichloroethene	None		23	
MW-5	Till	Detection	None	None	Not applicable	23		
MW-14	Sandy till	Detection	None	Nickel*	Not applicable	23		
MW-16	Sandy till	Corrective Action	None	Arsenic	Arsenic, Cobalt			23
MW-19	Sandy till	Detection	None	None	Not applicable	23		
Other Monitoring Wells								
MW-20	Till	Impact Delineation for MW-16	None					

Notes:
(1) Obtained from 1991 *Hydrogeologic Investigation and Monitoring System Plan* (Doc #34517).
(2) Inorganic data for the background for the detection monitoring program is from monitoring well MW-12.
* - Not confirmed. Inorganic results appear to be not representative due to elevated total suspended solids concentration.
SSI = Statistically Significant Increase above background.
SSL = Statistically Significant Level above a groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Monitoring Well	Recent Sampling Dates and Constituents	Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	6/3/2024	2025 Annual Event	2026 Annual Event	Previously Collected	Next Event
MW-12	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	4/2013, 4/2014, 4/2022	2027
New background well (MW-21)*	Not installed	Appendix I, TSS	Appendix I, TSS	-	Not applicable
MW-3	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	3/2011, 3/2012, 4/2017, 4/2022	2027
MW-5	Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-14	Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-16	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	3/2011, 3/2012, 4/2017, 4/2022	2027
MW-19	Appendix I metals, TSS	Appendix I metals, TSS	Appendix I metals, TSS	-	Not applicable
MW-20	Arsenic, Cobalt, TSS	Arsenic, Cobalt, TSS	Arsenic, Cobalt, TSS	-	Not applicable

Notes:
TSS - Total Suspended Solids.
* First year sampling for the new monitoring well will be performed as directed by the DNR.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-35C

Compliance with:	2022	2023	2024	2025	2026
567 IAC 113.10(2)"f"(1) high and low water levels	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)	-	Completed	-	Scheduled	-
Waste separation from groundwater 113.6(2)i	NA	NA	NA	Scheduled	NA

Comments: None.

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

Table 4
Monitoring Well Performance and Maintenance Summary
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Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements 6/3/2024	Maximum Depth Discrepancy (ft)
MW-12	1279.38	1259.60	29.9	Groundwater Level (ft)	14.13	1.9
				Groundwater Elevation (Ft MSL)	1265.25	
				Measured Well Depth (ft)	28.0	
				Submerged screen	Y	
MW-3	1244.59	1232.10	21.5	Groundwater Level (ft)	11.23	1.0
				Groundwater Elevation (Ft MSL)	1233.36	
				Measured Well Depth (ft)	20.5	
				Submerged screen	Y	
MW-5	1217.54	1195.36	32.2	Groundwater Level (ft)	6.98	0.2
				Groundwater Elevation (Ft MSL)	1210.56	
				Measured Well Depth (ft)	32.0	
				Submerged screen	Y	
MW-14	1231.39	1197.50	43.9	Groundwater Level (ft)	28.78	1.1
				Groundwater Elevation (Ft MSL)	1202.61	
				Measured Well Depth (ft)	42.8	
				Submerged screen	Y	
MW-16	1198.82	1180.80	28.0	Groundwater Level (ft)	20.68	0.4
				Groundwater Elevation (Ft MSL)	1178.14	
				Measured Well Depth (ft)	27.6	
				Submerged screen	N	
MW-19	1207.99	1195.32	27.7	Groundwater Level (ft)	10.78	0.1
				Groundwater Elevation (Ft MSL)	1197.21	
				Measured Well Depth (ft)	27.6	
				Submerged screen	Y	

Comments:

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

Table 5
Background and GWPS Summary
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Interwell Background/GWPS (MW-12)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Inorganics										
Antimony (Sb)	mg/L	23	0	0.001 (1/2 RL)	0.001 (1/2 RL)	0.00100	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	23	2	0.001 (1/2 RL)	0.007	0.00215	0.007	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	23	23	0.264	1.17	0.65861	1.245	PL (P)	2	MCL
Beryllium (Be)	mg/L	23	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00174	< 0.004	DQR	0.004	MCL
Cadmium (Cd)	mg/L	24	1	0.00005 (1/2 RL)	0.0011	0.00038	0.0011	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	23	0	0.0025 (1/2 RL)	0.01 (1/2 RL)	0.00409	< 0.02	DQR	0.1	MCL
Cobalt (Co)	mg/L	23	0	0.0002 (1/2 RL)	0.002 (1/2 RL)	0.00102	< 0.004	DQR	0.0021	SWS
Copper (Cu)	mg/L	23	4	0.00184*	0.0057	0.00234	0.0057	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	23	1	0.00025 (1/2 RL)	0.0047	0.00181	0.0047	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	23	6	0.002 (1/2 RL)	0.0098	0.00338	0.0098	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	23	0	0.002 (1/2 RL)	0.0025 (1/2 RL)	0.00209	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	23	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00174	< 0.004	DQR	0.1	SWS
Thallium (Tl)	mg/L	23	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00152	< 0.004	DQR	0.002	MCL
Vanadium (V)	mg/L	23	1	0.0025 (1/2 RL)	0.0136	0.00863	0.0136	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	23	6	0.004 (1/2 RL)	0.0405	0.01067	0.0405	PL (NP)	2	SWS

Notes:

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

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

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

4) Changes to the previous statistical method during reporting period: There were no changes to the statistical method during the 2024 reporting period.

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

6) Justification for data exclusion: Confirmed outliers are excluded from statistical consideration and noted in the Summary of Groundwater Chemistry.

Acronyms/Abbreviations:

GWPS = Groundwater Protection Standard

RL = Reporting Limit

DQR = Double Quantification Rule

SSS = Site-Specific GWPS

SWS = Statewide Standard

PL = Prediction Limit

NP = Non-Parametric

P = Parametric

MCL = EPA Maximum Contaminant Level

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2024 Annual Water Quality Report
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Well	Constituent	Units	Most Recent Result	Background Standard
MW-14	Nickel*	mg/L	0.0179	0.0098
MW-16	Arsenic	mg/L	0.00813	0.007

Notes:

1) This table represents constituent/well pairs with indicated SSIs during the 2024 reporting period that did not have indicated SSIs during the 2023 reporting period.

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

Comments:

1) Problems with the current detection network: None.

2) Schedule to implement remedies: None.

3) Alternative constituent or sample frequency changes: None.

4) Significant changes to calculated prediction limits: None.

5) Resampling strategy: Retesting is performed on a 1-of-2 retesting scheme.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-3	Chlorobenzene	µg/L	3.03	< 1	1.146	100	3/26/2012	NA	3/26/2012
	cis-1,2-Dichloroethene	µg/L	6.21	< 1	2.284	70	3/29/2010	NA	3/26/2012
MW-5	None								
MW-12	cis-1,2-Dichloroethene	µg/L	2.51	< 1	0.5	70	4/1/2014	NA	3/26/2012
	Tetrachloroethene	µg/L	1.75	< 1	1.014	5	3/26/2012	NA	3/26/2012
MW-14	Nickel*	mg/L	0.0179	0.0098	Detection	0.1	6/3/2024	NA	3/26/2012
MW-16	Arsenic	mg/L	0.00813	0.007	0.005283	0.01	6/3/2024	NA	3/26/2012
MW-19	None								

Notes:

1) Shaded rows denote constituent/well pair with SSI indicated in 2024 that was not indicated in 2023. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2023 and 2024 reporting periods.

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

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

Comments:

1) Problems with the current assessment network: None.

2) Proposed remedies: None.

3) Alternative constituent or sample frequency changes: None.

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

5) Property owner notifications: Not applicable.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS		
							1st Year	2nd Year	3rd Year
MW-16	Arsenic	mg/L	0.00813	0.02653	0.01	2011	NA	NA	NA
	Cobalt	mg/L	0.000521	0.03054	0.0021	2011	NA	NA	NA

Notes:

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

2) NA indicates Not Applicable. The constituent-monitoring point dataset has not satisfied the statistical requirements of IAC 567-113.10(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.

Table 9
Summary of Groundwater Chemistry
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

The Summary of Groundwater Chemistry is located in Appendix C.

Table 10
Historical SSI and SSL
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Key

Indicated SSI

SSL

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

Notes:

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

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

Table 11
Corrective Action Trend Analysis
2024 Annual Water Quality Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Well	Current SSL	Trend	Calculated S	Critical S	Total N	Projected Date to Completion
MW-16	Arsenic	Decreasing	-16	-21	8	2029
	Cobalt	Decreasing	-8	21	8	2034

Notes:

N: Number of Samples

S: Mann-Kendall Statistic

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

Table 12
Gas Monitoring Summary
2024 Gas Monitoring Report
Guthrie County Sanitary Landfill
Permit No. 39-SDP-01-73C

Monitoring Points			Monitoring Results (%LEL)					
Name	Type	Description	6/3/2024		9/10/2024		10/11/2024	
#1. Old Shop (blue)	Indoor	Inside Blue Building					0	
#2. New Shop (brown)	Indoor	Inside Brown Building					0	
#3. Office	Indoor	Inside Office					0	
#4. Transfer Station	Indoor	Inside Transfer Station					0	
#5. HHM Building	Indoor	Inside HHM building					0	
#6. Recycling Building	Indoor	Inside Recycling Building					0	
#7. LFGW-1	Gas Probe	Vadose zone near MW-12	0	N	0	N		
#8. LFGW-2	Gas Probe	Vadose zone near MW-3	0	Y	0	N		
#9. LFGW-3	Gas Probe	Vadose zone near MW-19	0	N	0	N		
#10. LFGW-4	Gas Probe	Vadose zone west of waste mass	0	N	0	N		

Notes:

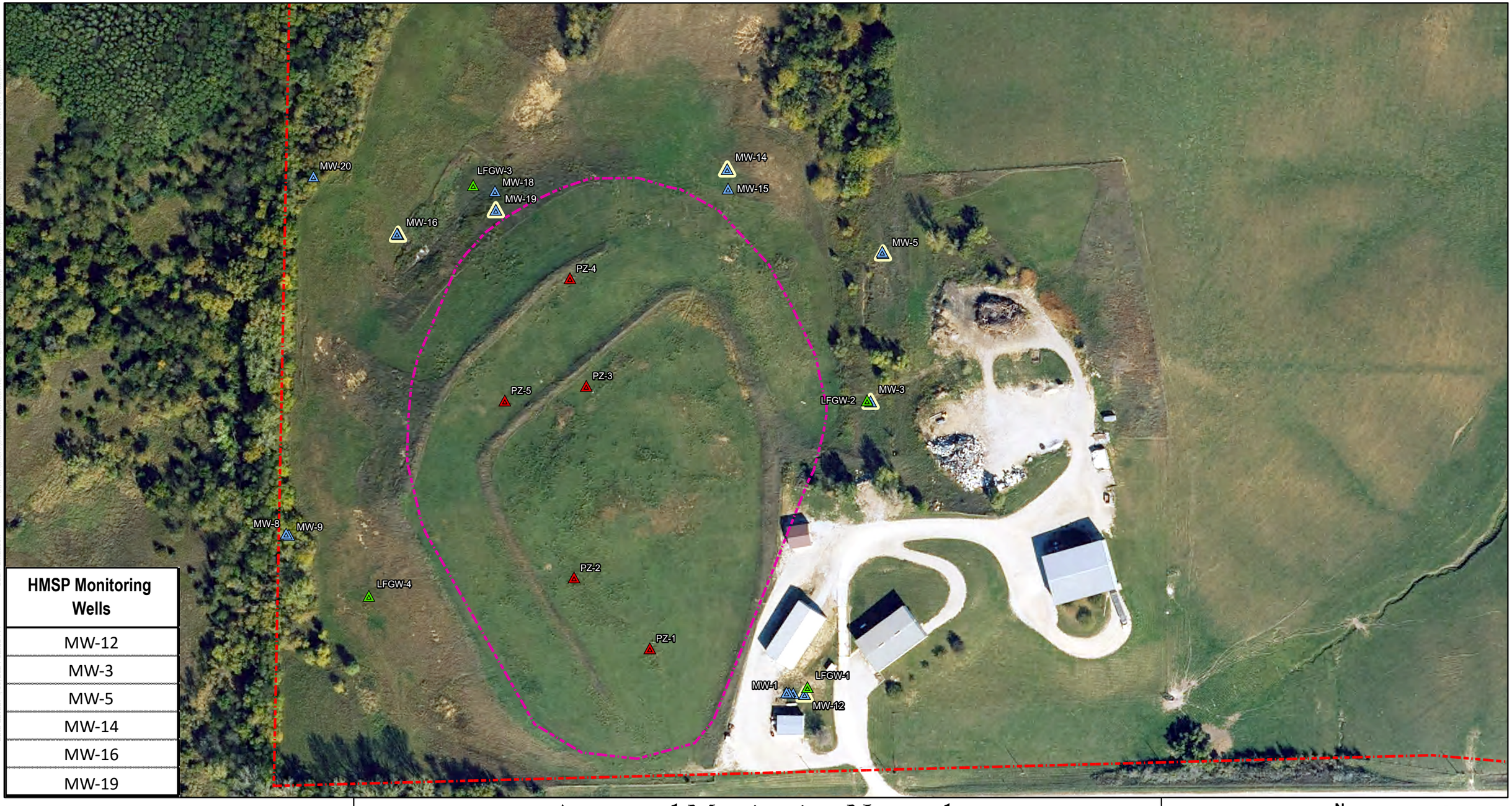
S(Y/N) - Was screen submerged, yes or no or blank is non-applicable

Structure monitoring is performed by facility staff. Monitoring results for the first three quarters of 2024 were not available, reportedly misplaced by facility staff.

Gas probe monitoring is performed by SCS.

A Methane Monitoring Map is included in the Figures section of this report.

Figures



HMSP Monitoring Wells
MW-12
MW-3
MW-5
MW-14
MW-16
MW-19

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environmental consultants and contractors

Approved Monitoring Network

Legend

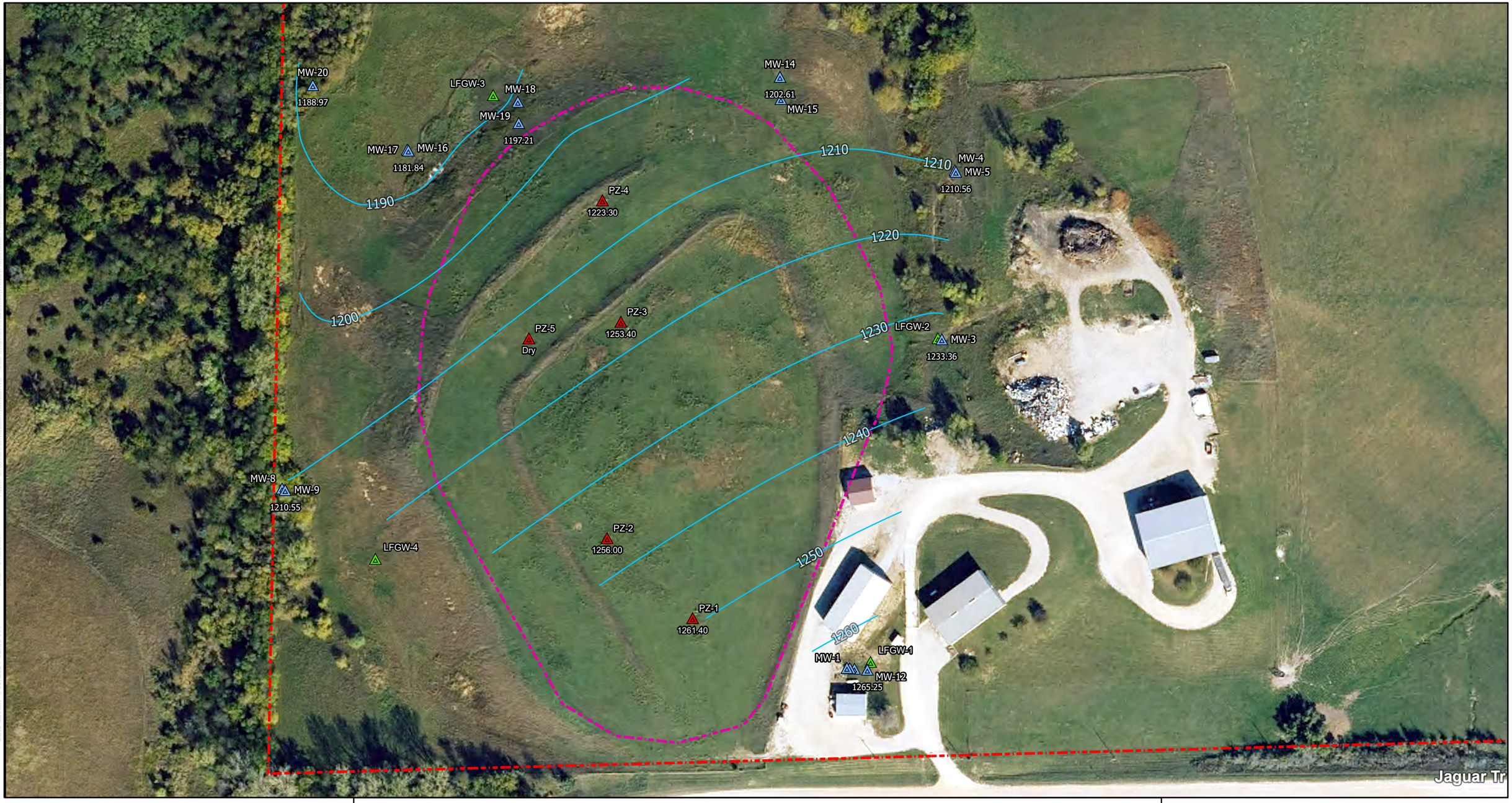
- Approximate Monitoring Well Location
- Approximate HMSP Monitoring Well Location
- Approximate Methane Monitoring Point Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.25
Drawing Date: January 2025

Figure 1

N W E S

0 75 150 300 450
Feet



Groundwater Contours

Legend

- Approximate Groundwater Contours Based on Elevations Taken on June 3, 2024
- Approximate Methane Monitoring Point Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

*Leachate levels measured by Landfill staff in June 2024 were not used in groundwater contour development.

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.25
Drawing Date: January 2025

N
W E
S

0 65 130 260 390
Feet

Figure 2

SCS ENGINEERS
environmental consultants and contractors

MW-20	
Constituent (units)	**Concentration**
Arsenic (mg/L)	<0.002 (0/1)
Cobalt (mg/L)	<0.0005 (0/1)
Total Suspended Solids (mg/L)	13.8 (1/1)

MW-19	
Constituent (units)	**Concentration**
Barium (mg/L)	0.0854 - 0.0855 (2/2)
Total Suspended Solids (mg/L)	6.75 - 9.12 (2/2)

MW-14	
Constituent (units)	**Concentration**
Barium (mg/L)	0.0253 (1/1)
Cadmium (mg/L)	**0.000521 (1/1)**
Chromium (mg/L)	**0.00878 (1/1)**
Cobalt (mg/L)	**0.000767 (1/1)**
Nickel (mg/L)	**0.0179 (1/1)**
Total Suspended Solids (mg/L)	45.3 (1/1)

MW-5	
Constituent (units)	**Concentration**
Barium (mg/L)	0.0662 (1/1)
Total Suspended Solids (mg/L)	< 1.88 (0/1)

MW-16	
Constituent (units)	**Concentration**
Arsenic (mg/L)	**0.00813 (1/1)**
Barium (mg/L)	0.147 (1/1)
Cobalt (mg/L)	0.000521 (1/1)
Nickel (mg/L)	0.00594 (1/1)
Total Suspended Solids (mg/L)	6.67 (1/1)

MW-3	
Constituent (units)	**Concentration**
Barium (mg/L)	0.734 (1/1)
Nickel (mg/L)	0.00509 (1/1)
Chlorobenzene (ug/L)	**3.03 (1/1)**
cis-1,2-Dichloroethene (ug/L)	**6.21 (1/1)**
Total Suspended Solids (mg/L)	58.2 (1/1)

MW-12	
Constituent (units)	**Concentration**
Barium (mg/L)	**1.01 (1/1)**
cis-1,2-Dichloroethene (ug/L)	2.51 (1/1)
Tetrachloroethene (ug/L)	**1.75 (1/1)**
Total Suspended Solids (mg/L)	< 1.88 (0/1)

MW-20, MW-19, MW-14, LFGW-3, MW-18, MW-15, MW-17, MW-16, MW-4, MW-5, PZ-4, PZ-5, PZ-3, LFGW-2, MW-3, MW-8, MW-9, PZ-2, LFGW-4, PZ-1, MW-1, LFGW-1, MW-12

Note: Only arsenic, cobalt, and TSS were sampled for in monitoring well MW-20.

Constituent	Monitoring Point	Maximum Concentration
Arsenic (mg/L)	MW-16	0.00813
Barium (mg/L)	MW-12	1.01
Cadmium (mg/L)	MW-14	0.000521
Chromium (mg/L)	MW-14	0.00878
Cobalt (mg/L)	MW-14	0.000767
Nickel (mg/L)	MW-14	0.0179
Chlorobenzene (ug/L)	MW-3	3.03
cis-1,2-Dichloroethene (ug/L)	MW-3	6.21
Tetrachloroethene (ug/L)	MW-12	1.75

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environmental consultants and contractors

Reporting Period Detection Summary

Legend

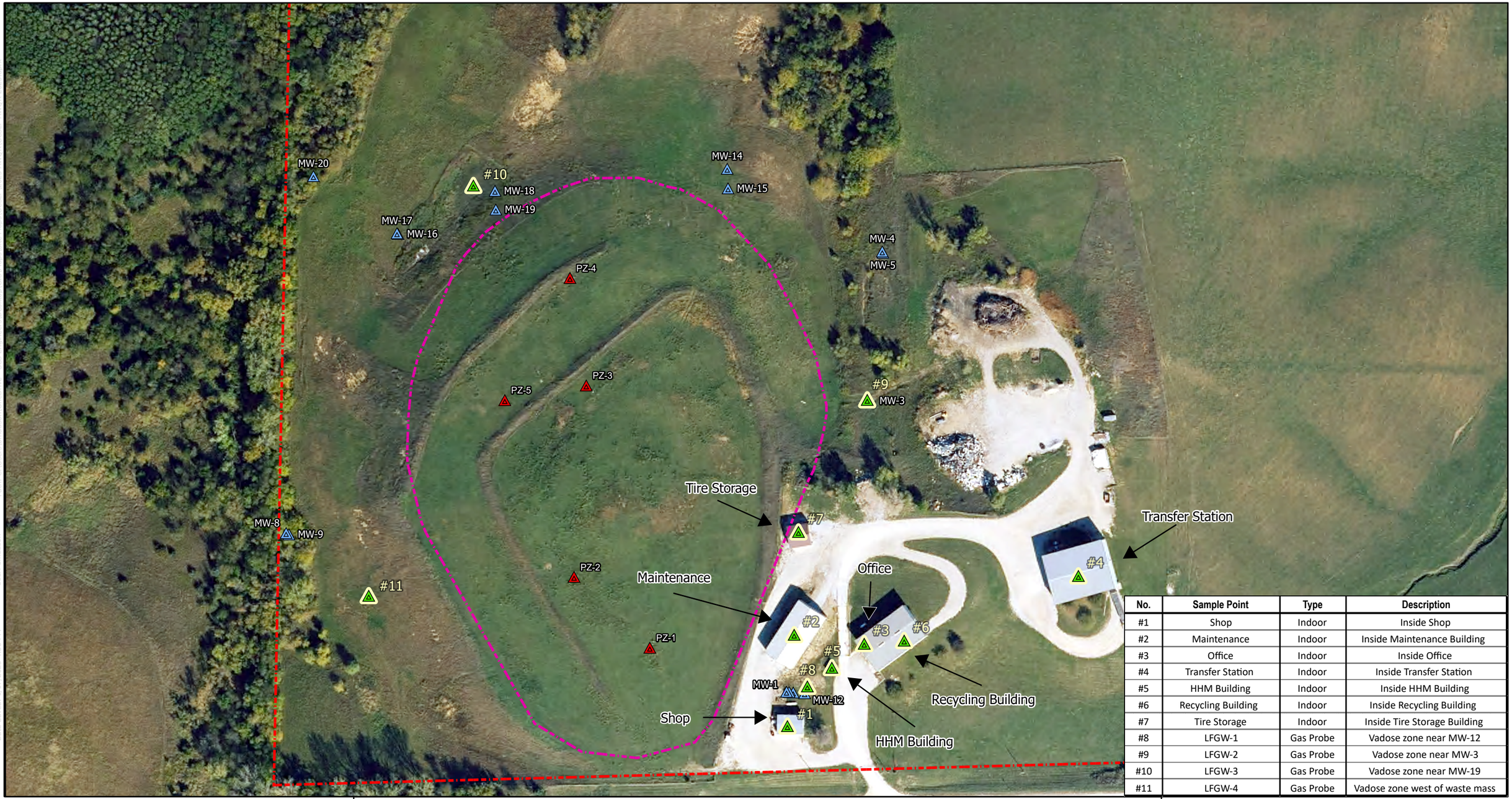
- Approximate Monitoring Well Location
- Approximate Methane Monitoring Point Location
- Approximate Leachate Piezometer Location
- Approximate Waste Boundary
- Approximate Property Boundary

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.25
Drawing Date: January 2025

Figure 3

N W E S

0 75 150 300 450 Feet



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

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Methane Monitoring Network

Legend

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

Guthrie County
Sanitary Landfill
Guthrie Center, Iowa
Project No: 27223271.25
Drawing Date: January 2025

Figure 4

N
W E
S

0 75 150 300 450 Feet

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	11.23
Initial Groundwater Elevation (ft-amsl):	1233.36
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
1:44 PM	Purging start time.						
1:47 PM	14.1	0.3	1323.1	6.64	-65.0	65.4	
1:50 PM	14.1	<0.1	1295.1	6.63	-38.2	18.0	
1:53 PM	14.1	<0.1	1251.6	6.63	-19.3	14.2	
1:56 PM	14.1	<0.1	1240.4	6.63	-6.5	5.4	
	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: Slightly Cloudy Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	32.0
Initial Static Water Level (feet):	6.98
Initial Groundwater Elevation (ft-amsl):	1210.56
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
2:51 PM	Purging start time.						
2:54 PM	13.9	1.8	1188.1	6.91	47.2	4.7	
2:57 PM	13.9	1.5	1179.3	6.90	53.2	14.3	
3:00 PM	13.6	1.4	1178.5	6.89	56.1	26.0	
3:03 PM	13.6	1.4	1179.0	6.89	57.9	14.9	
	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:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**6/3/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	27.9
Initial Static Water Level (feet):	14.13
Initial Groundwater Elevation (ft-amsl):	1265.25
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
1:11 PM	Purging start time.						
1:14 PM	14.6	1.5	1122.7	6.50	133.4	5.0	
1:17 PM	15.8	1.3	1130.8	6.55	132.0	8.3	
1:20 PM	15.6	1.2	1126.4	6.58	131.2	9.5	
1:23 PM	15.3	1.1	1129.6	6.58	130.9	9.9	
	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:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	42.8
Initial Static Water Level (feet):	28.78
Initial Groundwater Elevation (ft-amsl):	1202.61
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
2:22 PM	Purging start time.						
2:25 PM	16.5	0.4	2629.4	6.65	-35.8	NA	
2:28 PM	15.0	0.1	2639.9	6.65	-17.8	59.0	
2:31 PM	18.8	7.8	16.6	6.85	-13.9	74.2	
2:34 PM	15.3	0.7	2627.6	6.68	-3.6	48.5	
	2:31 PM measurements are anomalous.						
	NA -- Not available. The meter did not record the measurement properly.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	233.33

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

Additional Comments:	Color: Slightly cloudy Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-16**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.0
Initial Static Water Level (feet):	16.98
Initial Groundwater Elevation (ft-amsl):	1181.84
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
4:04 PM	Purging start time.						
4:07 PM	14.9	0.6	2348.6	6.27	-86.6	3.2	
4:10 PM	15.2	<0.1	2327.3	6.31	-91.9	4.0	
4:13 PM	14.8	<0.1	2112.0	6.34	-88.5	9.2	
4:16 PM	15.0	<0.1	1735.3	6.35	-80.7	9.1	
4:19 PM	15.0	0.3	1421.5	6.36	-68.9	11.1	
4:22 PM	14.9	1.3	1283.6	6.35	-54.1	16.7	
4:25 PM	15.3	3.1	1215.7	6.35	-44.8	21.3	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.5
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	24:00
Average Purge Rate (mL/min):	145.83

D. WELL MAINTENANCE

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

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-19**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.6
Initial Static Water Level (feet):	10.78
Initial Groundwater Elevation (ft-amsl):	1197.21
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
3:21 PM	Purging start time.						
3:24 PM	14.2	0.7	1389.5	6.54	34.5	4.9	
3:27 PM	14.1	<0.1	1388.4	6.53	22.7	4.4	
3:30 PM	13.9	<0.1	1388.3	6.54	15.5	5.3	
3:33 PM	14.0	<0.1	1386.8	6.54	1.0	6.0	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color: Clear Odor: None

FORM FOR GROUNDWATER SAMPLING

Project:	**Guthrie County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-20**	Date:	**6/3/2024**
Gradient:	Down	Sampler:	Cole Tesar

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	33.1
Initial Static Water Level (feet):	10.63
Initial Groundwater Elevation (ft-amsl):	1188.97
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
4:44 PM	Purging start time.						
4:47 PM	14.4	7.6	530.2	6.76	-38.9	11.2	
4:50 PM	14.5	8.1	512.7	6.63	4.2	24.7	
4:53 PM	15.0	7.8	509.2	6.56	29.4	42.5	
4:56 PM	15.3	7.9	509.2	6.54	44.7	7.1	
	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

Appendix B-1

Laboratory Analytical Data Sheets

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/14/2024 1:39:06 PM

JOB DESCRIPTION

2024 Annual HMSP Guthrie County SLF

JOB NUMBER

310-282678-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

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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6/14/2024 1:39:06 PM

Authorized for release by
Mary Yang, Project Management Assistant I
Mary.Yang@ET.EurofinsUS.com
(319)277-2401

Table of Contents

Job ID: 310-282678-1 Eurofins Cedar Falls

Job Narrative
310-282678-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt
The samples were received on 6/4/2024 5:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-423635 recovered above the upper control limit for Carbon tetrachloride (36.5%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 310-423635/3).

Method 8260D: The laboratory control sample (LCS) for analytical batch 310-423635 recovered outside control limits for the following analytes: Carbon tetrachloride. These analytes were biased high in the LCS 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.

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

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

Sample Summary

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-282678-1	MW-12	Water	06/03/24 13:32	06/04/24 17:30
310-282678-2	MW-3	Water	06/03/24 14:06	06/04/24 17:30
310-282678-3	MW-5	Water	06/03/24 15:11	06/04/24 17:30
310-282678-4	MW-14	Water	06/03/24 14:41	06/04/24 17:30
310-282678-5	MW-16	Water	06/03/24 16:35	06/04/24 17:30
310-282678-6	MW-19	Water	06/03/24 15:51	06/04/24 17:30
310-282678-7	MW-20	Water	06/03/24 17:05	06/04/24 17:30
310-282678-8	MW-D	Water	06/03/24 15:51	06/04/24 17:30
310-282678-9	Trip Blank	Water	06/03/24 00:00	06/04/24 17:30

Detection Summary

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-12 — Lab Sample ID: 310-282678-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.51		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	1.75		1.00	0.480	ug/L	1		8260D	Total/NA
Barium	1.01		0.00200	0.000660	mg/L	1		6020B	Total/NA
Copper	0.00188	J	0.00500	0.00180	mg/L	1		6020B	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 310-282678-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	3.03		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	6.21		1.00	0.210	ug/L	1		8260D	Total/NA
Barium	0.734		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000443	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000304	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.00509		0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	58.2		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-282678-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0662		0.00200	0.000660	mg/L	1		6020B	Total/NA
Copper	0.00180	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Zinc	0.0106	J	0.0200	0.00970	mg/L	1		6020B	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 310-282678-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0253		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000521		0.000200	0.000100	mg/L	1		6020B	Total/NA
Chromium	0.00878		0.00500	0.00120	mg/L	1		6020B	Total/NA
Cobalt	0.000767		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00247	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.000344	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.0179		0.00500	0.00210	mg/L	1		6020B	Total/NA
Zinc	0.0111	J	0.0200	0.00970	mg/L	1		6020B	Total/NA
Total Suspended Solids	45.3		3.75	2.78	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-282678-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.287	J	0.500	0.220	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.250	J	1.00	0.210	ug/L	1		8260D	Total/NA
Arsenic	0.00813		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.147		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000521		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00283	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.00594		0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	6.67		5.00	3.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-282678-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0855		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000413	J	0.000500	0.000170	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-19 (Continued) — Lab Sample ID: 310-282678-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.00182	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Nickel	0.00393	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	9.12		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 310-282678-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	13.8		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-282678-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0854		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000404	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00369	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	6.75		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-282678-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-12
Lab Sample ID: 310-282678-1
Date Collected: 06/03/24 13:32
Matrix: Water
Date Received: 06/04/24 17:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/06/24 03:56	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/06/24 03:56	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/06/24 03:56	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/06/24 03:56	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/06/24 03:56	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/06/24 03:56	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/06/24 03:56	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/06/24 03:56	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/06/24 03:56	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/06/24 03:56	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/06/24 03:56	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/06/24 03:56	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/06/24 03:56	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/06/24 03:56	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/06/24 03:56	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/06/24 03:56	1
Acetone	<10.0		10.0	3.10	ug/L			06/06/24 03:56	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/06/24 03:56	1
Benzene	<0.500		0.500	0.220	ug/L			06/06/24 03:56	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/06/24 03:56	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/06/24 03:56	1
Bromoform	<5.00		5.00	0.780	ug/L			06/06/24 03:56	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/06/24 03:56	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/06/24 03:56	1
Carbon tetrachloride	<2.00	*+	2.00	0.650	ug/L			06/06/24 03:56	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/06/24 03:56	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/06/24 03:56	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/06/24 03:56	1
Chloroform	<3.00		3.00	1.30	ug/L			06/06/24 03:56	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/06/24 03:56	1
cis-1,2-Dichloroethene	**2.51**		1.00	0.210	ug/L			06/06/24 03:56	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/06/24 03:56	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/06/24 03:56	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/06/24 03:56	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/06/24 03:56	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/06/24 03:56	1
Styrene	<1.00		1.00	0.370	ug/L			06/06/24 03:56	1
Tetrachloroethene	**1.75**		1.00	0.480	ug/L			06/06/24 03:56	1
Toluene	<1.00		1.00	0.430	ug/L			06/06/24 03:56	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/06/24 03:56	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/06/24 03:56	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/06/24 03:56	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/06/24 03:56	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/06/24 03:56	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/06/24 03:56	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/06/24 03:56	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/06/24 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*73 - 130*		*06/06/24 03:56*	*1*

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-12
Lab Sample ID: 310-282678-1
Date Collected: 06/03/24 13:32
Matrix: Water
Date Received: 06/04/24 17:30

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/06/24 03:56*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/06/24 03:56*	*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		06/06/24 09:30	06/12/24 14:29	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 14:29	1
Barium	**1.01**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 14:29	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 14:29	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:09	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 14:29	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 14:29	1
Copper	**0.00188**	**J**	0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 14:29	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 14:29	1
Nickel	<0.00500		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 14:29	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 14:29	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:09	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 14:29	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 14:29	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 14:29	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	1.39	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-3
Lab Sample ID: 310-282678-2
Date Collected: 06/03/24 14:06
Matrix: Water
Date Received: 06/04/24 17:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/06/24 04:19	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/06/24 04:19	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/06/24 04:19	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/06/24 04:19	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/06/24 04:19	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/06/24 04:19	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/06/24 04:19	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/06/24 04:19	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/06/24 04:19	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/06/24 04:19	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/06/24 04:19	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/06/24 04:19	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/06/24 04:19	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/06/24 04:19	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/06/24 04:19	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/06/24 04:19	1
Acetone	<10.0		10.0	3.10	ug/L			06/06/24 04:19	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/06/24 04:19	1
Benzene	<0.500		0.500	0.220	ug/L			06/06/24 04:19	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/06/24 04:19	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/06/24 04:19	1
Bromoform	<5.00		5.00	0.780	ug/L			06/06/24 04:19	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/06/24 04:19	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/06/24 04:19	1
Carbon tetrachloride	<2.00	*+	2.00	0.650	ug/L			06/06/24 04:19	1
Chlorobenzene	**3.03**		1.00	0.400	ug/L			06/06/24 04:19	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/06/24 04:19	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/06/24 04:19	1
Chloroform	<3.00		3.00	1.30	ug/L			06/06/24 04:19	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/06/24 04:19	1
cis-1,2-Dichloroethene	**6.21**		1.00	0.210	ug/L			06/06/24 04:19	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/06/24 04:19	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/06/24 04:19	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/06/24 04:19	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/06/24 04:19	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/06/24 04:19	1
Styrene	<1.00		1.00	0.370	ug/L			06/06/24 04:19	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/06/24 04:19	1
Toluene	<1.00		1.00	0.430	ug/L			06/06/24 04:19	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/06/24 04:19	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/06/24 04:19	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/06/24 04:19	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/06/24 04:19	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/06/24 04:19	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/06/24 04:19	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/06/24 04:19	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/06/24 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*118*		*73 - 130*		*06/06/24 04:19*	*1*

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-3
Lab Sample ID: 310-282678-2
Date Collected: 06/03/24 14:06
Matrix: Water
Date Received: 06/04/24 17:30

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/06/24 04:19*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/06/24 04:19*	*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		06/06/24 09:30	06/12/24 14:46	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 14:46	1
Barium	**0.734**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 14:46	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 14:46	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:15	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 14:46	1
Cobalt	**0.000443**	**J**	0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 14:46	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 14:46	1
Lead	**0.000304**	**J**	0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 14:46	1
Nickel	**0.00509**		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 14:46	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 14:46	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 14:46	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 14:46	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**58.2**		1.88	1.39	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-5
Lab Sample ID: 310-282678-3
Date Collected: 06/03/24 15:11
Matrix: Water
Date Received: 06/04/24 17:30

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		06/06/24 09:30	06/12/24 14:50	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 14:50	1
Barium	**0.0662**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 14:50	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 14:50	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:26	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 14:50	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 14:50	1
Copper	**0.00180**	**J**	0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 14:50	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 14:50	1
Nickel	<0.00500		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 14:50	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 14:50	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:26	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 14:50	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 14:50	1
Zinc	**0.0106**	**J**	0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 14:50	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	1.39	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-14
Lab Sample ID: 310-282678-4
Date Collected: 06/03/24 14:41
Matrix: Water
Date Received: 06/04/24 17:30

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		06/06/24 09:30	06/12/24 14:53	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 14:53	1
Barium	**0.0253**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 14:53	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 14:53	1
Cadmium	**0.000521**		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:29	1
Chromium	**0.00878**		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 14:53	1
Cobalt	**0.000767**		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 14:53	1
Copper	**0.00247**	**J**	0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 14:53	1
Lead	**0.000344**	**J**	0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 14:53	1
Nickel	**0.0179**		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 14:53	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 14:53	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:29	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 14:53	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 14:53	1
Zinc	**0.0111**	**J**	0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 14:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**45.3**		3.75	2.78	mg/L			06/06/24 12:34	1

Client Sample ID: MW-16
Lab Sample ID: 310-282678-5
Date Collected: 06/03/24 16:35
Matrix: Water
Date Received: 06/04/24 17:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/06/24 04:42	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/06/24 04:42	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/06/24 04:42	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/06/24 04:42	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/06/24 04:42	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/06/24 04:42	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/06/24 04:42	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/06/24 04:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/06/24 04:42	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/06/24 04:42	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/06/24 04:42	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/06/24 04:42	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/06/24 04:42	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/06/24 04:42	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/06/24 04:42	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/06/24 04:42	1
Acetone	<10.0		10.0	3.10	ug/L			06/06/24 04:42	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/06/24 04:42	1
Benzene	**0.287**	**J**	0.500	0.220	ug/L			06/06/24 04:42	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/06/24 04:42	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/06/24 04:42	1
Bromoform	<5.00		5.00	0.780	ug/L			06/06/24 04:42	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/06/24 04:42	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/06/24 04:42	1
Carbon tetrachloride	<2.00	*+	2.00	0.650	ug/L			06/06/24 04:42	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/06/24 04:42	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/06/24 04:42	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/06/24 04:42	1
Chloroform	<3.00		3.00	1.30	ug/L			06/06/24 04:42	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/06/24 04:42	1
cis-1,2-Dichloroethene	**0.250**	**J**	1.00	0.210	ug/L			06/06/24 04:42	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/06/24 04:42	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/06/24 04:42	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/06/24 04:42	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/06/24 04:42	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/06/24 04:42	1
Styrene	<1.00		1.00	0.370	ug/L			06/06/24 04:42	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/06/24 04:42	1
Toluene	<1.00		1.00	0.430	ug/L			06/06/24 04:42	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/06/24 04:42	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/06/24 04:42	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/06/24 04:42	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/06/24 04:42	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/06/24 04:42	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/06/24 04:42	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/06/24 04:42	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/06/24 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*120*		*73 - 130*		*06/06/24 04:42*	*1*

Client Sample ID: MW-16
Lab Sample ID: 310-282678-5
Date Collected: 06/03/24 16:35
Matrix: Water
Date Received: 06/04/24 17:30

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/06/24 04:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/06/24 04:42*	*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		06/06/24 09:30	06/12/24 15:11	1
Arsenic	**0.00813**		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 15:11	1
Barium	**0.147**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 15:11	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 15:11	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:31	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 15:11	1
Cobalt	**0.000521**		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 15:11	1
Copper	**0.00283**	**J**	0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 15:11	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 15:11	1
Nickel	**0.00594**		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 15:11	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 15:11	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:31	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 15:11	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 15:11	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.67**		5.00	3.70	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-19
Lab Sample ID: 310-282678-6
Date Collected: 06/03/24 15:51
Matrix: Water
Date Received: 06/04/24 17:30

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		06/06/24 09:30	06/12/24 15:15	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 15:15	1
Barium	**0.0855**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 15:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 15:15	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:33	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 15:15	1
Cobalt	**0.000413**	**J**	0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 15:15	1
Copper	**0.00182**	**J**	0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 15:15	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 15:15	1
Nickel	**0.00393**	**J**	0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 15:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 15:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:33	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 15:15	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 15:15	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**9.12**		1.88	1.39	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-20
Lab Sample ID: 310-282678-7
Date Collected: 06/03/24 17:05
Matrix: Water
Date Received: 06/04/24 17:30

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		06/06/24 09:30	06/12/24 15:18	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	13.8		1.88	1.39	mg/L			06/06/24 12:34	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-D
Lab Sample ID: 310-282678-8
Date Collected: 06/03/24 15:51
Matrix: Water
Date Received: 06/04/24 17:30

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		06/06/24 09:30	06/12/24 15:22	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 15:22	1
Barium	**0.0854**		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 15:22	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 15:22	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:35	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 15:22	1
Cobalt	**0.000404**	**J**	0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 15:22	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 15:22	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 15:22	1
Nickel	**0.00369**	**J**	0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 15:22	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 15:22	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:35	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 15:22	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 15:22	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.75**		1.88	1.39	mg/L			06/06/24 11:07	1

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: Trip Blank
Lab Sample ID: 310-282678-9
Date Collected: 06/03/24 00:00
Matrix: Water
Date Received: 06/04/24 17:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/06/24 00:31	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/06/24 00:31	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/06/24 00:31	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/06/24 00:31	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/06/24 00:31	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/06/24 00:31	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/06/24 00:31	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/06/24 00:31	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/06/24 00:31	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/06/24 00:31	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/06/24 00:31	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/06/24 00:31	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/06/24 00:31	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/06/24 00:31	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/06/24 00:31	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/06/24 00:31	1
Acetone	<10.0		10.0	3.10	ug/L			06/06/24 00:31	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/06/24 00:31	1
Benzene	<0.500		0.500	0.220	ug/L			06/06/24 00:31	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/06/24 00:31	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/06/24 00:31	1
Bromoform	<5.00		5.00	0.780	ug/L			06/06/24 00:31	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/06/24 00:31	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/06/24 00:31	1
Carbon tetrachloride	<2.00	*+	2.00	0.650	ug/L			06/06/24 00:31	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/06/24 00:31	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/06/24 00:31	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/06/24 00:31	1
Chloroform	<3.00		3.00	1.30	ug/L			06/06/24 00:31	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/06/24 00:31	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/06/24 00:31	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/06/24 00:31	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/06/24 00:31	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/06/24 00:31	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/06/24 00:31	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/06/24 00:31	1
Styrene	<1.00		1.00	0.370	ug/L			06/06/24 00:31	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/06/24 00:31	1
Toluene	<1.00		1.00	0.430	ug/L			06/06/24 00:31	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/06/24 00:31	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/06/24 00:31	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/06/24 00:31	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/06/24 00:31	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/06/24 00:31	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/06/24 00:31	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/06/24 00:31	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/06/24 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*73 - 130*		*06/06/24 00:31*	*1*

Client Sample ID: Trip Blank
Lab Sample ID: 310-282678-9
Date Collected: 06/03/24 00:00
Matrix: Water
Date Received: 06/04/24 17:30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		80 - 120		06/06/24 00:31	1
4-Bromofluorobenzene (Surr)	103		80 - 120		06/06/24 00:31	1

Qualifiers

GC/MS 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.

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.

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: 2024 Annual HMSP Guthrie County SLF

Job ID: 310-282678-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		DBFM	TOL	BFB						
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)						
310-282678-1	MW-12	117	96	103						
310-282678-2	MW-3	118	95	103						
310-282678-5	MW-16	120	94	102						
310-282678-9	Trip Blank	117	96	103						
LCS 310-423635/6	Lab Control Sample	103	99	99						
LCS 310-423635/7	Lab Control Sample	116	96	103						
MB 310-423635/5	Method Blank	113	96	101						

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

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

Lab Sample ID: MB 310-423635/5
Matrix: Water
Analysis Batch: 423635

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/05/24 22:37	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/05/24 22:37	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/05/24 22:37	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/05/24 22:37	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/05/24 22:37	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/05/24 22:37	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/05/24 22:37	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/05/24 22:37	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/05/24 22:37	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/05/24 22:37	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/05/24 22:37	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/05/24 22:37	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/05/24 22:37	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/05/24 22:37	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/05/24 22:37	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/05/24 22:37	1
Acetone	<10.0		10.0	3.10	ug/L			06/05/24 22:37	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/05/24 22:37	1
Benzene	<0.500		0.500	0.220	ug/L			06/05/24 22:37	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/05/24 22:37	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/05/24 22:37	1
Bromoform	<5.00		5.00	0.780	ug/L			06/05/24 22:37	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/05/24 22:37	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/05/24 22:37	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/05/24 22:37	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/05/24 22:37	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/05/24 22:37	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/05/24 22:37	1
Chloroform	<3.00		3.00	1.30	ug/L			06/05/24 22:37	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/05/24 22:37	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/05/24 22:37	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/05/24 22:37	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/05/24 22:37	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/05/24 22:37	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/05/24 22:37	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/05/24 22:37	1
Styrene	<1.00		1.00	0.370	ug/L			06/05/24 22:37	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/05/24 22:37	1
Toluene	<1.00		1.00	0.430	ug/L			06/05/24 22:37	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/05/24 22:37	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/05/24 22:37	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/05/24 22:37	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/05/24 22:37	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/05/24 22:37	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/05/24 22:37	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/05/24 22:37	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/05/24 22:37	1

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

Lab Sample ID: MB 310-423635/5
Matrix: Water
Analysis Batch: 423635

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*113*		*73 - 130*		*06/05/24 22:37*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/05/24 22:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/05/24 22:37*	*1*

Lab Sample ID: LCS 310-423635/6
Matrix: Water
Analysis Batch: 423635

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	20.79		ug/L		104	71 - 120
1,1,1-Trichloroethane	20.0	24.58		ug/L		123	73 - 129
1,1,2,2-Tetrachloroethane	20.0	19.45		ug/L		97	68 - 124
1,1,2-Trichloroethane	20.0	19.79		ug/L		99	73 - 123
1,1-Dichloroethane	20.0	21.22		ug/L		106	70 - 127
1,1-Dichloroethene	20.0	21.51		ug/L		108	63 - 132
1,2,3-Trichloropropane	20.0	20.72		ug/L		104	65 - 127
1,2-Dibromo-3-chloropropane	20.0	20.13		ug/L		101	50 - 150
1,2-Dibromoethane (EDB)	20.0	22.25		ug/L		111	75 - 125
1,2-Dichlorobenzene	20.0	19.96		ug/L		100	74 - 120
1,2-Dichloroethane	20.0	22.98		ug/L		115	71 - 125
1,2-Dichloropropane	20.0	21.97		ug/L		110	73 - 124
1,4-Dichlorobenzene	20.0	20.07		ug/L		100	72 - 120
2-Butanone (MEK)	40.0	40.50		ug/L		101	50 - 150
2-Hexanone	40.0	39.23		ug/L		98	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	39.63		ug/L		99	60 - 139
Acetone	40.0	40.11		ug/L		100	50 - 150
Acrylonitrile	200	212.7		ug/L		106	50 - 150
Benzene	20.0	21.93		ug/L		110	72 - 124
Bromochloromethane	20.0	24.16		ug/L		121	73 - 130
Bromodichloromethane	20.0	22.64		ug/L		113	74 - 122
Bromoform	20.0	21.58		ug/L		108	61 - 122
Carbon disulfide	20.0	21.35		ug/L		107	59 - 135
Carbon tetrachloride	20.0	27.12	*+	ug/L		136	67 - 132
Chlorobenzene	20.0	20.67		ug/L		103	76 - 120
Chlorodibromomethane	20.0	21.74		ug/L		109	71 - 121
Chloroform	20.0	22.64		ug/L		113	72 - 125
cis-1,2-Dichloroethene	20.0	21.60		ug/L		108	74 - 123
cis-1,3-Dichloropropene	20.0	22.26		ug/L		111	71 - 125
Dibromomethane	20.0	22.66		ug/L		113	74 - 125
Ethylbenzene	20.0	20.96		ug/L		105	74 - 122
Iodomethane	20.0	20.72		ug/L		104	10 - 150
Methylene chloride	20.0	22.10		ug/L		110	50 - 150
Styrene	20.0	21.25		ug/L		106	74 - 121
Tetrachloroethene	20.0	21.65		ug/L		108	71 - 130
Toluene	20.0	20.92		ug/L		105	74 - 123
trans-1,2-Dichloroethene	20.0	22.23		ug/L		111	70 - 126
trans-1,3-Dichloropropene	20.0	22.23		ug/L		111	69 - 123
trans-1,4-Dichloro-2-butene	20.0	19.21		ug/L		96	50 - 150

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

Lab Sample ID: LCS 310-423635/6
Matrix: Water
Analysis Batch: 423635

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	23.36		ug/L		117	72 - 126
Vinyl acetate	40.0	46.63		ug/L		117	50 - 150
Xylenes, Total	40.0	41.14		ug/L		103	73 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*73 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: LCS 310-423635/7
Matrix: Water
Analysis Batch: 423635

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	16.67		ug/L		83	23 - 150
Chloroethane	20.0	17.53		ug/L		88	54 - 136
Chloromethane	20.0	16.14		ug/L		81	38 - 150
Trichlorofluoromethane	20.0	22.01		ug/L		110	54 - 149
Vinyl chloride	20.0	18.26		ug/L		91	56 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*116*		*73 - 130*
Toluene-d8 (Surr)	*96*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-423680/1-A
Matrix: Water
Analysis Batch: 424409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423680

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/06/24 09:30	06/12/24 14:22	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/06/24 09:30	06/12/24 14:22	1
Barium	<0.00200		0.00200	0.000660	mg/L		06/06/24 09:30	06/12/24 14:22	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/06/24 09:30	06/12/24 14:22	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/06/24 09:30	06/12/24 14:22	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/06/24 09:30	06/12/24 14:22	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/06/24 09:30	06/12/24 14:22	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/06/24 09:30	06/12/24 14:22	1
Nickel	<0.00500		0.00500	0.00210	mg/L		06/06/24 09:30	06/12/24 14:22	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/06/24 09:30	06/12/24 14:22	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/06/24 09:30	06/12/24 14:22	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/06/24 09:30	06/12/24 14:22	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/06/24 09:30	06/12/24 14:22	1

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

Lab Sample ID: MB 310-423680/1-A
Matrix: Water
Analysis Batch: 424569

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423680

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/06/24 09:30	06/13/24 21:05	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/06/24 09:30	06/13/24 21:05	1

Lab Sample ID: LCS 310-423680/2-A
Matrix: Water
Analysis Batch: 424409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1986		mg/L		99	80 - 120
Arsenic	0.200	0.1952		mg/L		98	80 - 120
Barium	0.100	0.09883		mg/L		99	80 - 120
Beryllium	0.100	0.09887		mg/L		99	80 - 120
Chromium	0.100	0.1017		mg/L		102	80 - 120
Cobalt	0.100	0.1031		mg/L		103	80 - 120
Copper	0.200	0.2017		mg/L		101	80 - 120
Lead	0.200	0.2016		mg/L		101	80 - 120
Nickel	0.200	0.2044		mg/L		102	80 - 120
Selenium	0.400	0.3658		mg/L		91	80 - 120
Thallium	0.100	0.08914		mg/L		89	80 - 120
Vanadium	0.100	0.09657		mg/L		97	80 - 120
Zinc	0.200	0.2087		mg/L		104	80 - 120

Lab Sample ID: LCS 310-423680/2-A
Matrix: Water
Analysis Batch: 424569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.100	0.09752		mg/L		98	80 - 120
Silver	0.100	0.1119		mg/L		112	80 - 120

Lab Sample ID: 310-282678-1 MS
Matrix: Water
Analysis Batch: 424409

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.1983		mg/L		99	75 - 125
Arsenic	<0.00200		0.200	0.2029		mg/L		101	75 - 125
Barium	1.01		0.100	1.121	4	mg/L		110	75 - 125
Beryllium	<0.00100		0.100	0.1009		mg/L		101	75 - 125
Chromium	<0.00500		0.100	0.1006		mg/L		101	75 - 125
Cobalt	<0.000500		0.100	0.09906		mg/L		99	75 - 125
Copper	0.00188	J	0.200	0.1937		mg/L		96	75 - 125
Lead	<0.000500		0.200	0.1924		mg/L		96	75 - 125
Nickel	<0.00500		0.200	0.1894		mg/L		95	75 - 125
Selenium	<0.00500		0.400	0.3935		mg/L		98	75 - 125
Thallium	<0.00100		0.100	0.07453		mg/L		75	75 - 125
Vanadium	<0.00500		0.100	0.09800		mg/L		98	75 - 125
Zinc	<0.0200		0.200	0.1904		mg/L		95	75 - 125

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

Lab Sample ID: 310-282678-1 MS
Matrix: Water
Analysis Batch: 424569

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cadmium	<0.000200		0.100	0.09629		mg/L		96	75 - 125		
Silver	<0.00100		0.100	0.1037		mg/L		104	75 - 125		

Lab Sample ID: 310-282678-1 MSD
Matrix: Water
Analysis Batch: 424409

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.1981		mg/L		99	75 - 125	0	20
Arsenic	<0.00200		0.200	0.2040		mg/L		102	75 - 125	1	20
Barium	1.01		0.100	1.109	4	mg/L		98	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1040		mg/L		104	75 - 125	3	20
Chromium	<0.00500		0.100	0.1009		mg/L		101	75 - 125	0	20
Cobalt	<0.000500		0.100	0.09987		mg/L		100	75 - 125	1	20
Copper	0.00188	J	0.200	0.1930		mg/L		96	75 - 125	0	20
Lead	<0.000500		0.200	0.1932		mg/L		97	75 - 125	0	20
Nickel	<0.00500		0.200	0.1935		mg/L		97	75 - 125	2	20
Selenium	<0.00500		0.400	0.3976		mg/L		99	75 - 125	1	20
Thallium	<0.00100		0.100	0.07686		mg/L		77	75 - 125	3	20
Vanadium	<0.00500		0.100	0.09875		mg/L		99	75 - 125	1	20
Zinc	<0.0200		0.200	0.1914		mg/L		96	75 - 125	1	20

Lab Sample ID: 310-282678-1 MSD
Matrix: Water
Analysis Batch: 424569

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 423680

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	<0.000200		0.100	0.09557		mg/L		96	75 - 125	1	20
Silver	<0.00100		0.100	0.1025		mg/L		103	75 - 125	1	20

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

Lab Sample ID: MB 310-423797/1
Matrix: Water
Analysis Batch: 423797

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	3.70	mg/L			06/06/24 11:07	1

Lab Sample ID: LCS 310-423797/2
Matrix: Water
Analysis Batch: 423797

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		

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

Lab Sample ID: MB 310-423810/1
Matrix: Water
Analysis Batch: 423810

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	3.70	mg/L			06/06/24 12:34	1

Lab Sample ID: LCS 310-423810/2
Matrix: Water
Analysis Batch: 423810

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	87.00		mg/L		87	81 - 116		

GC/MS VOA

Analysis Batch: 423635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1	MW-12	Total/NA	Water	8260D	
310-282678-2	MW-3	Total/NA	Water	8260D	
310-282678-5	MW-16	Total/NA	Water	8260D	
310-282678-9	Trip Blank	Total/NA	Water	8260D	
MB 310-423635/5	Method Blank	Total/NA	Water	8260D	
LCS 310-423635/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-423635/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 423680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1	MW-12	Total/NA	Water	3005A	
310-282678-2	MW-3	Total/NA	Water	3005A	
310-282678-3	MW-5	Total/NA	Water	3005A	
310-282678-4	MW-14	Total/NA	Water	3005A	
310-282678-5	MW-16	Total/NA	Water	3005A	
310-282678-6	MW-19	Total/NA	Water	3005A	
310-282678-7	MW-20	Total/NA	Water	3005A	
310-282678-8	MW-D	Total/NA	Water	3005A	
MB 310-423680/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-423680/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-282678-1 MS	MW-12	Total/NA	Water	3005A	
310-282678-1 MSD	MW-12	Total/NA	Water	3005A	

Analysis Batch: 424409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1	MW-12	Total/NA	Water	6020B	423680
310-282678-2	MW-3	Total/NA	Water	6020B	423680
310-282678-3	MW-5	Total/NA	Water	6020B	423680
310-282678-4	MW-14	Total/NA	Water	6020B	423680
310-282678-5	MW-16	Total/NA	Water	6020B	423680
310-282678-6	MW-19	Total/NA	Water	6020B	423680
310-282678-7	MW-20	Total/NA	Water	6020B	423680
310-282678-8	MW-D	Total/NA	Water	6020B	423680
MB 310-423680/1-A	Method Blank	Total/NA	Water	6020B	423680
LCS 310-423680/2-A	Lab Control Sample	Total/NA	Water	6020B	423680
310-282678-1 MS	MW-12	Total/NA	Water	6020B	423680
310-282678-1 MSD	MW-12	Total/NA	Water	6020B	423680

Analysis Batch: 424569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1	MW-12	Total/NA	Water	6020B	423680
310-282678-2	MW-3	Total/NA	Water	6020B	423680
310-282678-3	MW-5	Total/NA	Water	6020B	423680
310-282678-4	MW-14	Total/NA	Water	6020B	423680
310-282678-5	MW-16	Total/NA	Water	6020B	423680
310-282678-6	MW-19	Total/NA	Water	6020B	423680
310-282678-8	MW-D	Total/NA	Water	6020B	423680
MB 310-423680/1-A	Method Blank	Total/NA	Water	6020B	423680
LCS 310-423680/2-A	Lab Control Sample	Total/NA	Water	6020B	423680

Metals (Continued)

Analysis Batch: 424569 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1 MS	MW-12	Total/NA	Water	6020B	423680
310-282678-1 MSD	MW-12	Total/NA	Water	6020B	423680

General Chemistry

Analysis Batch: 423797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-1	MW-12	Total/NA	Water	I-3765-85	
310-282678-2	MW-3	Total/NA	Water	I-3765-85	
310-282678-3	MW-5	Total/NA	Water	I-3765-85	
310-282678-5	MW-16	Total/NA	Water	I-3765-85	
310-282678-6	MW-19	Total/NA	Water	I-3765-85	
310-282678-8	MW-D	Total/NA	Water	I-3765-85	
MB 310-423797/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-423797/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 423810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-282678-4	MW-14	Total/NA	Water	I-3765-85	
310-282678-7	MW-20	Total/NA	Water	I-3765-85	
MB 310-423810/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-423810/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-12
Lab Sample ID: 310-282678-1
Date Collected: 06/03/24 13:32
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	423635	FE5V	EET CF	06/06/24 03:56
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 14:29
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:09
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: MW-3
Lab Sample ID: 310-282678-2
Date Collected: 06/03/24 14:06
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	423635	FE5V	EET CF	06/06/24 04:19
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 14:46
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:15
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: MW-5
Lab Sample ID: 310-282678-3
Date Collected: 06/03/24 15:11
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 14:50
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:26
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: MW-14
Lab Sample ID: 310-282678-4
Date Collected: 06/03/24 14:41
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 14:53
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:29
Total/NA	Analysis	I-3765-85		1	423810	DGU1	EET CF	06/06/24 12:34

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Client Sample ID: MW-16
Lab Sample ID: 310-282678-5
Date Collected: 06/03/24 16:35
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	423635	FE5V	EET CF	06/06/24 04:42
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 15:11
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:31
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: MW-19
Lab Sample ID: 310-282678-6
Date Collected: 06/03/24 15:51
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 15:15
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:33
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: MW-20
Lab Sample ID: 310-282678-7
Date Collected: 06/03/24 17:05
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 15:18
Total/NA	Analysis	I-3765-85		1	423810	DGU1	EET CF	06/06/24 12:34

Client Sample ID: MW-D
Lab Sample ID: 310-282678-8
Date Collected: 06/03/24 15:51
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424409	NFT2	EET CF	06/12/24 15:22
Total/NA	Prep	3005A			423680	KM3E	EET CF	06/06/24 09:30
Total/NA	Analysis	6020B		1	424569	NFT2	EET CF	06/13/24 21:35
Total/NA	Analysis	I-3765-85		1	423797	DGU1	EET CF	06/06/24 11:07

Client Sample ID: Trip Blank
Lab Sample ID: 310-282678-9
Date Collected: 06/03/24 00:00
Matrix: Water
Date Received: 06/04/24 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	423635	FE5V	EET CF	06/06/24 00:31

Lab Chronicle

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

Laboratory: Eurofins Cedar Falls

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

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

Method Summary

Client: SCS Engineers
Job ID: 310-282678-1
Project/Site: 2024 Annual HMSP Guthrie County SLF

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

Protocol References:

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

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

Laboratory References:

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

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310-282678 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: SCS Engineers			
City/State: CITY		STATE IA	Project:
Receipt Information			
Date/Time Received: DATE 6/4/24		TIME 1730	Received By:

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

Condition of Cooler/Containers

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

AM

Temperature Record

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

Thermometer ID: R	Correction Factor (°C): +0.0

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

Uncorrected Temp (°C): 1.9	Corrected Temp (°C): 1.9

• Sample Container Temperature

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

Exceptions Noted

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

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

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

Additional Comments

Eurofins 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
214

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Client Information	Sampler	Lab PM: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-93177-23319 1
Client Contact: Nathan Ohrt	Phone:	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: nohrt@scsengineers.com	WO #:			
Project Name: 2024 Annual HMSP Guthrie County SLF	Project #: 31013618			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
D - HNO3
A - HCL
N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Appendix I Metals	8260D - Volatile Appendix I Sublist	1_3765_85 - Residue, Non-filterable (TSS)	6020B - (MOD) Arsenic & Cobalt	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N	D		
MW-12	6/3/24	13:32		Water			X	X	X			
MW-3	6/3/24	14:06		Water			X	X	X			
MW-5	6/3/24	15:11		Water			X		X			
MW-14	6/3/24	14:41		Water			X		X			
MW-16	6/3/24	16:35		Water			X	X	X			
MW-19	6/3/24	15:51		Water			X		X			
MW-20	6/3/24	17:05		Water					X	X		
MW-D	6/3/24	15:51		Water			X		X			
Trip Blank				Water				X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Ben Madson	6/4/24 12:00	SCS	MC	6-4-24 1730	
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:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-282678-1
SDG Number:

Login Number: 282678
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B-2

Data Validation Documentation

Completed by: Nathan Ohrt
Sample Date: 6/3/2024
Lab Report Date: 6/14/2024
Site Name: Guthrie County Sanitary Landfill
Project Type: HMSP
Lab Report Number: 310-282678

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections	X			No detections.
Accuracy				
ICV/CCV		X		The CCV recovered above the upper control limit for carbon tetrachloride; the samples associated with the CCV were non-detect for the affected analyte so the data was reported.
LCS/LCSD		X		The LCS recovered above the upper control limit for carbon tetrachloride; the analyte was biased high in the LCS and was not detected in the associated samples so the data were reported.
MS/MSD	X			
Surrogates (organics only)				
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			MW-19 and duplicate sample MW-D had <50% RPD for analyzed parameters.

Appendix C

Summary of Groundwater Chemistry

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

Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	3/29/2010	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/8/2010	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/18/2011	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/8/2011	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/26/2012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/21/2012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/16/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/16/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/1/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/25/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/14/2015	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/16/2015	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/11/2016	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/23/2016	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/11/2017	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	10/9/2017	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/5/2018	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/11/2018	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/28/2019	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/23/2019	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/15/2020	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/21/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/21/2021	N/A	N/A	< 0.002	N/A	N/A	N/A
	4/5/2022	< 0.002	< 0.002	< 0.002	< 0.008	< 0.002	< 0.002
	4/5/2022	N/A	N/A	N/A	< 0.008	N/A	N/A
	7/14/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/14/2023	N/A	N/A	N/A	N/A	< 0.002	N/A
	6/3/2024	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.002
Arsenic, mg/L (CAS NO - 7440-38-2)	3/29/2010	< 0.004	< 0.004	< 0.004	< 0.004	**0.0195**	< 0.004
	9/8/2010	< 0.004	**0.006**	**0.007**	< 0.004	**0.0306**	< 0.004
	3/18/2011	< 0.004	< 0.004	**0.0068**	**0.0048**	**0.0263**	< 0.004
	9/8/2011	< 0.004	**0.0042**	**0.0062**	< 0.004	**0.0342**	< 0.004
	3/26/2012	**0.007**	**0.0047**	**0.0076**	< 0.004	**0.0145**	< 0.004
	8/21/2012	**0.0055**	**0.0057**	**0.0097**	**0.0063**	**0.0257**	**0.0052**
	4/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	**0.0253**	< 0.004
	4/1/2014	< 0.004	< 0.004	**0.0059**	< 0.004	**0.0309**	< 0.004
	9/25/2014	0.0043	0.0057	< 0.004	< 0.004	0.0141	< 0.004
	3/14/2015	0.0046	< 0.004	< 0.004	< 0.004	0.0327	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	**0.0542**	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	**0.0145**	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	**0.0392**	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	**0.007**	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.002	< 0.002	< 0.002	< 0.002	**0.0051**	< 0.002
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	**0.0273**	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	**0.0106**	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	**0.0283**	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	**0.0228**	< 0.004
	7/21/2021	< 0.002	< 0.002	< 0.002	< 0.002	**0.0207**	< 0.002
	7/21/2021	N/A	N/A	< 0.002	N/A	N/A	N/A
	4/5/2022	< 0.002	< 0.002	< 0.002	< 0.008	**0.00694**	< 0.002
	4/5/2022	N/A	N/A	N/A	< 0.008	N/A	N/A
	7/14/2023	< 0.002	< 0.002	< 0.002	0.000533*	**0.00283**	< 0.002
	7/14/2023	N/A	N/A	N/A	N/A	**0.00213**	N/A
	6/3/2024	< 0.002	< 0.002	< 0.002	< 0.002	**0.00813**	< 0.002
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.002

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

Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Barium, mg/L (CAS NO - 7440-39-3)	3/29/2010	0.264	0.646	0.0892	0.244	0.226	0.134
	9/8/2010	0.304	0.781	0.131	0.179	0.326	0.163
	3/18/2011	0.419	0.588	0.117	0.136	0.342	0.135
	9/8/2011	0.496	0.648	0.137	0.164	0.412	0.143
	3/26/2012	0.641	0.715	0.132	0.053	0.297	0.138
	8/21/2012	0.474	0.663	0.102	0.197	0.3	0.126
	4/16/2013	0.665	0.739	0.092	0.0372	0.164	0.083
	9/16/2013	0.657	0.52	0.103	0.201	0.158	0.126
	4/1/2014	0.75	0.672	0.0917	0.0321	0.165	0.125
	9/25/2014	0.673	1.15	0.103	0.0519	0.218	0.114
	3/14/2015	0.769	0.508	0.0779	0.0864	0.155	0.123
	9/16/2015	0.353	0.298	0.0825	0.0196	0.161	0.105
	3/11/2016	0.491	0.323	0.0883	0.023	0.315	0.115
	8/23/2016	0.47	0.354	0.0867	0.0211	0.175	0.139
	4/11/2017	0.699	0.321	0.0897	0.0303	0.341	0.0981
	10/9/2017	0.695	0.449	0.0822	0.02	0.295	0.131
	4/5/2018	0.827	0.385	0.0827	0.0206	0.222	0.112
	9/11/2018	0.857	0.368	0.083	0.0212	0.253	0.122
	3/28/2019	0.694	0.344	0.0814	0.022	0.201	0.107
	9/23/2019	0.663	0.365	0.0863	0.0204	0.265	0.152
	4/15/2020	0.741	0.33	0.128	0.0281	0.38	0.112
	7/21/2021	0.855	0.608	0.0706	0.0254	0.287	0.0946
	7/21/2021	N/A	N/A	0.0705	N/A	N/A	N/A
	4/5/2022	0.953	0.78	0.0684	0.031	0.164	0.0906
	4/5/2022	N/A	N/A	N/A	0.0286	N/A	N/A
	7/14/2023	1.17	0.68	0.0664	0.0234	0.212	0.0918
	7/14/2023	N/A	N/A	N/A	N/A	0.214	N/A
	6/3/2024	1.01	0.734	0.0662	0.0253	0.147	0.0855
	6/3/2024	N/A	N/A	N/A	N/A	N/A	0.0854
Beryllium, mg/L (CAS NO - 7440-41-7)	3/29/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/18/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/26/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/21/2012	< 0.004	0.0042	0.0042	< 0.004	< 0.004	< 0.004
	4/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/25/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/14/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	7/21/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/21/2021	N/A	N/A	< 0.001	N/A	N/A	N/A
	4/5/2022	< 0.001	< 0.001	< 0.001	< 0.004	< 0.001	< 0.001
	4/5/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	7/14/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/14/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	6/3/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.001

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

Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	3/29/2010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/8/2010	< 0.001	**0.0011**	< 0.001	< 0.001	< 0.001	< 0.001
	3/18/2011	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	9/8/2011	< 0.0008	**0.0009**	**0.0012**	< 0.0008	**0.0008**	< 0.0008
	3/26/2012	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0033**	< 0.0008
	8/21/2012	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	4/16/2013	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	9/16/2013	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	4/1/2014	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0009**	< 0.0008
	9/25/2014	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	3/14/2015	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	9/16/2015	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	3/11/2016	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0008**	< 0.0008
	8/23/2016	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	4/11/2017	< 0.0008	**0.0022**	**0.001**	< 0.0008	< 0.0008	< 0.0008
	7/13/2017	N/A	N/A	< 0.0008	N/A	N/A	N/A
	10/9/2017	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0008**	< 0.0008
	4/5/2018	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	9/11/2018	**0.0011**	< 0.0008	**0.0009**	< 0.0008	< 0.0008	< 0.0008
	11/1/2018	< 0.0008	N/A	N/A	N/A	N/A	N/A
	3/28/2019	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	9/23/2019	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	4/15/2020	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
	7/21/2021	< 0.0001	0.000054*	**0.000116**	**0.000157**	0.000096*	0.000086*
	7/21/2021	N/A	N/A	**0.000103**	N/A	N/A	N/A
	4/5/2022	< 0.0001	0.000081*	0.000094*	**0.0004**	**0.000502**	< 0.0001
	4/5/2022	N/A	N/A	N/A	0.000344*	N/A	N/A
	7/14/2023	< 0.0002	< 0.0002	< 0.0002	**0.000304**	**0.000421**	< 0.0002
	7/14/2023	N/A	N/A	N/A	N/A	**0.000538**	N/A
	6/3/2024	< 0.0002	< 0.0002	< 0.0002	**0.000521**	< 0.0002	< 0.0002
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.0002
Chromium, mg/L (CAS NO - 7440-47-3)	3/29/2010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	9/8/2010	< 0.01	**0.013**	< 0.01	< 0.01	< 0.01	< 0.01
	3/18/2011	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/8/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2012	< 0.008	**0.0087**	< 0.008	< 0.008	< 0.008	< 0.008
	8/21/2012	< 0.008	**0.0103**	**0.0091**	< 0.008	< 0.008	< 0.008
	4/16/2013	< 0.008	**0.0089**	< 0.008	< 0.008	< 0.008	< 0.008
	9/16/2013	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/1/2014	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/25/2014	< 0.008	0.0105	< 0.008	< 0.008	< 0.008	< 0.008
	3/14/2015	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/16/2015	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	3/11/2016	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	8/23/2016	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/11/2017	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	10/9/2017	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/5/2018	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/11/2018	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	3/28/2019	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/23/2019	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/15/2020	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	7/21/2021	< 0.005	< 0.005	0.00225*	< 0.005	< 0.005	< 0.005
	7/21/2021	N/A	N/A	< 0.005	N/A	N/A	N/A
	4/5/2022	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.005
	4/5/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/14/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/14/2023	N/A	N/A	N/A	N/A	< 0.005	N/A
	6/3/2024	< 0.005	< 0.005	< 0.005	**0.00878**	< 0.005	< 0.005
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.005

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

Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	3/29/2010	< 0.004	**0.006**	**0.0106**	**0.0043**	**0.0333**	< 0.004
	9/8/2010	< 0.004	**0.0073**	**0.0164**	< 0.004	**0.0292**	< 0.004
	3/18/2011	< 0.004	**0.0048**	**0.0088**	< 0.004	**0.0239**	< 0.004
	9/8/2011	< 0.004	**0.0054**	**0.0127**	< 0.004	**0.0165**	< 0.004
	3/26/2012	< 0.004	< 0.004	**0.0103**	< 0.004	**0.0235**	< 0.004
	8/21/2012	< 0.004	**0.004**	**0.0074**	**0.0057**	**0.0192**	< 0.004
	4/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	**0.004**	**0.0045**	**0.0136**	< 0.004
	4/1/2014	< 0.004	< 0.004	**0.005**	< 0.004	**0.0161**	< 0.004
	9/25/2014	0.0026	0.0138	0.0024	0.0009	0.0296	0.0012
	3/14/2015	0.0026	0.0049	0.0016	0.0019	0.0081	0.0011
	9/16/2015	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0077**	< 0.0008
	3/11/2016	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0421**	< 0.0008
	8/23/2016	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0164**	< 0.0008
	4/11/2017	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0345**	< 0.0008
	10/9/2017	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0173**	< 0.0008
	4/5/2018	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/11/2018	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0162**	< 0.0008
	3/28/2019	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0175**	< 0.0008
	9/23/2019	< 0.0008	< 0.0008	< 0.0008	< 0.0008	**0.0145**	< 0.0008
	4/15/2020	< 0.0004	< 0.0004	< 0.0004	< 0.0004	**0.0446**	< 0.0004
	7/21/2021	< 0.0005	**0.000691**	0.000403*	**0.000783**	**0.015**	0.000395*
	7/21/2021	N/A	N/A	0.000324*	N/A	N/A	N/A
	4/5/2022	< 0.0005	**0.000803**	0.000258*	0.00131*	**0.0028**	< 0.0005
	4/5/2022	N/A	N/A	N/A	0.0013*	N/A	N/A
	7/14/2023	< 0.0005	0.00034*	0.00017*	**0.000596**	**0.0189**	**0.00072**
	7/14/2023	N/A	N/A	N/A	N/A	**0.0208**	N/A
	6/3/2024	< 0.0005	0.000443*	< 0.0005	**0.000767**	**0.000521**	0.000413*
	6/3/2024	N/A	N/A	N/A	N/A	N/A	0.000404*
Copper, mg/L (CAS NO - 7440-50-8)	3/29/2010	< 0.004	**0.0096**	**0.0081**	**0.004**	< 0.004	< 0.004
	9/8/2010	< 0.004	**0.0161**	**0.012**	< 0.004	< 0.004	**0.004**
	3/18/2011	< 0.004	**0.0079**	**0.0082**	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	**0.0091**	**0.009**	< 0.004	< 0.004	< 0.004
	3/26/2012	**0.0053**	**0.0075**	**0.0067**	< 0.004	**0.0047**	< 0.004
	8/21/2012	< 0.004	**0.0072**	**0.0073**	< 0.004	< 0.004	< 0.004
	4/16/2013	< 0.004	**0.0074**	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	**0.0057**	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	**0.0126**	**0.0061**	< 0.004	**0.0138**	< 0.004
	9/25/2014	0.0049	0.0131	< 0.004	< 0.004	0.0071	< 0.004
	3/14/2015	0.0054	0.0075	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	**0.0048**	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	**0.0049**	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	**0.0274**	< 0.004	< 0.004	**0.0048**	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	7/21/2021	< 0.005	< 0.005	< 0.005	0.00158*	0.0015*	< 0.005
	7/21/2021	N/A	N/A	< 0.005	N/A	N/A	N/A
	4/5/2022	< 0.005	< 0.005	< 0.005	< 0.02	**0.0055**	< 0.005
	4/5/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/14/2023	0.00184*	< 0.005	< 0.005	0.0032*	< 0.005	< 0.005
	7/14/2023	N/A	N/A	N/A	N/A	< 0.005	N/A
	6/3/2024	0.00188*	< 0.005	0.0018*	0.00247*	0.00283*	0.00182*
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.005

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Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Lead, mg/L (CAS NO - 7439-92-1)	3/29/2010	< 0.004	**0.0084**	**0.0091**	< 0.004	< 0.004	< 0.004
	9/8/2010	< 0.004	**0.0129**	**0.0131**	< 0.004	< 0.004	< 0.004
	3/18/2011	< 0.004	**0.0052**	**0.0081**	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	**0.0066**	**0.01**	< 0.004	< 0.004	< 0.004
	3/26/2012	**0.0047**	**0.0066**	**0.0085**	< 0.004	< 0.004	**0.0079**
	8/21/2012	< 0.004	< 0.004	**0.0073**	< 0.004	< 0.004	< 0.004
	4/16/2013	< 0.004	**0.005**	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	< 0.004	**0.0045**	< 0.004	< 0.004	< 0.004
	9/25/2014	< 0.004	0.0088	< 0.004	< 0.004	< 0.004	< 0.004
	3/14/2015	< 0.004	0.0044	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	7/21/2021	< 0.0005	0.000215*	< 0.0005	0.000258*	< 0.0005	< 0.0005
	7/21/2021	N/A	N/A	< 0.0005	N/A	N/A	N/A
	4/5/2022	< 0.0005	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005
	4/5/2022	N/A	N/A	N/A	< 0.002	N/A	N/A
	7/14/2023	< 0.0005	< 0.0005	< 0.0005	0.000246*	< 0.0005	< 0.0005
	7/14/2023	N/A	N/A	N/A	N/A	< 0.0005	N/A
	6/3/2024	< 0.0005	0.000304*	< 0.0005	0.000344*	< 0.0005	< 0.0005
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.0005
Mercury, mg/L (CAS NO - 7439-97-6)	3/18/2011	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A
	3/26/2012	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A
	4/16/2013	< 0.0005	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.0005	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A
	4/5/2022	< 0.0002	< 0.0002	N/A	N/A	< 0.0002	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	3/29/2010	**0.0052**	**0.0188**	**0.0171**	**0.0207**	**0.0165**	**0.0098**
	9/8/2010	**0.0053**	**0.0253**	**0.0245**	**0.0202**	**0.019**	**0.0157**
	3/18/2011	< 0.008	**0.02**	**0.0193**	**0.0283**	**0.0219**	**0.0149**
	9/8/2011	**0.0083**	**0.0213**	**0.0233**	**0.0271**	**0.0218**	**0.0149**
	3/26/2012	**0.0098**	**0.0157**	**0.0157**	**0.0147**	**0.0559**	**0.0093**
	8/21/2012	**0.0061**	**0.0147**	**0.0155**	**0.0241**	**0.0262**	**0.011**
	4/16/2013	< 0.004	**0.0118**	**0.0068**	**0.014**	**0.0154**	**0.0048**
	9/16/2013	**0.0051**	**0.0081**	**0.006**	**0.0084**	**0.0186**	< 0.004
	4/1/2014	< 0.004	**0.013**	**0.008**	< 0.004	**0.0179**	**0.0042**
	9/25/2014	0.0069	0.0257	0.0045	0.0043	0.0331	< 0.004
	3/14/2015	0.0066	0.0134	< 0.004	0.0048	0.015	0.0115
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	**0.0123**	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	**0.0206**	< 0.004
	8/23/2016	< 0.004	**0.0089**	< 0.004	< 0.004	**0.0157**	**0.005**
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	**0.0216**	< 0.004
	10/9/2017	< 0.004	**0.0058**	< 0.004	< 0.004	**0.0199**	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	**0.0109**	< 0.004
	9/11/2018	< 0.004	< 0.004	**0.004**	< 0.004	**0.0161**	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	**0.0096**	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	**0.0155**	**0.0049**
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	**0.0126**	< 0.004
	7/21/2021	< 0.005	0.00283*	0.00256*	0.00338*	**0.0221**	**0.00553**
	7/21/2021	N/A	N/A	< 0.005	N/A	N/A	N/A
	4/5/2022	< 0.005	**0.00584**	0.00246*	0.00988*	**0.00923**	0.0031*
	4/5/2022	N/A	N/A	N/A	0.00904*	N/A	N/A
	7/14/2023	< 0.005	0.0022*	< 0.005	**0.00512**	**0.0281**	**0.00894**
	7/14/2023	N/A	N/A	N/A	N/A	**0.03**	N/A
	6/3/2024	< 0.005	**0.00509**	< 0.005	**0.0179**	**0.00594**	0.00393*
	6/3/2024	N/A	N/A	N/A	N/A	N/A	0.00369*

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Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Selenium, mg/L (CAS NO - 7782-49-2)	3/29/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/18/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/26/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/21/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/25/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/14/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	7/21/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/21/2021	N/A	N/A	< 0.005	N/A	N/A	N/A
	4/5/2022	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.005
	4/5/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/14/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/14/2023	N/A	N/A	N/A	N/A	< 0.005	N/A
	6/3/2024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Silver, mg/L (CAS NO - 7440-22-4)	3/29/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/18/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/26/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/21/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/25/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/14/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/15/2020	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	7/21/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/21/2021	N/A	N/A	< 0.001	N/A	N/A	N/A
	4/5/2022	< 0.001	< 0.001	< 0.001	< 0.004	< 0.001	< 0.001
	4/5/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	7/14/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/14/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	6/3/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.001

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Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Thallium, mg/L (CAS NO - 7440-28-0)	3/29/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/18/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/8/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/26/2012	< 0.002	**0.0034**	< 0.002	< 0.002	< 0.002	< 0.002
	8/21/2012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/16/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/16/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/1/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/25/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/14/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2015	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/11/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	8/23/2016	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/11/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/9/2017	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/5/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/11/2018	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/28/2019	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/23/2019	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/15/2020	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	7/21/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/21/2021	N/A	N/A	< 0.001	N/A	N/A	N/A
	4/5/2022	< 0.001	< 0.001	< 0.001	< 0.004	< 0.001	< 0.001
	4/5/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	7/14/2023	< 0.001	0.000306*	< 0.001	< 0.001	< 0.001	< 0.001
	7/14/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	6/3/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.001
Tin, mg/L (CAS NO - 7440-31-5)	3/18/2011	N/A	< 0.02	N/A	N/A	< 0.02	N/A
	3/26/2012	N/A	< 0.02	N/A	N/A	< 0.02	N/A
	4/16/2013	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.02	N/A	N/A	< 0.02	N/A
	4/5/2022	< 0.005	< 0.005	N/A	N/A	< 0.005	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	3/29/2010	**0.0136**	**0.0334**	**0.0333**	< 0.01	< 0.01	**0.0114**
	9/8/2010	< 0.01	**0.0308**	**0.033**	< 0.01	< 0.01	< 0.01
	3/18/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/8/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2012	< 0.02	< 0.02	**0.0208**	< 0.02	< 0.02	< 0.02
	8/21/2012	< 0.02	< 0.02	**0.0212**	< 0.02	< 0.02	< 0.02
	4/16/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/16/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/1/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/25/2014	< 0.02	0.027	< 0.02	< 0.02	< 0.02	< 0.02
	3/14/2015	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/16/2015	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/11/2016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/23/2016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/11/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/9/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/5/2018	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/11/2018	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/28/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/23/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/15/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/21/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/21/2021	N/A	N/A	< 0.005	N/A	N/A	N/A
	4/5/2022	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.005
	4/5/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/14/2023	< 0.005	< 0.005	< 0.005	0.00123*	< 0.005	0.00148*
	7/14/2023	N/A	N/A	N/A	N/A	< 0.005	N/A
	6/3/2024	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.005

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Total Metals Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Zinc, mg/L (CAS NO - 7440-66-6)	3/29/2010	< 0.01	**0.0259**	**0.0205**	< 0.01	< 0.01	< 0.01
	9/8/2010	< 0.01	**0.0377**	**0.0296**	< 0.01	< 0.01	< 0.01
	3/18/2011	< 0.008	**0.012**	**0.01**	< 0.008	< 0.008	< 0.008
	9/8/2011	**0.008**	**0.0295**	**0.0267**	**0.013**	< 0.008	< 0.008
	3/26/2012	**0.0319**	**0.0425**	**0.0209**	< 0.008	**0.0299**	**0.0103**
	8/21/2012	**0.0112**	**0.0259**	**0.023**	**0.0152**	**0.0107**	**0.0145**
	4/16/2013	**0.0113**	**0.019**	**0.009**	**0.0086**	< 0.008	< 0.008
	9/16/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/1/2014	**0.0405**	**0.131**	**0.0198**	< 0.008	**0.0163**	**0.0098**
	9/25/2014	0.0142	0.031	0.0092	< 0.008	0.0098	< 0.008
	3/14/2015	0.0219	0.0179	< 0.008	< 0.008	< 0.008	< 0.008
	9/16/2015	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	3/11/2016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/23/2016	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/11/2017	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	10/9/2017	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/5/2018	< 0.008	**0.021**	< 0.008	< 0.008	< 0.008	< 0.008
	9/11/2018	**0.0304**	**0.0203**	< 0.02	< 0.02	< 0.02	< 0.02
	3/28/2019	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	9/23/2019	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	4/15/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/21/2021	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/21/2021	N/A	N/A	< 0.02	N/A	N/A	N/A
	4/5/2022	< 0.02	< 0.02	< 0.02	< 0.08	< 0.02	< 0.02
	4/5/2022	N/A	N/A	N/A	< 0.08	N/A	N/A
	7/14/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/14/2023	N/A	N/A	N/A	N/A	< 0.02	N/A
	6/3/2024	< 0.02	< 0.02	0.0106*	0.0111*	< 0.02	< 0.02
	6/3/2024	N/A	N/A	N/A	N/A	N/A	< 0.02
Total Suspended Solids, mg/L (CAS NO - TSS)	9/25/2014	112	427	19	7	38	35
	3/14/2015	199	259	32	15	85	49
	3/11/2016	< 2	**17**	**3**	**4**	**33**	**2**
	8/23/2016	**5**	**29**	**5**	**2**	**98**	**4**
	4/11/2017	**48**	**145**	**25**	**56**	**43**	**127**
	10/9/2017	**3**	**25**	< 2	**4**	**7**	< 2
	4/5/2018	**2**	**40**	**4**	< 2	**8**	< 2
	9/11/2018	**4**	**40**	**3**	**3**	**42**	**5**
	3/28/2019	< 2	**19**	**2**	**5**	**33**	< 2
	9/23/2019	**5**	**16**	**4**	**2**	**96**	**3**
	4/15/2020	**13**	**174**	**10**	**7**	**99**	**17**
	7/21/2021	**4.25**	**10.3**	**7.88**	**19.8**	**39.5**	**7.5**
	7/21/2021	N/A	N/A	**6.87**	N/A	N/A	N/A
	4/5/2022	< 1.88	**3.13**	**7.62**	**19**	**11**	1.38*
	4/5/2022	N/A	N/A	N/A	**27.3**	N/A	N/A
	7/14/2023	1.13*	**3.5**	0.75*	**10.6**	**24**	1.25*
	7/14/2023	N/A	N/A	N/A	N/A	**77**	N/A
	6/3/2024	< 1.88	**58.2**	< 1.88	**45.3**	**6.67**	**9.12**
	6/3/2024	N/A	N/A	N/A	N/A	N/A	**6.75**

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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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	1.4
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	1.2
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	1.1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	0.233*	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 2	< 2	N/A	N/A	< 2	N/A
	4/5/2022	< 2	< 2	N/A	N/A	< 2	N/A
	7/14/2023	< 2	< 2	N/A	N/A	< 2	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 2	N/A
	6/3/2024	< 2	< 2	N/A	N/A	< 2	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	0.828*	N/A	N/A	< 1	N/A
	4/5/2022	< 1	1.17	N/A	N/A	< 1	N/A
	7/14/2023	< 1	0.883*	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
2-Hexanone, ug/L (CAS NO - 591-78-6)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Acetone, ug/L (CAS NO - 67-64-1)	3/29/2010	< 10	< 10	< 10	< 10	< 10	< 10
	9/8/2010	< 10	< 10	< 10	< 10	< 10	< 10
	3/18/2011	< 10	< 10	< 10	< 10	< 10	< 10
	9/8/2011	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2012	< 10	< 10	< 10	< 10	< 10	< 10
	8/21/2012	< 10	< 10	< 10	< 10	< 10	< 10
	4/16/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/16/2013	< 10	< 10	< 10	< 10	< 10	< 10
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 10
	4/1/2014	< 10	< 10	< 10	< 10	< 10	< 10
	9/25/2014	< 10	< 10	< 10	< 10	< 10	< 10
	3/14/2015	< 10	< 10	< 10	< 10	< 10	< 10
	9/16/2015	< 10	< 10	< 10	< 10	< 10	< 10
	3/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	8/23/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2017	< 10	< 10	< 10	< 10	< 10	< 10
	10/9/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/5/2018	< 10	< 10	< 10	< 10	< 10	< 10
	9/11/2018	< 10	< 10	< 10	< 10	< 10	< 10
	3/28/2019	< 10	< 10	< 10	< 10	< 10	< 10
	9/23/2019	< 10	< 10	< 10	< 10	< 10	< 10
	4/15/2020	< 10	< 10	< 10	< 10	< 10	< 10
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Benzene, ug/L (CAS NO - 71-43-2)	3/17/2009	N/A	N/A	N/A	N/A	**1.9**	N/A
	3/29/2010	< 1	< 1	< 1	< 1	**2.2**	< 1
	9/8/2010	< 1	< 1	< 1	< 1	**1.7**	< 1
	3/18/2011	< 1	< 1	< 1	< 1	**1.8**	< 1
	9/8/2011	< 1	< 1	< 1	< 1	**2.2**	< 1
	3/26/2012	< 1	< 1	< 1	< 1	**1**	< 1
	8/21/2012	< 1	< 1	< 1	< 1	**1.8**	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	**1.3**	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	**1**	< 1
	9/16/2015	< 1	< 1	< 1	< 1	**1.1**	< 1
	3/11/2016	< 1	< 1	< 1	< 1	**1.2**	< 1
	8/23/2016	< 1	< 1	< 1	< 1	**1.4**	< 1
	4/11/2017	< 1	< 1	< 1	< 1	**1**	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	**1.6**	< 1
	7/21/2021	< 0.5	0.237*	N/A	N/A	**1.55**	N/A
	4/5/2022	< 0.5	< 0.5	N/A	N/A	0.269*	N/A
	7/14/2023	< 0.5	< 0.5	N/A	N/A	**0.868**	N/A
	7/14/2023	N/A	N/A	N/A	N/A	**0.794**	N/A
	6/3/2024	< 0.5	< 0.5	N/A	N/A	0.287*	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Bromomethane, ug/L (CAS NO - 74-83-9)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 4	< 4	N/A	N/A	< 4	N/A
	4/5/2022	< 4	< 4	N/A	N/A	< 4	N/A
	7/14/2023	< 4	< 4	N/A	N/A	< 4	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 4	N/A
	6/3/2024	< 4	< 4	N/A	N/A	< 4	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 2	< 2	N/A	N/A	< 2	N/A
	4/5/2022	< 2	< 2	N/A	N/A	< 2	N/A
	7/14/2023	< 2	< 2	N/A	N/A	< 2	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 2	N/A
	6/3/2024	< 2	< 2	N/A	N/A	< 2	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	**1.1**	< 1
	3/26/2012	< 1	**1**	< 1	< 1	< 1	< 1
	8/21/2012	< 1	**1.9**	< 1	< 1	**1.2**	< 1
	4/16/2013	< 1	**1.4**	< 1	< 1	< 1	< 1
	9/16/2013	< 1	**1.3**	< 1	< 1	**1.2**	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	**2.2**	< 1	< 1	< 1	< 1
	9/25/2014	< 1	**1.9**	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	**1.2**	< 1	< 1	< 1	< 1
	3/11/2016	< 1	**2.4**	< 1	< 1	< 1	< 1
	8/23/2016	< 1	**2.1**	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	**1.6**	< 1	< 1	< 1	< 1
	4/5/2018	< 1	**2.1**	< 1	< 1	< 1	< 1
	9/11/2018	< 1	**1.5**	< 1	< 1	< 1	< 1
	3/28/2019	< 1	**2.7**	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	**1.88**	N/A	N/A	**1.08**	N/A
	4/5/2022	< 1	**3.02**	N/A	N/A	< 1	N/A
	7/14/2023	< 1	**1.7**	N/A	N/A	0.821*	N/A
	7/14/2023	N/A	N/A	N/A	N/A	0.719*	N/A
	6/3/2024	< 1	**3.03**	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	3/29/2010	< 1	< 1	< 1	< 1	**3.9**	< 1
	9/8/2010	< 1	< 1	< 1	< 1	**4.4**	< 1
	3/18/2011	< 1	< 1	< 1	< 1	**3.9**	< 1
	9/8/2011	< 1	< 1	< 1	< 1	**4.9**	**1**
	3/26/2012	< 1	< 1	< 1	< 1	**1.4**	< 1
	8/21/2012	< 1	< 1	< 1	< 1	**3.6**	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	**2.9**	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	**2**	< 1
	9/25/2014	< 1	< 1	< 1	< 1	**1.4**	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	**2.4**	< 1
	3/11/2016	< 1	< 1	< 1	< 1	**2.3**	< 1
	8/23/2016	< 1	< 1	< 1	< 1	**2.4**	< 1
	4/11/2017	< 1	< 1	< 1	< 1	**1.6**	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	**1.5**	< 1
	4/15/2020	< 1	< 1	< 1	< 1	**1.9**	< 1
	7/21/2021	< 4	< 4	N/A	N/A	2.21*	N/A
	4/5/2022	< 4	< 4	N/A	N/A	< 4	N/A
	7/14/2023	< 4	< 4	N/A	N/A	1.35*	N/A
	7/14/2023	N/A	N/A	N/A	N/A	1.26*	N/A
	6/3/2024	< 4	< 4	N/A	N/A	< 4	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Chloroform, ug/L (CAS NO - 67-66-3)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 3	< 3	N/A	N/A	< 3	N/A
	4/5/2022	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 3	N/A
	6/3/2024	< 3	< 3	N/A	N/A	< 3	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 3	< 3	N/A	N/A	< 3	N/A
	4/5/2022	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 3	N/A
	6/3/2024	< 3	< 3	N/A	N/A	< 3	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	3/29/2010	< 1	8.4	< 1	< 1	1.2	< 1
	9/8/2010	< 1	9	< 1	< 1	2.1	< 1
	3/18/2011	< 1	8.2	< 1	< 1	1.6	< 1
	9/8/2011	< 1	9.8	< 1	< 1	3.7	< 1
	3/26/2012	< 1	8.1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	14.4	< 1	< 1	2.9	< 1
	4/16/2013	< 1	6.8	< 1	< 1	< 1	< 1
	9/16/2013	< 1	6.1	< 1	< 1	2	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	1.7	11.8	< 1	< 1	1.4	< 1
	9/25/2014	< 1	9.3	< 1	< 1	< 1	< 1
	3/14/2015	< 1	1.8	< 1	< 1	1.4	< 1
	9/16/2015	< 1	3.6	< 1	< 1	1.4	< 1
	3/11/2016	< 1	9.3	< 1	< 1	1.2	< 1
	8/23/2016	< 1	6.7	< 1	< 1	1.7	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	5.1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	6.3	< 1	< 1	< 1	< 1
	9/11/2018	< 1	5.2	< 1	< 1	< 1	< 1
	3/28/2019	< 1	7.5	< 1	< 1	< 1	< 1
	9/23/2019	< 1	3.4	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	4.29	N/A	N/A	1.85	N/A
	4/5/2022	0.576*	6.23	N/A	N/A	0.319*	N/A
	7/14/2023	1.75	3.51	N/A	N/A	0.714*	N/A
	7/14/2023	N/A	N/A	N/A	N/A	0.794*	N/A
	6/3/2024	2.51	6.21	N/A	N/A	0.25*	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Methylene Bromide, ug/L (CAS NO - 74-95-3)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Styrene, ug/L (CAS NO - 100-42-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	**1.3**	< 1	< 1	< 1	< 1	< 1
	8/21/2012	**1**	< 1	< 1	< 1	< 1	< 1
	4/16/2013	**2.6**	< 1	< 1	< 1	< 1	< 1
	9/16/2013	**1.8**	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	**2.4**	< 1	< 1	< 1	< 1	< 1
	9/25/2014	**1.5**	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	**1.6**	< 1	< 1	< 1	< 1	< 1
	7/13/2017	< 1	N/A	N/A	N/A	N/A	N/A
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	**1.7**	< 1	< 1	< 1	< 1	< 1
	4/23/2018	**1.7**	N/A	N/A	N/A	N/A	N/A
	9/11/2018	**1.5**	**1**	< 1	< 1	< 1	< 1
	11/1/2018	N/A	< 1	N/A	N/A	N/A	N/A
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	**1.25**	< 1	N/A	N/A	< 1	N/A
	4/5/2022	**1.4**	< 1	N/A	N/A	< 1	N/A
	7/14/2023	**1.74**	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	**1.75**	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Toluene, ug/L (CAS NO - 108-88-3)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 5	< 5	N/A	N/A	< 5	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	< 5	< 5	N/A	N/A	< 5	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 5	N/A
	6/3/2024	< 5	< 5	N/A	N/A	< 5	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Trichloroethene, ug/L (CAS NO - 79-01-6)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 1	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	< 1	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 4	< 4	N/A	N/A	< 4	N/A
	4/5/2022	< 4	< 4	N/A	N/A	< 4	N/A
	7/14/2023	< 4	< 4	N/A	N/A	< 4	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 4	N/A
	6/3/2024	< 4	< 4	N/A	N/A	< 4	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	3/29/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/18/2011	< 5	< 5	< 5	< 5	< 5	< 5
	9/8/2011	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2012	< 5	< 5	< 5	< 5	< 5	< 5
	8/21/2012	< 5	< 5	< 5	< 5	< 5	< 5
	4/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2013	< 5	< 5	< 5	< 5	< 5	< 5
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 5
	4/1/2014	< 5	< 5	< 5	< 5	< 5	< 5
	9/25/2014	< 5	< 5	< 5	< 5	< 5	< 5
	3/14/2015	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2015	< 5	< 5	< 5	< 5	< 5	< 5
	3/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	8/23/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2017	< 5	< 5	< 5	< 5	< 5	< 5
	10/9/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/5/2018	< 5	< 5	< 5	< 5	< 5	< 5
	9/11/2018	< 5	< 5	< 5	< 5	< 5	< 5
	3/28/2019	< 5	< 5	< 5	< 5	< 5	< 5
	9/23/2019	< 5	< 5	< 5	< 5	< 5	< 5
	4/15/2020	< 5	< 5	< 5	< 5	< 5	< 5
	7/21/2021	< 10	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	< 10	< 10	N/A	N/A	< 10	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 10	N/A
	6/3/2024	< 10	< 10	N/A	N/A	< 10	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	3/29/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/18/2011	< 1	< 1	< 1	< 1	< 1	< 1
	9/8/2011	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2012	< 1	< 1	< 1	< 1	< 1	< 1
	8/21/2012	< 1	< 1	< 1	< 1	< 1	< 1
	4/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2013	< 1	< 1	< 1	< 1	< 1	< 1
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 1
	4/1/2014	< 1	< 1	< 1	< 1	< 1	< 1
	9/25/2014	< 1	< 1	< 1	< 1	< 1	< 1
	3/14/2015	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2015	< 1	< 1	< 1	< 1	< 1	< 1
	3/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	8/23/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2017	< 1	< 1	< 1	< 1	1.2	< 1
	10/9/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/5/2018	< 1	< 1	< 1	< 1	< 1	< 1
	9/11/2018	< 1	< 1	< 1	< 1	< 1	< 1
	3/28/2019	< 1	< 1	< 1	< 1	< 1	< 1
	9/23/2019	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/2020	< 1	< 1	< 1	< 1	< 1	< 1
	7/21/2021	< 1	< 1	N/A	N/A	0.183*	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
	7/14/2023	< 1	< 1	N/A	N/A	0.209*	N/A
	7/14/2023	N/A	N/A	N/A	N/A	0.227*	N/A
	6/3/2024	< 1	< 1	N/A	N/A	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/29/2010	< 2	< 2	< 2	< 2	< 2	< 2
	9/8/2010	< 2	< 2	< 2	< 2	< 2	< 2
	3/18/2011	< 2	< 2	< 2	< 2	< 2	< 2
	9/8/2011	< 2	< 2	< 2	< 2	< 2	< 2
	3/26/2012	< 2	< 2	< 2	< 2	< 2	< 2
	8/21/2012	< 2	< 2	< 2	< 2	< 2	< 2
	4/16/2013	< 2	< 2	< 2	< 2	< 2	< 2
	9/16/2013	< 2	< 2	< 2	< 2	< 2	< 2
	11/29/2013	N/A	N/A	N/A	N/A	N/A	< 2
	4/1/2014	< 2	< 2	< 2	< 2	< 2	< 2
	9/25/2014	< 2	< 2	< 2	< 2	< 2	< 2
	3/14/2015	< 2	< 2	< 2	< 2	< 2	< 2
	9/16/2015	< 2	< 2	< 2	< 2	< 2	< 2
	3/11/2016	< 2	< 2	< 2	< 2	< 2	< 2
	8/23/2016	< 2	< 2	< 2	< 2	< 2	< 2
	4/11/2017	< 2	< 2	< 2	< 2	< 2	< 2
	10/9/2017	< 2	< 2	< 2	< 2	< 2	< 2
	4/5/2018	< 2	< 2	< 2	< 2	< 2	< 2
	9/11/2018	< 2	< 2	< 2	< 2	< 2	< 2
	3/28/2019	< 2	< 2	< 2	< 2	< 2	< 2
	9/23/2019	< 2	< 2	< 2	< 2	< 2	< 2
	4/15/2020	< 2	< 2	< 2	< 2	< 2	< 2
	7/21/2021	< 3	< 3	N/A	N/A	< 3	N/A
	4/5/2022	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	< 3	< 3	N/A	N/A	< 3	N/A
	7/14/2023	N/A	N/A	N/A	N/A	< 3	N/A
	6/3/2024	< 3	< 3	N/A	N/A	< 3	N/A

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

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

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

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

Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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

Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 4	< 4	N/A	N/A	< 4	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	3/18/2011	N/A	< 0.7	N/A	N/A	< 0.6	N/A
	3/26/2012	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/16/2013	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/5/2022	< 0.986	< 0.979	N/A	N/A	< 0.964	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/18/2011	N/A	< 0.7	N/A	N/A	< 0.6	N/A
	3/26/2012	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/16/2013	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/5/2022	< 0.986	< 0.979	N/A	N/A	< 0.964	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/18/2011	N/A	< 2.8	N/A	N/A	< 2.6	N/A
	3/26/2012	N/A	< 2	N/A	N/A	< 2	N/A
	4/16/2013	< 2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 3.2	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 2	N/A	N/A	< 2	N/A
	4/5/2022	< 0.986	< 0.979	N/A	N/A	< 0.964	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 18.5	< 20	N/A	N/A	< 20	N/A

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

Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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

Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 2	< 2	N/A	N/A	< 2	N/A
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4,4`-DDD, ug/L (CAS NO - 72-54-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
4,4`-DDE, ug/L (CAS NO - 72-55-9)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
4,4`-DDT, ug/L (CAS NO - 50-29-3)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Acenaphthene, ug/L (CAS NO - 83-32-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Acenaphthylene, ug/L (CAS NO - 208-96-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Acetonitrile, ug/L (CAS NO - 75-05-8)	3/18/2011	N/A	< 10	N/A	N/A	< 10	N/A
	3/26/2012	N/A	< 10	N/A	N/A	< 10	N/A
	4/16/2013	< 10	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 10	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10000	< 10000	N/A	N/A	< 10000	N/A
Acetophenone, ug/L (CAS NO - 98-86-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Acrolein, ug/L (CAS NO - 107-02-8)	3/18/2011	N/A	< 10	N/A	N/A	< 10	N/A
	3/26/2012	N/A	< 10	N/A	N/A	< 10	N/A
	4/16/2013	< 10	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 10	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
Aldrin, ug/L (CAS NO - 309-00-2)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Anthracene, ug/L (CAS NO - 120-12-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Alpha-BHC, ug/L (CAS NO - 319-84-6)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Beta-BHC, ug/L (CAS NO - 319-85-7)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Delta-BHC, ug/L (CAS NO - 319-86-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	17	N/A	N/A	< 8	N/A
	8/21/2012	N/A	< 10	N/A	N/A	N/A	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	69	N/A	N/A	N/A	N/A	N/A
	9/25/2014	< 10	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Chlordane, ug/L (CAS NO - 57-74-9)	3/18/2011	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	3/26/2012	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/16/2013	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/5/2022	< 2	< 2.5	N/A	N/A	< 2	N/A
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Chloroprene, ug/L (CAS NO - 126-99-8)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
Chrysene, ug/L (CAS NO - 218-01-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Cyanide, mg/L (CAS NO - 57-12-5)	3/18/2011	N/A	< 0.007	N/A	N/A	< 0.007	N/A
	3/26/2012	N/A	< 0.007	N/A	N/A	< 0.007	N/A
	4/16/2013	< 0.007	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.005	N/A	N/A	< 0.005	N/A
	4/5/2022	< 0.01	< 0.01	N/A	N/A	< 0.01	N/A
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Dibenzofuran, ug/L (CAS NO - 132-64-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 3	< 3	N/A	N/A	< 3	N/A
Dieldrin, ug/L (CAS NO - 60-57-1)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	3/18/2011	N/A	14	N/A	N/A	< 8	N/A
	9/8/2011	N/A	< 30	N/A	N/A	N/A	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	8/21/2012	N/A	< 30	N/A	N/A	N/A	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Dimethoate, ug/L (CAS NO - 60-51-5)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 18.5	< 20	N/A	N/A	< 20	N/A
Dinoseb, ug/L (CAS NO - 88-85-7)	3/18/2011	N/A	< 0.7	N/A	N/A	< 0.6	N/A
	3/26/2012	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/16/2013	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.5	N/A	N/A	< 0.5	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Diphenylamine, ug/L (CAS NO - 122-39-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Disulfoton, ug/L (CAS NO - 298-04-4)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Endosulfan I, ug/L (CAS NO - 959-98-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Endosulfan II, ug/L (CAS NO - 33213-65-9)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Endrin, ug/L (CAS NO - 72-20-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	3/18/2011	N/A	< 10	N/A	N/A	< 10	N/A
	3/26/2012	N/A	< 10	N/A	N/A	< 10	N/A
	4/16/2013	< 10	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 10	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 2	< 2	N/A	N/A	< 2	N/A
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Famphur, ug/L (CAS NO - 52-85-7)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Fluoranthene, ug/L (CAS NO - 206-44-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Fluorene, ug/L (CAS NO - 86-73-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Heptachlor, ug/L (CAS NO - 76-44-8)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Hexachloroethane, ug/L (CAS NO - 67-72-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Isobutanol, mg/L (CAS NO - 78-83-1)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Isodrin, ug/L (CAS NO - 465-73-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Isophorone, ug/L (CAS NO - 78-59-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Isosafrole, ug/L (CAS NO - 120-58-1)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Kepone, ug/L (CAS NO - 143-50-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
Methapyrilene, ug/L (CAS NO - 91-80-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Methoxychlor, ug/L (CAS NO - 72-43-5)	3/18/2011	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	3/26/2012	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/16/2013	< 0.05	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.07	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.05	N/A	N/A	< 0.05	N/A
	4/5/2022	< 0.064	< 0.08	N/A	N/A	< 0.064	N/A
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	3/18/2011	N/A	< 1	N/A	N/A	< 1	N/A
	3/26/2012	N/A	< 1	N/A	N/A	< 1	N/A
	4/16/2013	< 1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 1	N/A	N/A	< 1	N/A
	4/5/2022	< 2	< 2	N/A	N/A	< 2	N/A
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Naphthalene, ug/L (CAS NO - 91-20-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 5	< 5	N/A	N/A	< 5	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Nitrobenzene, ug/L (CAS NO - 98-95-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
O-Toluidine, ug/L (CAS NO - 95-53-4)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
PCB-1016, ug/L (CAS NO - 12674-11-2)	3/18/2011	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	3/26/2012	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/16/2013	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1221, ug/L (CAS NO - 11104-28-2)	3/18/2011	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	3/26/2012	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/16/2013	< 0.2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.26	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1232, ug/L (CAS NO - 11141-16-5)	3/18/2011	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	3/26/2012	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/16/2013	< 0.2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.26	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1242, ug/L (CAS NO - 53469-21-9)	3/18/2011	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	3/26/2012	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/16/2013	< 0.2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.26	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1248, ug/L (CAS NO - 12672-29-6)	3/18/2011	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	3/26/2012	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/16/2013	< 0.2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.26	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1254, ug/L (CAS NO - 11097-69-1)	3/18/2011	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	3/26/2012	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/16/2013	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
PCB-1260, ug/L (CAS NO - 11096-82-5)	3/18/2011	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	3/26/2012	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/16/2013	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/5/2022	< 0.8	< 1	N/A	N/A	< 0.8	N/A
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Phenanthrene, ug/L (CAS NO - 85-01-8)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Phenol, ug/L (CAS NO - 108-95-2)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Phorate, ug/L (CAS NO - 298-02-2)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Pronamide, ug/L (CAS NO - 23950-58-5)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Propionitrile, ug/L (CAS NO - 107-12-0)	3/18/2011	N/A	< 10	N/A	N/A	< 10	N/A
	3/26/2012	N/A	< 10	N/A	N/A	< 10	N/A
	4/16/2013	< 10	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 10	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 10	N/A	N/A	< 10	N/A
	4/5/2022	< 10	< 10	N/A	N/A	< 10	N/A
Pyrene, ug/L (CAS NO - 129-00-0)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Safrole, ug/L (CAS NO - 94-59-7)	3/18/2011	N/A	< 8	N/A	N/A	< 8	N/A
	3/26/2012	N/A	< 8	N/A	N/A	< 8	N/A
	4/16/2013	< 8	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 8	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 8	N/A	N/A	< 8	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A

SCS ENGINEERS

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

Other Constituents	Sample Date	MW-12 UPG	MW-3 DNG	MW-5 DNG	MW-14 DNG	MW-16 DNG	MW-19 DNG
Sulfide, mg/L (CAS NO - 18496-25-8)	3/18/2011	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	3/26/2012	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/16/2013	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.1	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.1	N/A	N/A	< 0.1	N/A
	4/5/2022	< 1	< 1	N/A	N/A	< 1	N/A
Thionazin, ug/L (CAS NO - 297-97-2)	3/18/2011	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	3/26/2012	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/16/2013	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.4	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.4	N/A	N/A	< 0.4	N/A
	4/5/2022	< 9.26	< 10	N/A	N/A	< 10	N/A
Toxaphene, ug/L (CAS NO - 8001-35-2)	3/18/2011	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	3/26/2012	N/A	< 0.2	N/A	N/A	< 0.2	N/A
	4/16/2013	< 0.2	N/A	N/A	N/A	N/A	N/A
	4/1/2014	< 0.26	N/A	N/A	N/A	N/A	N/A
	4/11/2017	N/A	< 0.2	N/A	N/A	< 0.2	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix D

2024 Statistical Method and Output

Statistical Method and Output

Purpose

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

Diagnostic and Exploratory Evaluations and Tests of Assumptions

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

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

Management of Non-Detect Data

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

Management of Outliers

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

Management of Data (ND data < 75%)

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

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

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

Management of Data (ND data ≥ 75%)

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

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

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program

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

Interwell Prediction Limits with Retesting

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

Double Quantification Rule

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

Assessment Monitoring/Corrective Action Statistical Program

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment/corrective action monitoring statistical evaluations are

performed using the most recent eight samples or all samples if less than eight samples are available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation are established using the process below. Transformation of the distribution is not considered.

Confidence Intervals or Confidence Bands

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

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

Statistical Software Output

Sanitas™ statistical software was used to perform the statistical evaluation. Listed below are the statistical outputs attached to this report for the 2024 statistical evaluation.

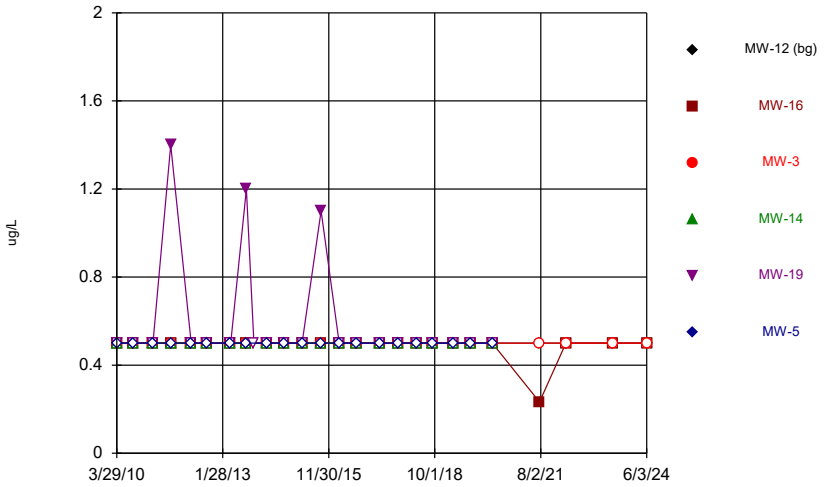
- Time Series Plots
- Outlier Tests Summary Tables and Graphs
- Interwell Prediction Limit Summary Tables and Graphs
- Mann-Kendall/Sen's Slope Trend Test Summary Table and Graphs
- Confidence Interval Summary Table and Graphs

Attachment A

Time Series Plots

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

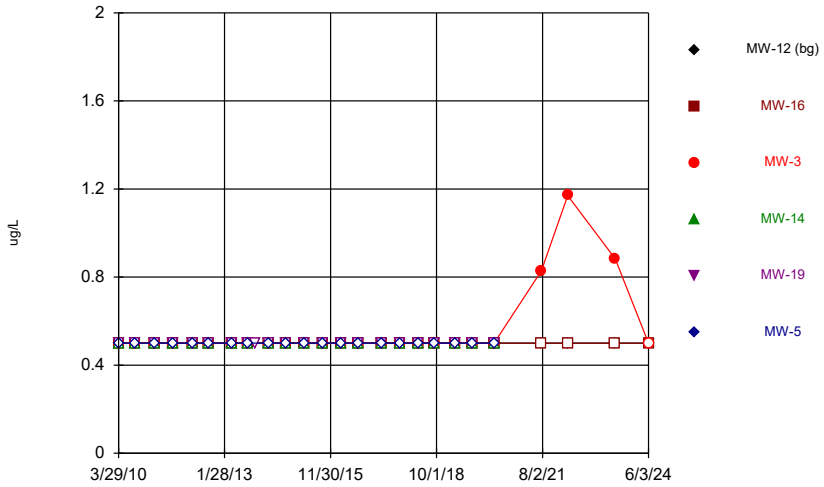
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

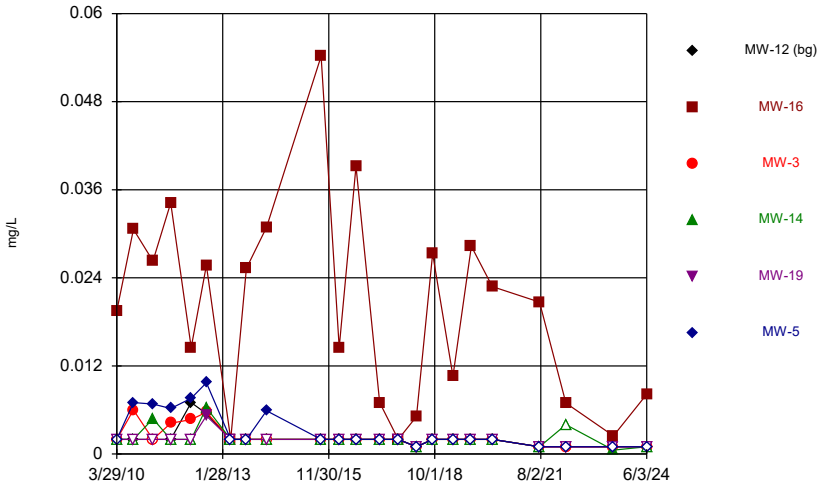
Time Series



Constituent: 1,4-Dichlorobenzene Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

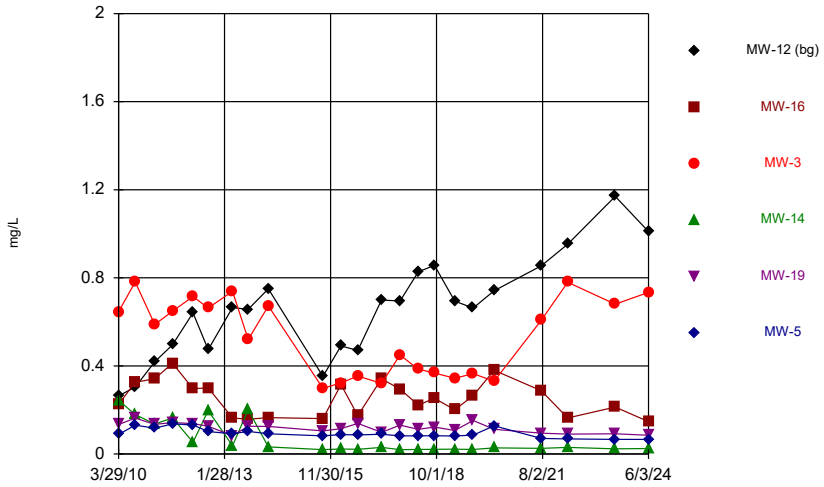
Time Series



Constituent: Arsenic Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

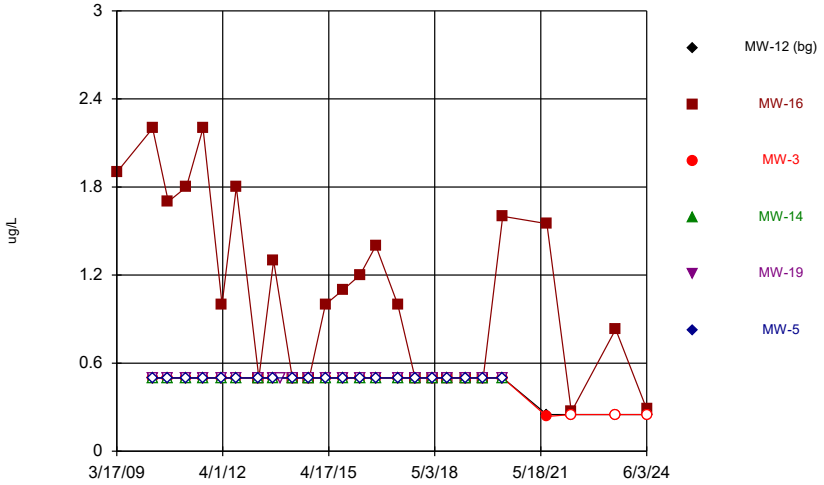
Time Series



Constituent: Barium Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

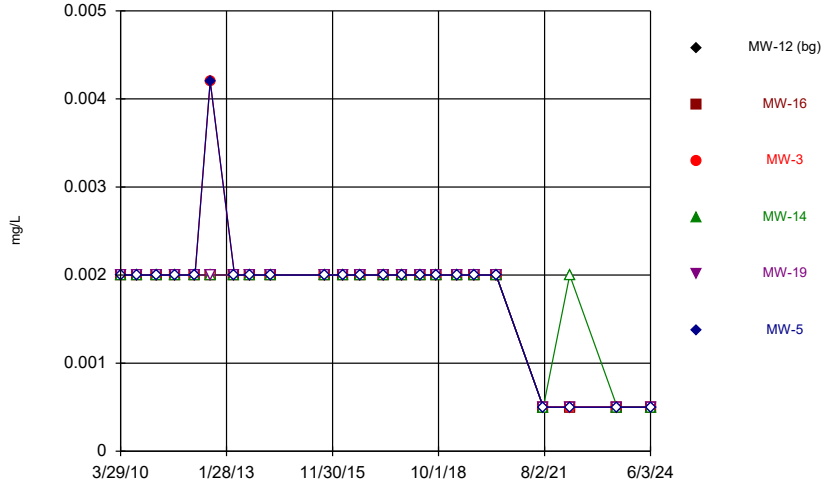
Time Series



Constituent: Benzene Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

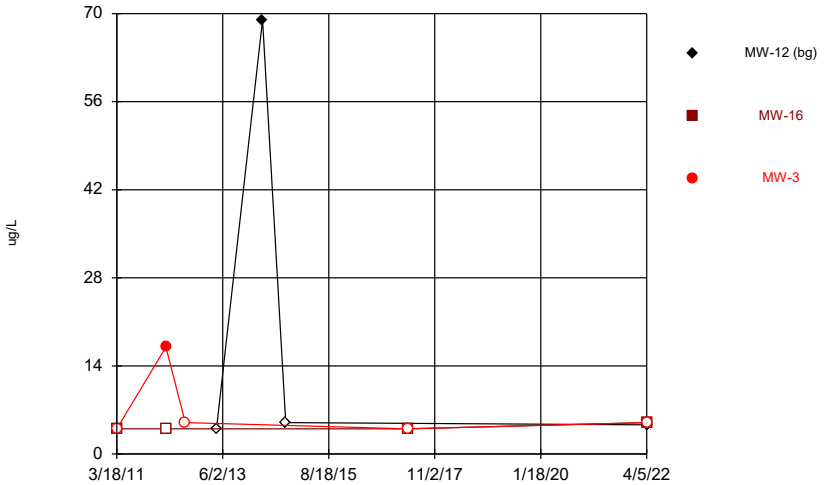
Time Series



Constituent: Beryllium Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

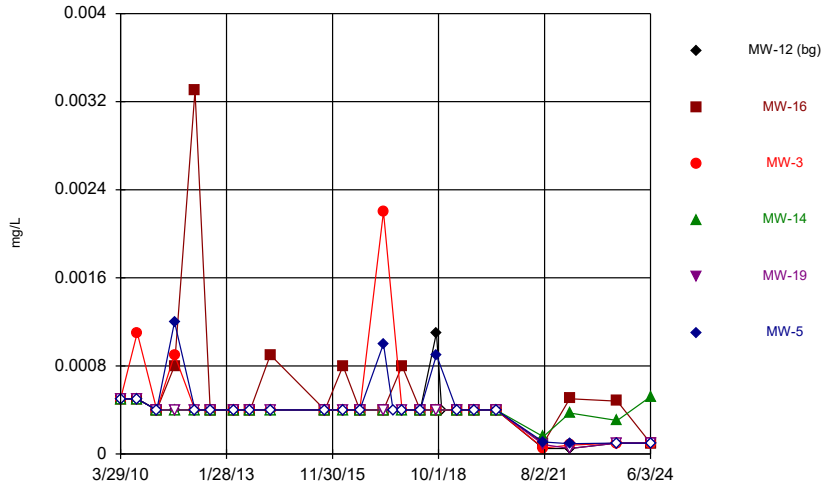
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

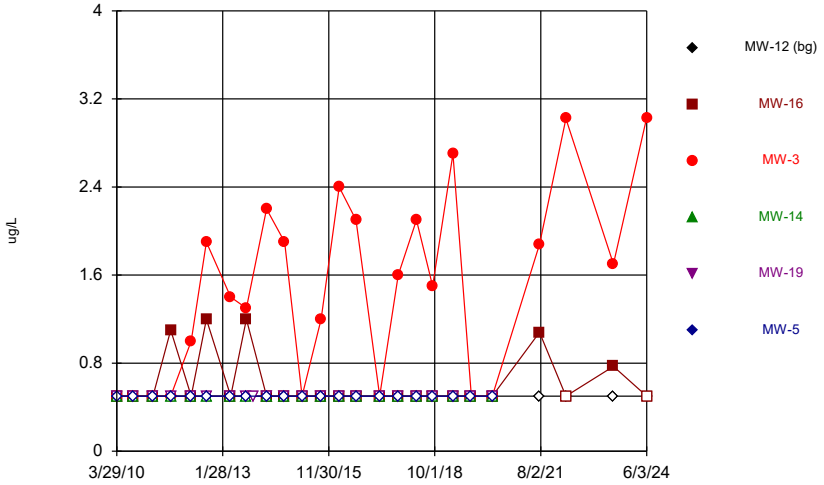
Time Series



Constituent: Cadmium Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

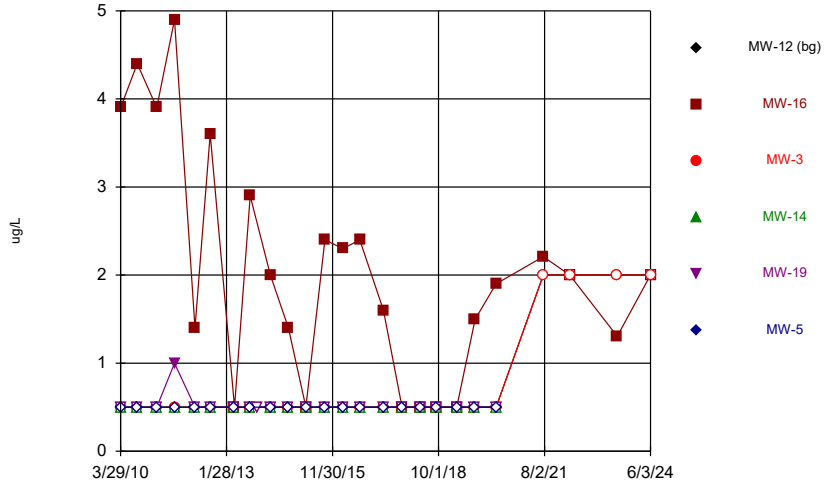
Time Series



Constituent: Chlorobenzene Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

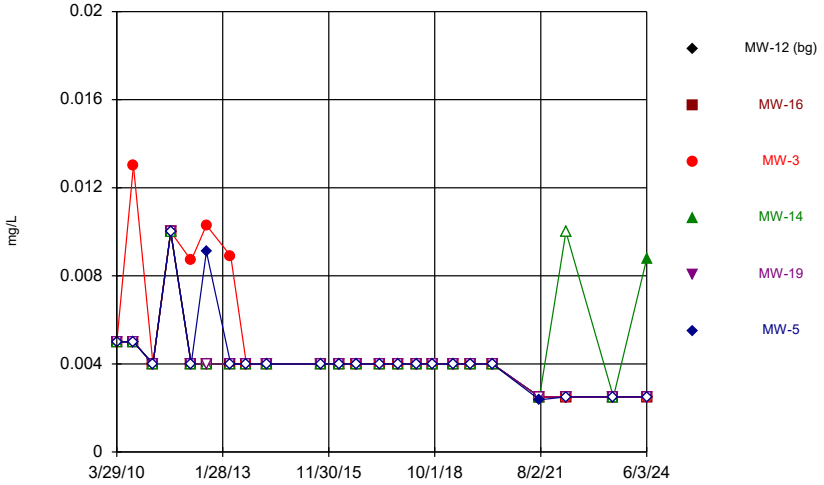
Time Series



Constituent: Chloroethane Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

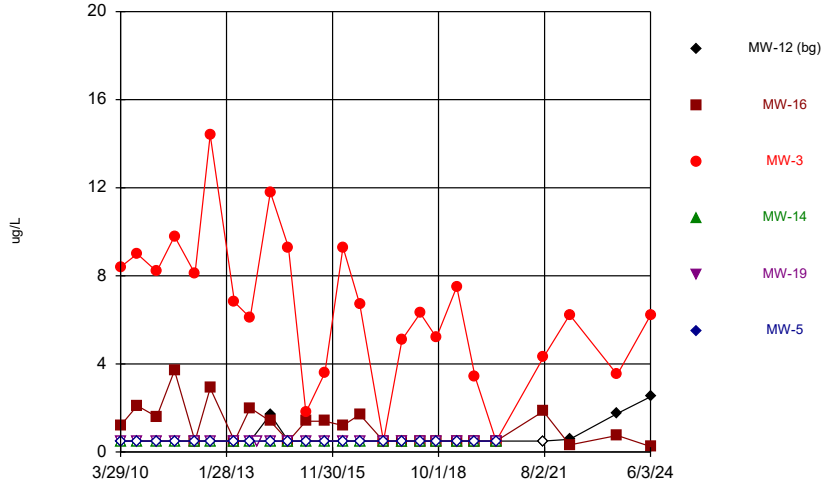
Time Series



Constituent: Chromium Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

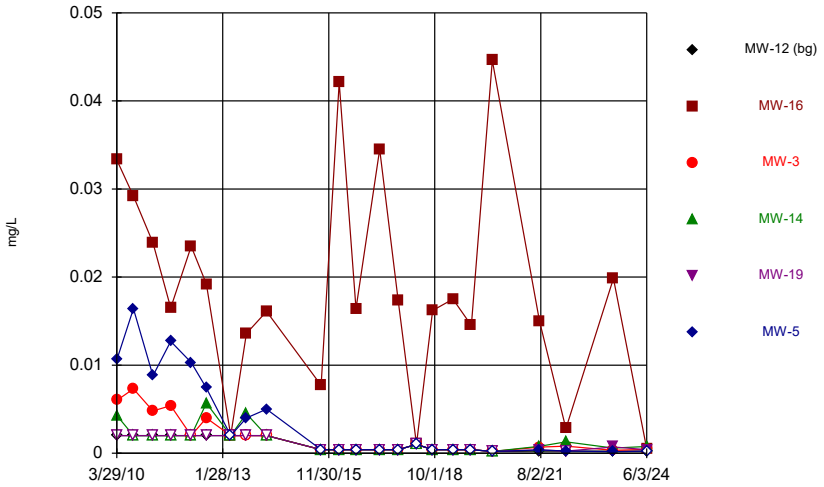
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

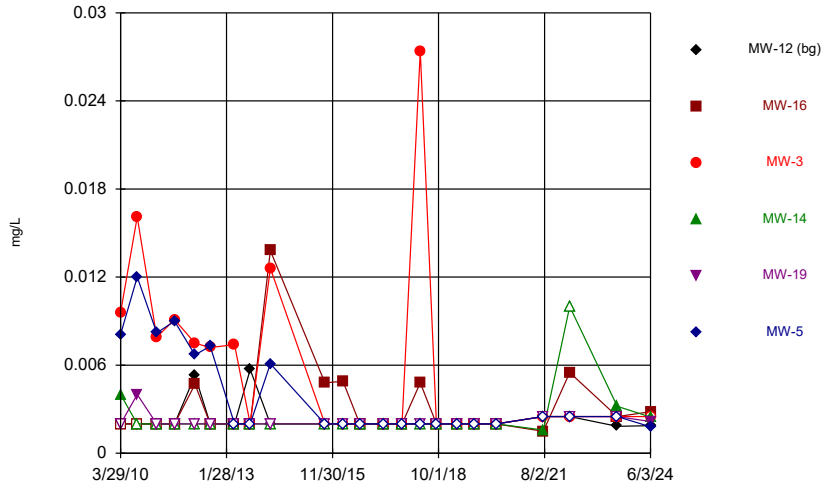
Time Series



Constituent: Cobalt Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

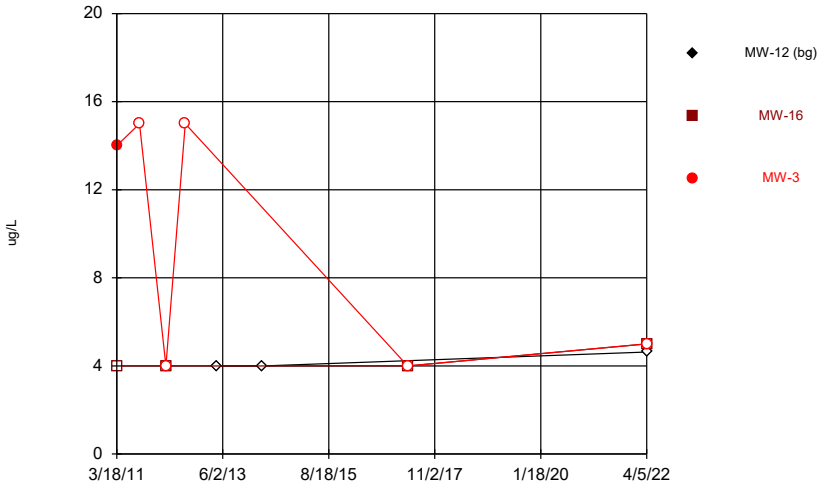
Time Series



Constituent: Copper Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

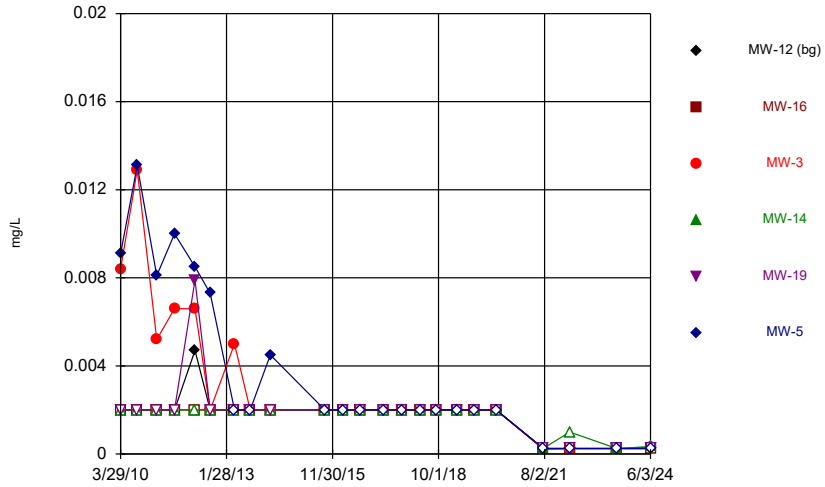
Time Series



Constituent: Diethyl phthalate Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

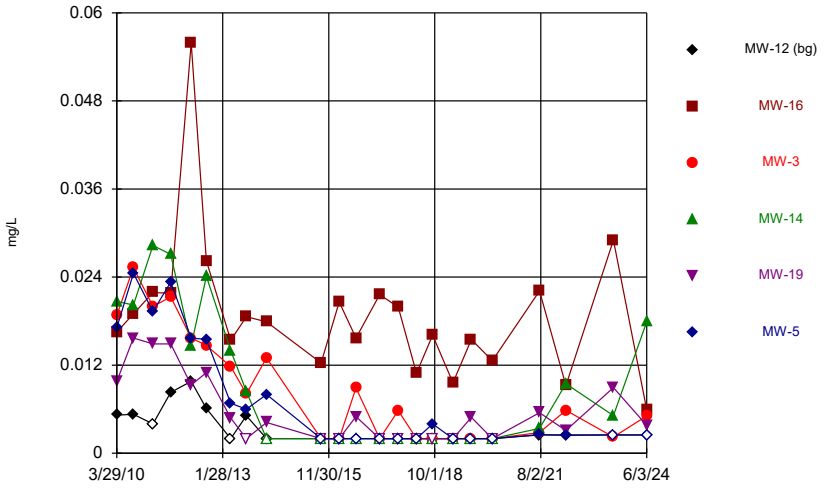
Time Series



Constituent: Lead Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

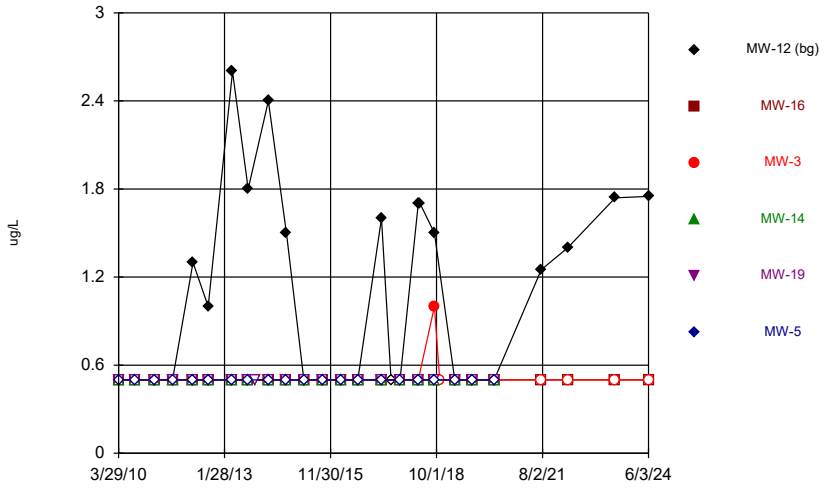
Time Series



Constituent: Nickel Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

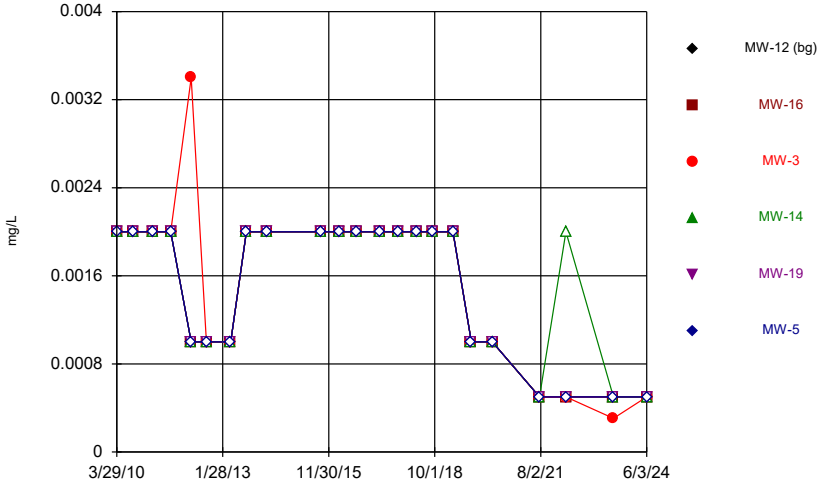
Time Series



Constituent: Tetrachloroethene Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

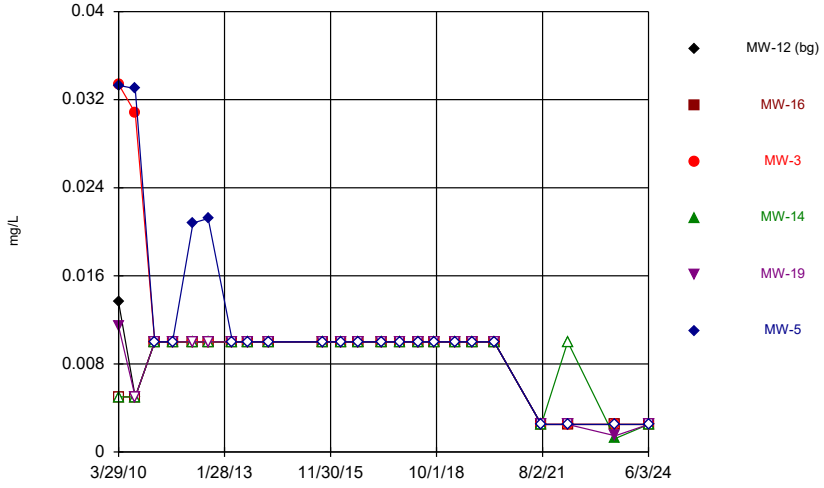
Time Series



Constituent: Thallium Analysis Run 9/24/2024 12:12 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

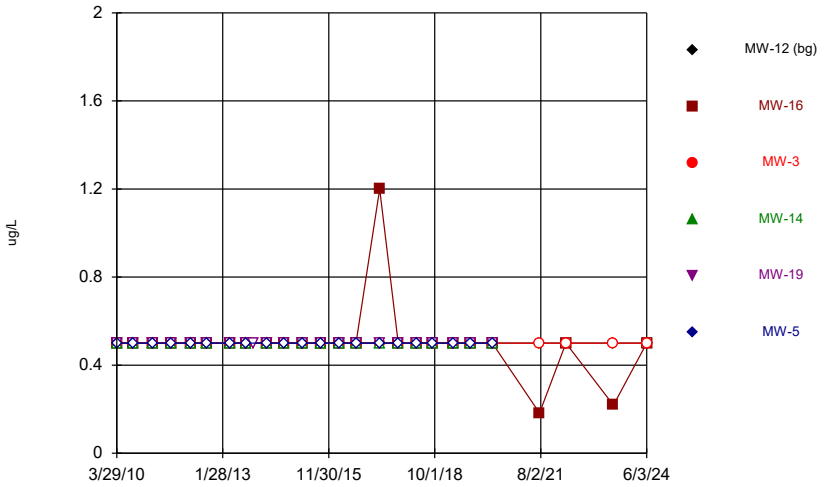
Time Series



Constituent: Vanadium Analysis Run 9/24/2024 12:13 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

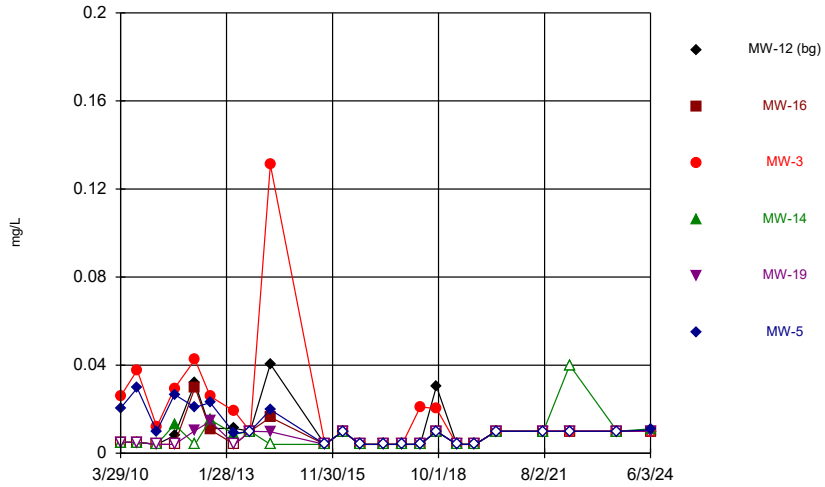
Time Series



Constituent: Vinyl Chloride Analysis Run 9/24/2024 12:13 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 9/24/2024 12:13 PM View: 2024AWQR - Time Series
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Attachment B

Outlier Tests Summary Table and Graphs

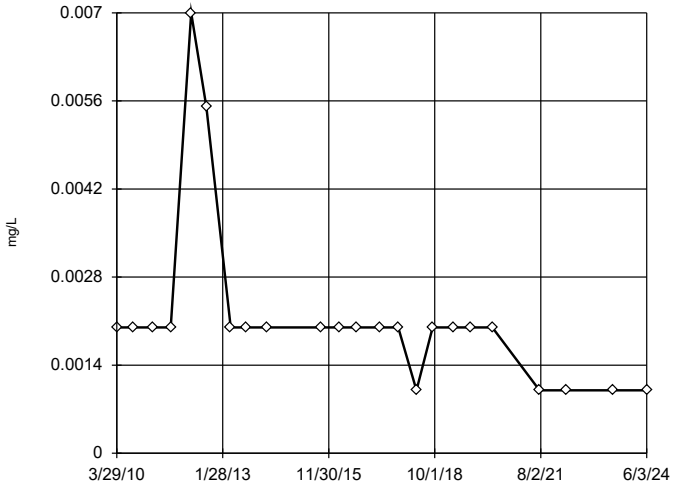
BG Outlier Analysis

Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP Printed 9/24/2024, 1:55 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Normality Test
Arsenic (mg/L)	MW-12 (bg)	No	n/a	n/a	OH	NaN	23	0.002152	0.001377	n/a
Barium (mg/L)	MW-12 (bg)	No	n/a	n/a	EPA/OH	0.05	23	0.6586	0.229	ShapiroWilk
Cadmium (mg/L)	**MW-12 (bg)**	**Yes**	**0.0011**	**9/11/2018**	**OH**	**NaN**	**24**	**0.0003833**	**0.0002009**	**n/a**
Copper (mg/L)	MW-12 (bg)	No	n/a	n/a	OH	NaN	23	0.002336	0.001012	n/a
Lead (mg/L)	**MW-12 (bg)**	**Yes**	**0.0047**	**3/26/2012**	**OH**	**NaN**	**23**	**0.001813**	**0.0009228**	**n/a**
Nickel (mg/L)	MW-12 (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	23	0.003383	0.002227	ShapiroWilk
Vanadium (mg/L)	MW-12 (bg)	No	n/a	n/a	OH	NaN	23	0.008635	0.003163	n/a
Zinc (mg/L)	MW-12 (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	23	0.01067	0.009911	ShapiroWilk

Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



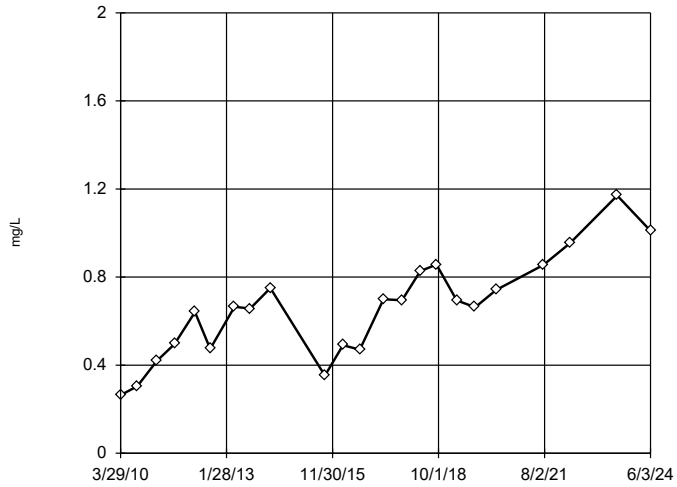
n = 23

No statistical outliers.

Constituent: Arsenic Analysis Run 9/24/2024 1:53 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

EPA Screening (suspected outliers for Rosner's Test)

MW-12 (bg)



n = 23

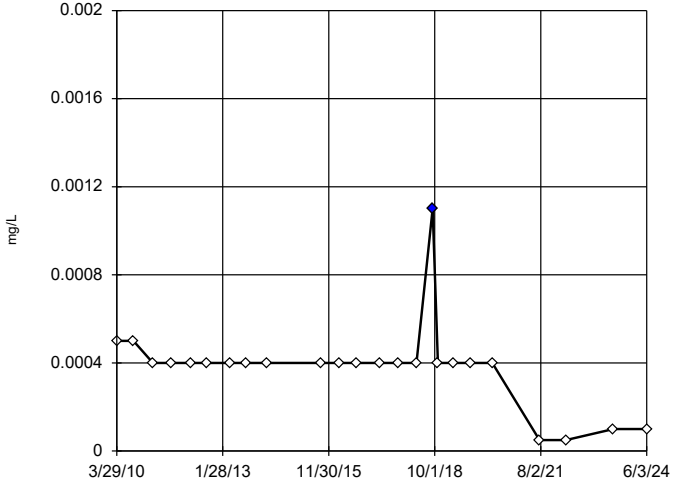
Rosner's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.6586, std. dev. 0.229, critical Tn 2.624

Normality test used:
Shapiro Wilk@alpha = 0.05
Calculated = 0.976
Critical = 0.914
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 9/24/2024 1:53 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



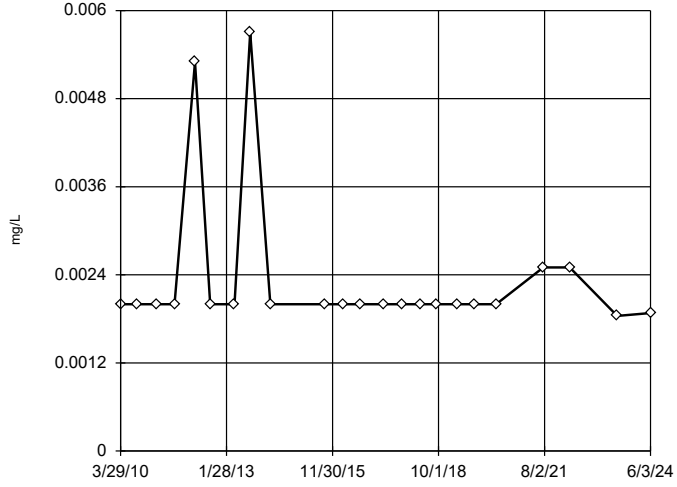
n = 24

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Cadmium Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



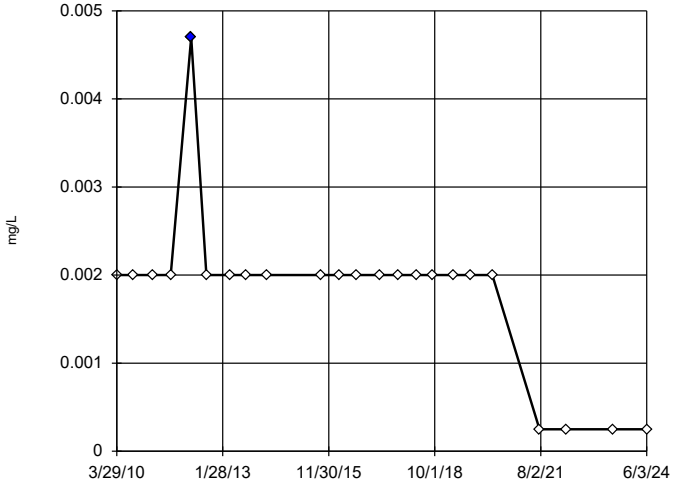
n = 23

No statistical outliers.

Constituent: Copper Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



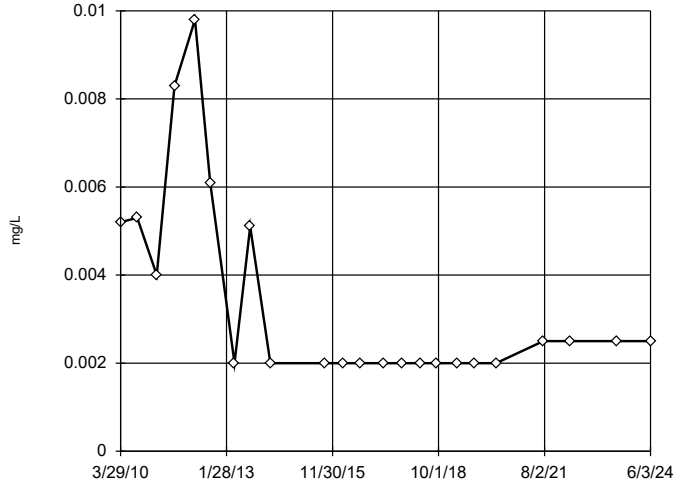
n = 23

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Lead Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



n = 23

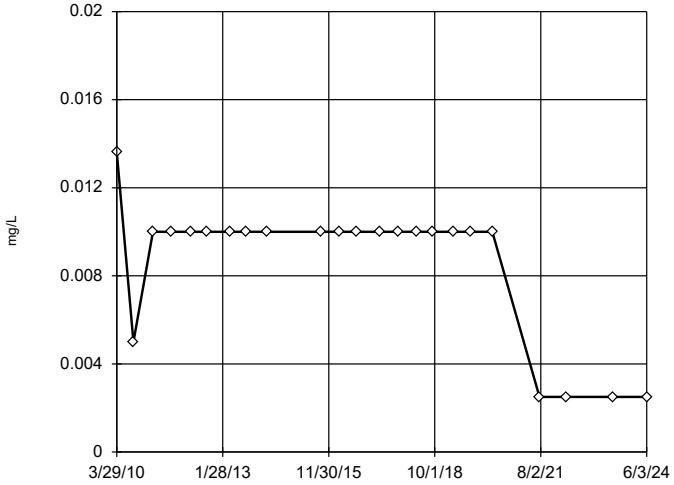
No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.05 alpha level.

High cutoff = 0.0144, low cutoff = -0.0073, based on IQR multiplier of 3.

Constituent: Nickel Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



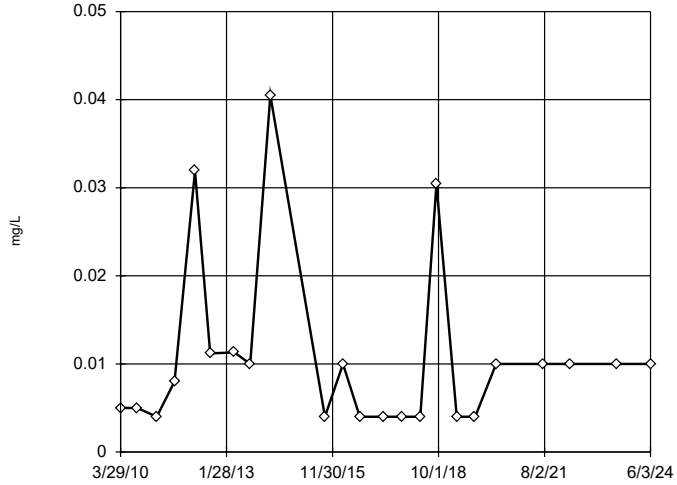
n = 23

No statistical outliers.

Constituent: Vanadium Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-12 (bg)



n = 23

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

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

Constituent: Zinc Analysis Run 9/24/2024 1:54 PM View: 2024AWQR - Outliers
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Attachment C

Prediction Limit Summary Table and Graphs

Prediction Limit

Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP Printed 9/24/2024, 3:51 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**MW-16**	**0.007**	**n/a**	**6/3/2024**	**0.00813**	**Yes**	**23**	**MW-12**	**n/a**	**n/a**	**91.3**	**n/a**	**n/a**	**0.04167**	**NP Inter (NDs)**
Barium (mg/L)	MW-16	1.245	n/a	6/3/2024	0.147	No	23	MW-12	0.6586	0.229	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-3	1.245	n/a	6/3/2024	0.734	No	23	MW-12	0.6586	0.229	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-14	1.245	n/a	6/3/2024	0.0253	No	23	MW-12	0.6586	0.229	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-19	1.245	n/a	6/3/2024	0.08545	No	23	MW-12	0.6586	0.229	0	None	No	0.01	Param Inter
Barium (mg/L)	MW-5	1.245	n/a	6/3/2024	0.0662	No	23	MW-12	0.6586	0.229	0	None	No	0.01	Param Inter
Cadmium (mg/L)	MW-14	0.0011	n/a	6/3/2024	0.000521	No	24	MW-12	n/a	n/a	95.83	n/a	n/a	0.04	NP Inter (NDs)
Nickel (mg/L)	MW-16	0.0098	n/a	6/3/2024	0.00594	No	23	MW-12	n/a	n/a	73.91	n/a	n/a	0.04004	NP Inter (NDs)
Nickel (mg/L)	MW-3	0.0098	n/a	6/3/2024	0.00509	No	23	MW-12	n/a	n/a	73.91	n/a	n/a	0.04004	NP Inter (NDs)
Nickel (mg/L)	**MW-14**	**0.0098**	**n/a**	**6/3/2024**	**0.0179**	**Yes**	**23**	**MW-12**	**n/a**	**n/a**	**73.91**	**n/a**	**n/a**	**0.04004**	**NP Inter (NDs)**

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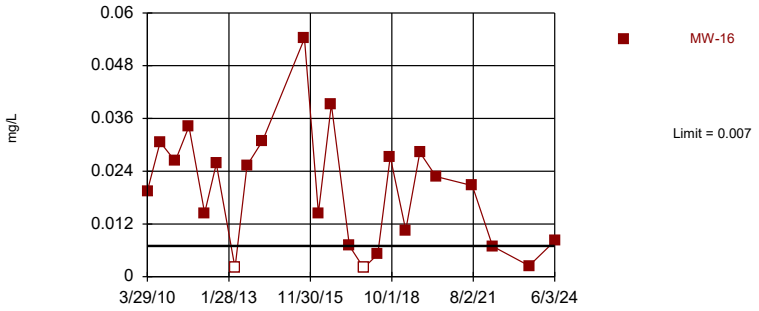
Hollow symbols indicate censored values.

Exceeds Limit: MW-16

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Report alpha = 0.04167. Most recent point compared to limit.

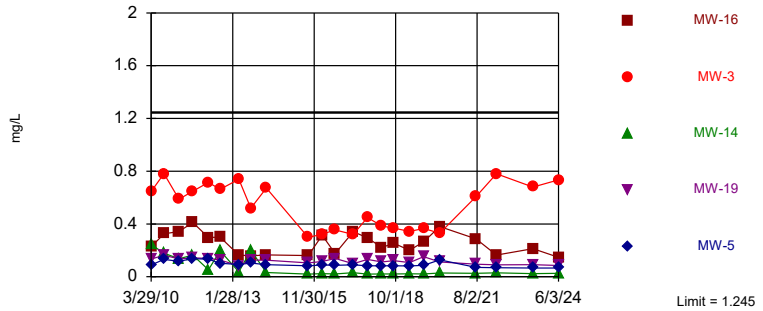
Constituent: Arsenic Analysis Run 9/24/2024 3:49 PM View: 2024AWQR - Interwell PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. EPA

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.6586, Std. Dev.=0.229, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.976, critical = 0.881. Report alpha = 0.04901. Individual comparison alpha = 0.01. Most recent point for each compliance well compared to limit.

Constituent: Barium Analysis Run 9/24/2024 3:49 PM View: 2024AWQR - Interwell PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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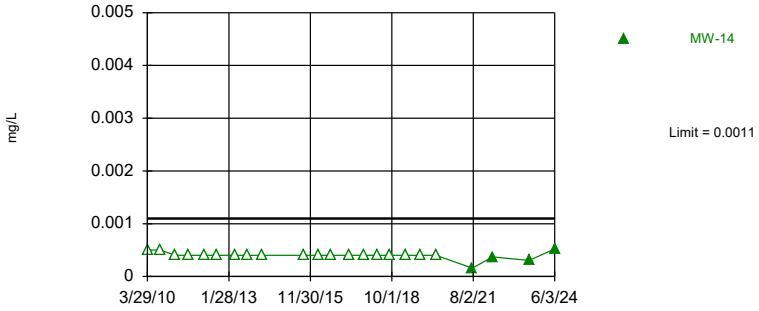
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 95.83% NDs. Report alpha = 0.04. Most recent point compared to limit.

Constituent: Cadmium Analysis Run 9/24/2024 3:49 PM View: 2024AWQR - Interwell PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

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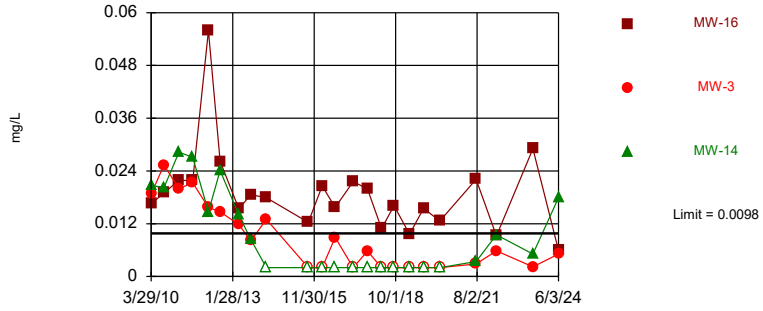
Hollow symbols indicate censored values.

Exceeds Limit: MW-14

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 73.91% NDs. Report alpha = 0.1154. Individual comparison alpha = 0.04004. Most recent point for each compliance well compared to limit.

Constituent: Nickel Analysis Run 9/24/2024 3:49 PM View: 2024AWQR - Interwell PL
Guthrie County SLF Client: SCS Engineers Data: Guthrie HMSP

Attachment D

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

Trend Test

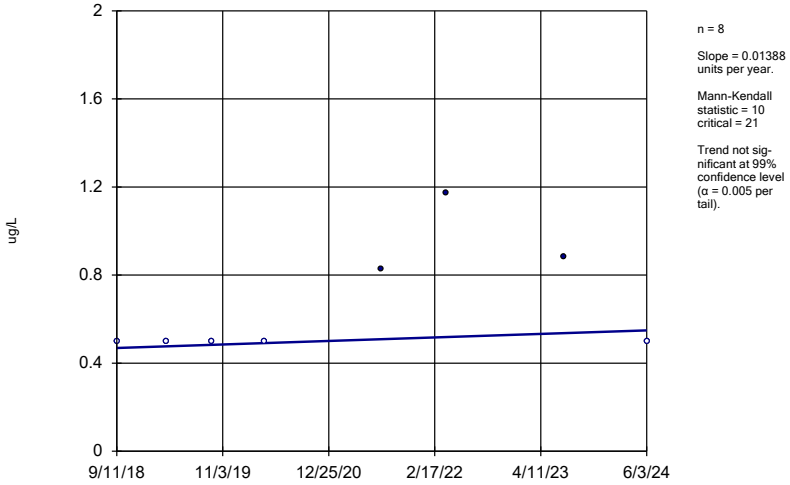
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM Printed 9/24/2024, 4:26 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,4-Dichlorobenzene (ug/L)	MW-3	0.01388	10	21	No	8	62.5	0.01	NP
Arsenic (mg/L)	MW-16	-0.003523	-16	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-3	0.07666	14	21	No	8	0	0.01	NP
Barium (mg/L)	MW-12	0.06724	16	21	No	8	0	0.01	NP
Barium (mg/L)	MW-16	-0.01294	-8	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-16	-0.01858	-3	-21	No	8	37.5	0.01	NP
Bis[2-ethylhexyl]phthalate (ug/L)	MW-3	0	0	12	No	5	80	0.01	NP
Bis[2-ethylhexyl]phthalate (ug/L)	MW-12	0.01053	0	8	No	4	75	0.01	NP
Cadmium (mg/L)	MW-16	0	0	21	No	8	62.5	0.01	NP
Chlorobenzene (ug/L)	MW-3	0.1999	11	21	No	8	25	0.01	NP
Chlorobenzene (ug/L)	MW-16	0	5	21	No	8	75	0.01	NP
Chloroethane (ug/L)	MW-16	0.2211	14	21	No	8	50	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-3	0.009822	0	21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-12	0.07302	18	21	No	8	62.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-16	0	-4	-21	No	8	50	0.01	NP
Cobalt (mg/L)	MW-3	0.000007895	5	21	No	8	50	0.01	NP
Cobalt (mg/L)	MW-16	-0.002191	-8	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-16	0.0001238	10	21	No	8	62.5	0.01	NP
Diethyl phthalate (ug/L)	MW-3	-0.8139	-3	-14	No	6	83.33	0.01	NP
Nickel (mg/L)	MW-3	0.0003241	16	21	No	8	50	0.01	NP
Nickel (mg/L)	MW-16	-0.0006431	-4	-21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	MW-12	0.2266	15	21	No	8	37.5	0.01	NP
Zinc (mg/L)	MW-3	0	3	21	No	8	87.5	0.01	NP
Zinc (mg/L)	MW-12	0	3	21	No	8	87.5	0.01	NP

Hollow symbols indicate censored values.

Sen's Slope Estimator

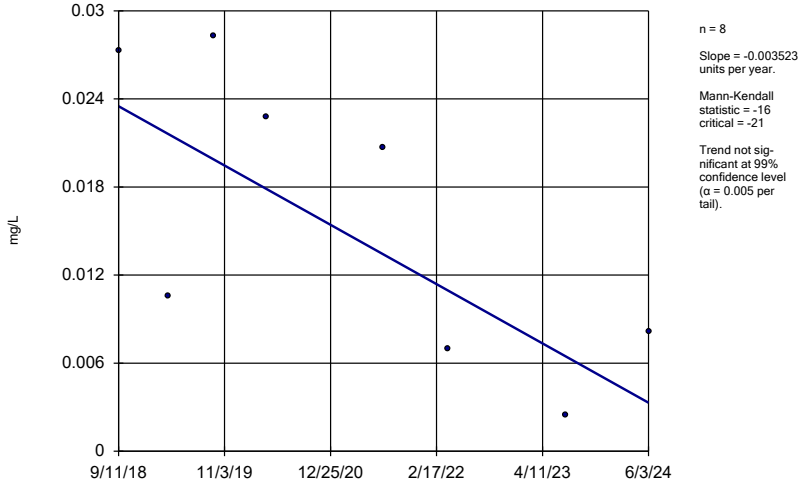
MW-3



Constituent: 1,4-Dichlorobenzene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sen's Slope Estimator

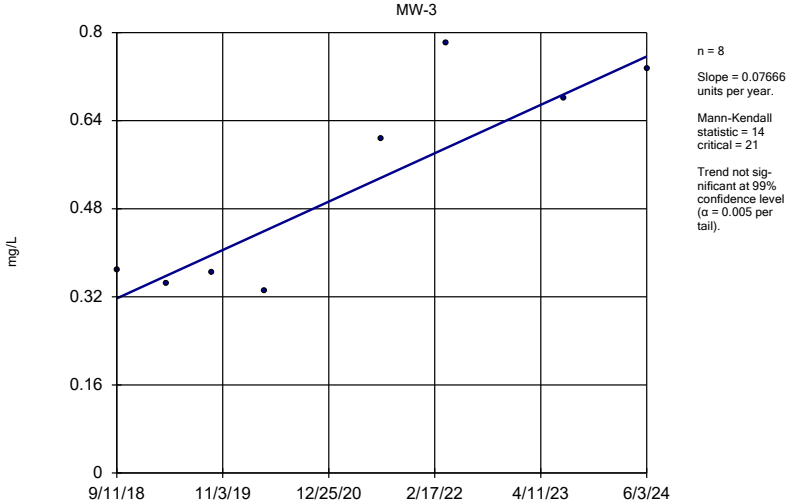
MW-16



Constituent: Arsenic Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sen's Slope Estimator

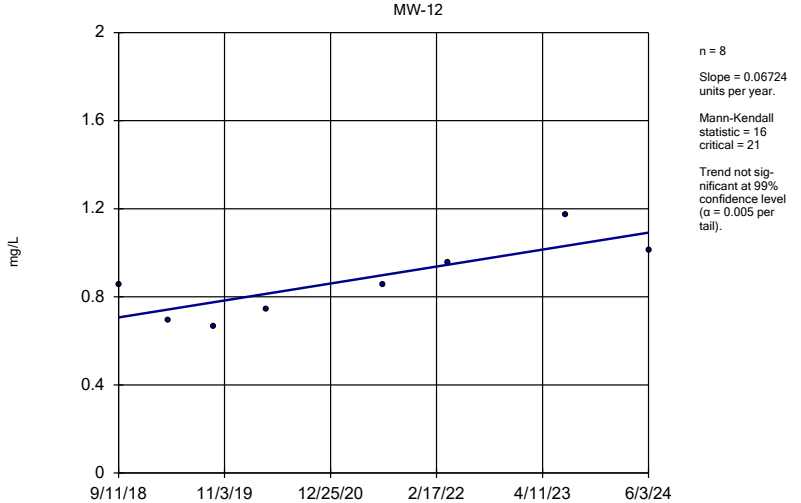
MW-3



Constituent: Barium Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sen's Slope Estimator

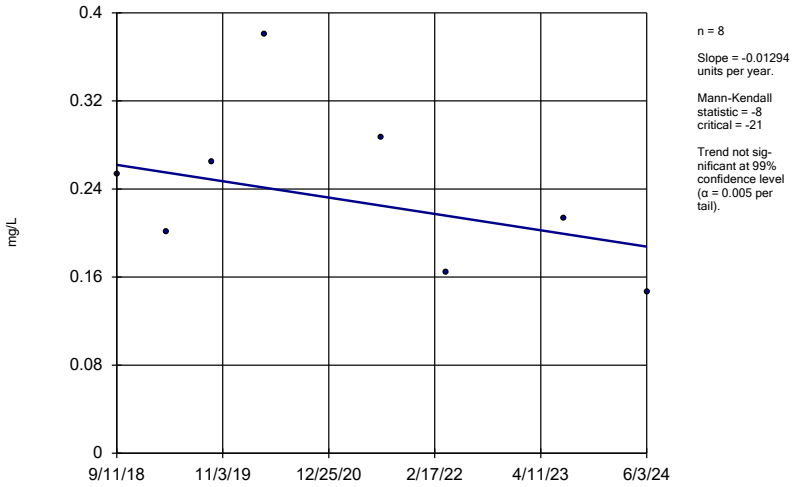
MW-12



Constituent: Barium Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sen's Slope Estimator

MW-16

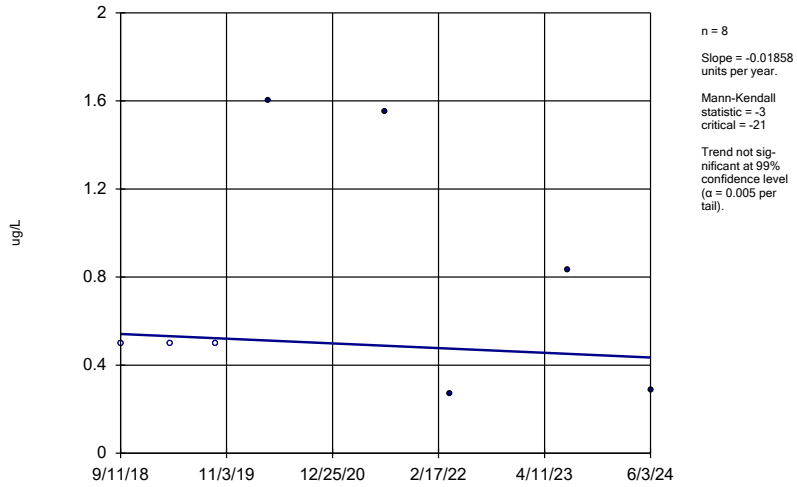


Constituent: Barium Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

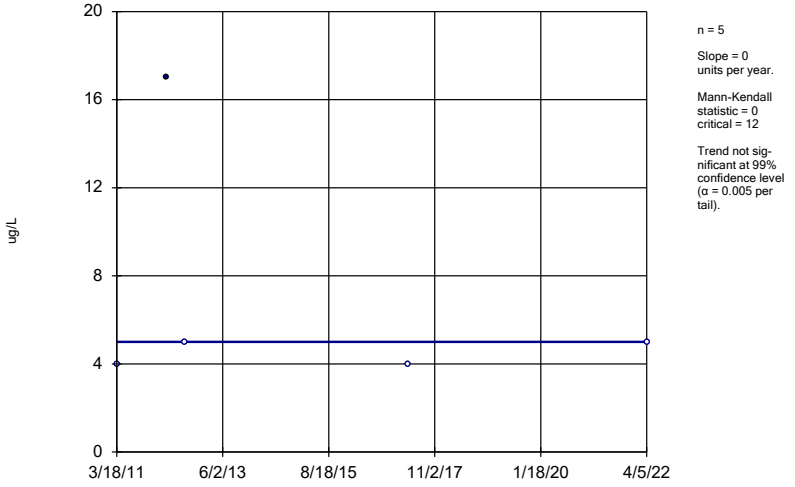


Constituent: Benzene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

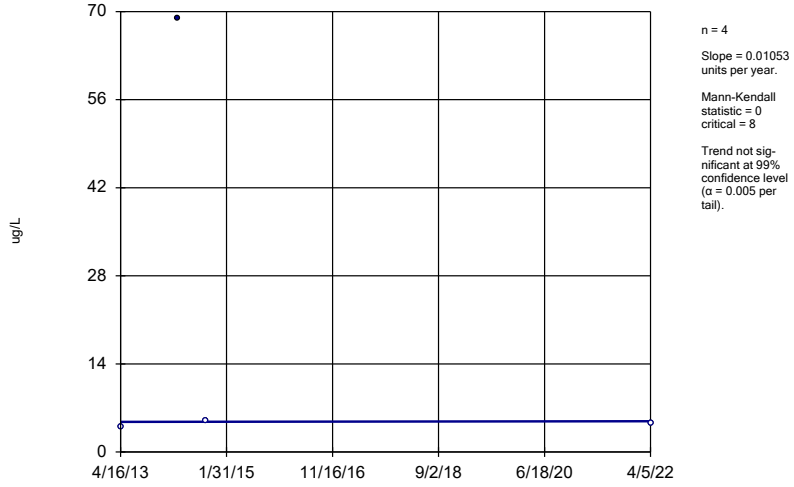


Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendal
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12

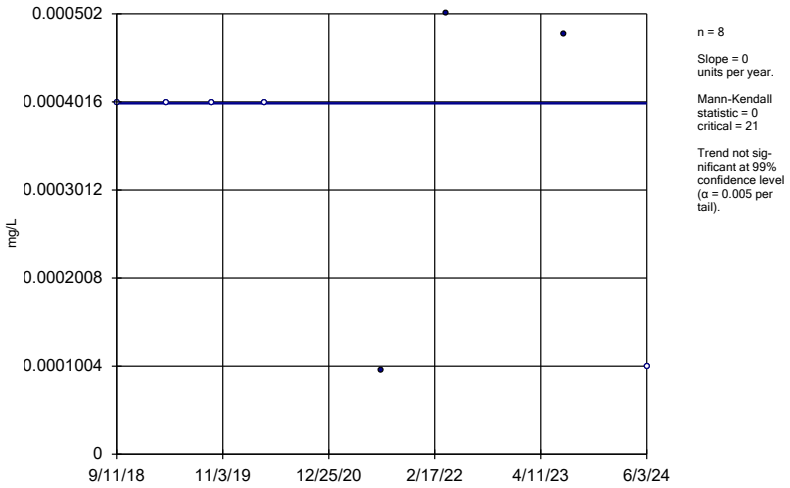


Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendal
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

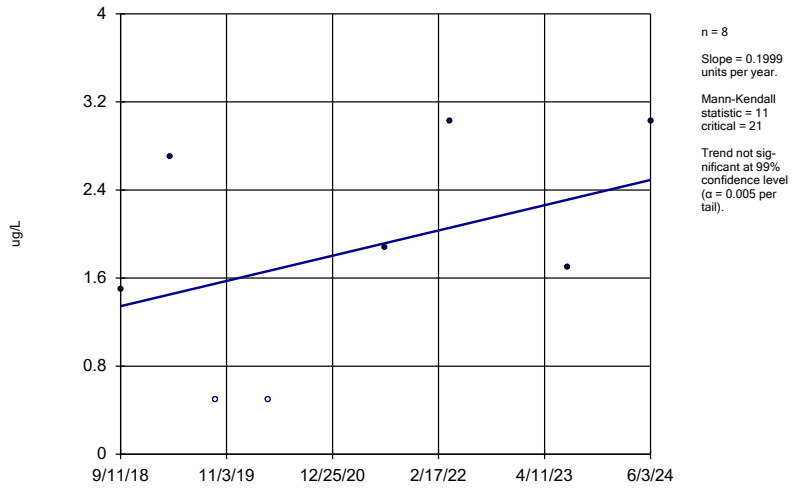


Constituent: Cadmium Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

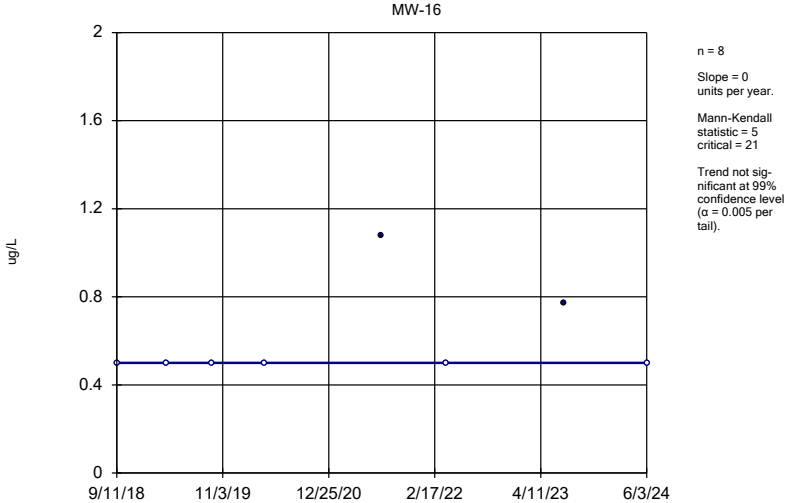


Constituent: Chlorobenzene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

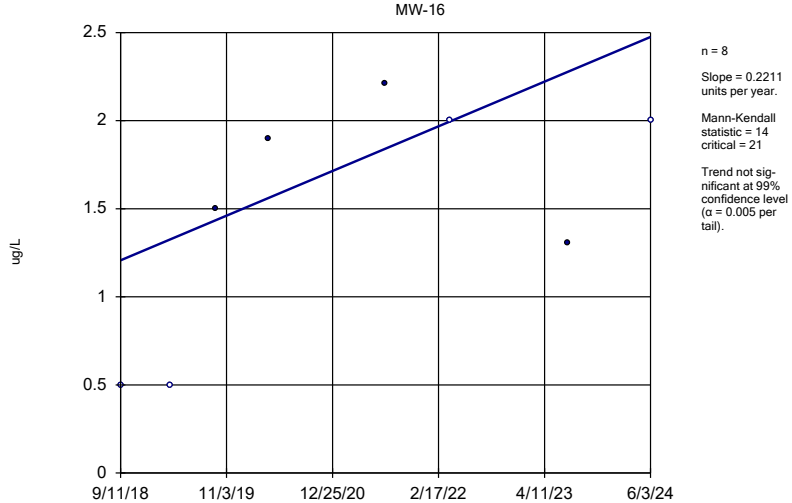


Constituent: Chlorobenzene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16

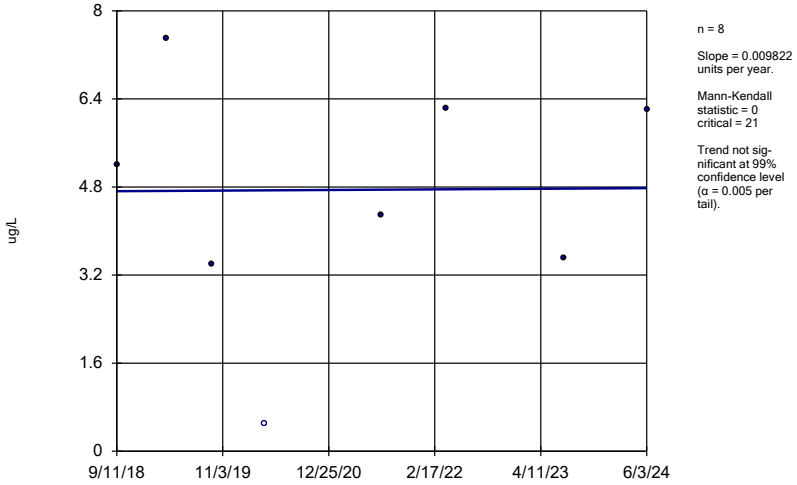


Constituent: Chloroethane Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.009822 units per year.

Mann-Kendall statistic = 0
critical = 21

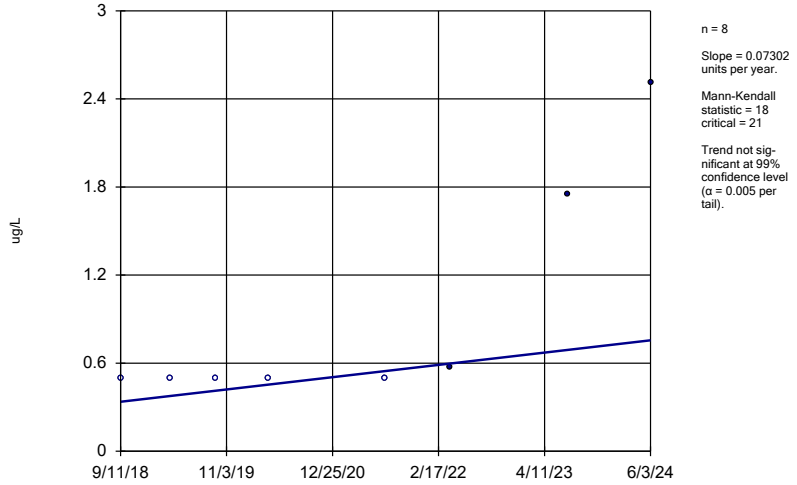
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 8

Slope = 0.07302 units per year.

Mann-Kendall statistic = 18
critical = 21

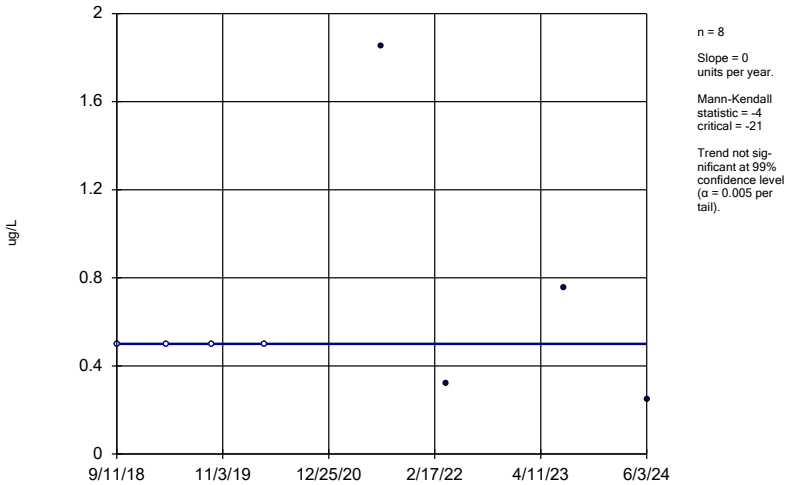
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -21

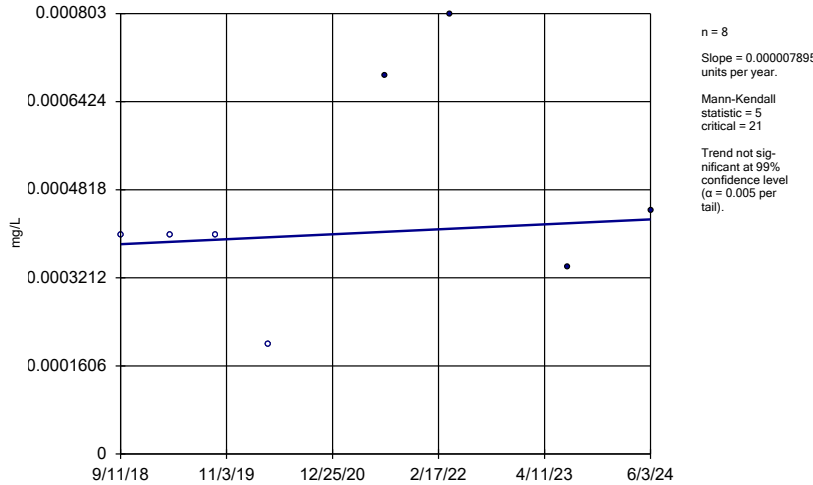
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.000007895 units per year.

Mann-Kendall statistic = 5
critical = 21

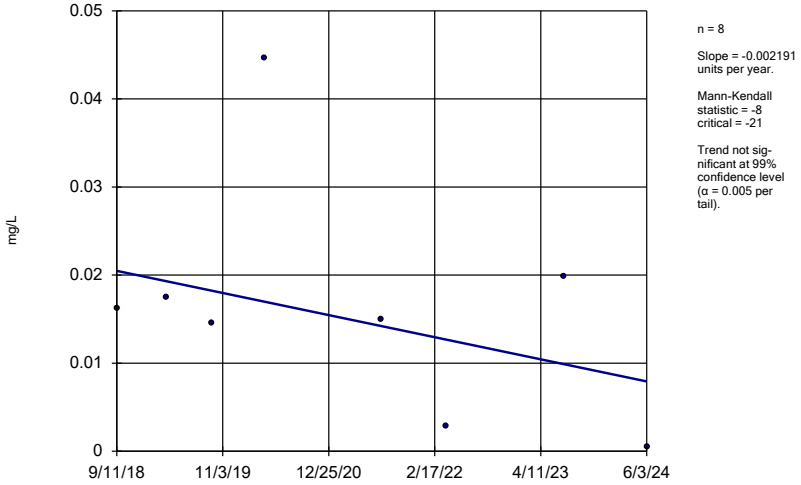
Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-16



n = 8

Slope = -0.002191 units per year.

Mann-Kendall statistic = -8
critical = -21

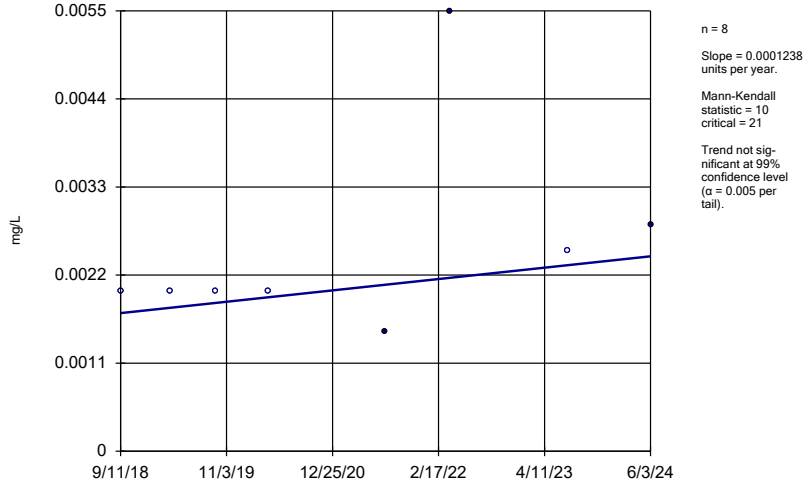
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = 0.0001238 units per year.

Mann-Kendall statistic = 10
critical = 21

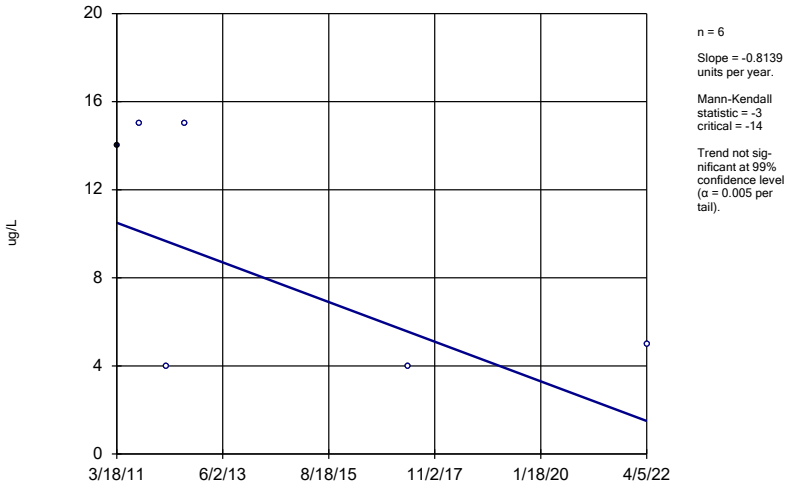
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Copper Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 6

Slope = -0.8139 units per year.

Mann-Kendall statistic = -3
critical = -14

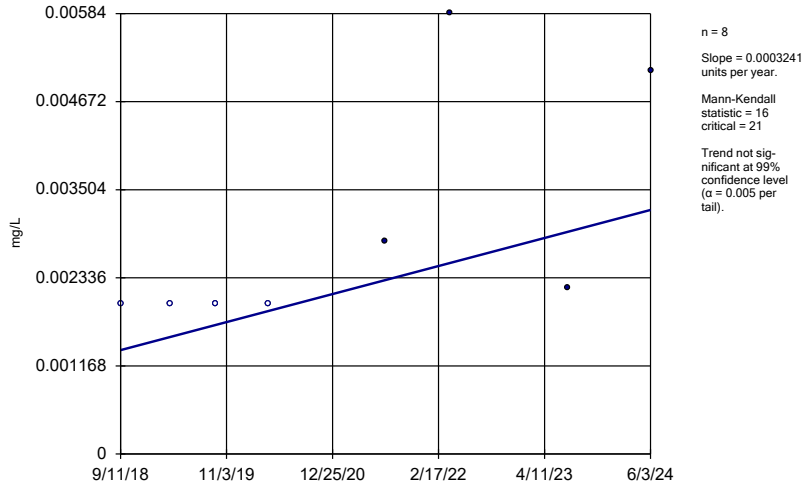
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Diethyl phthalate Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.0003241 units per year.

Mann-Kendall statistic = 16
critical = 21

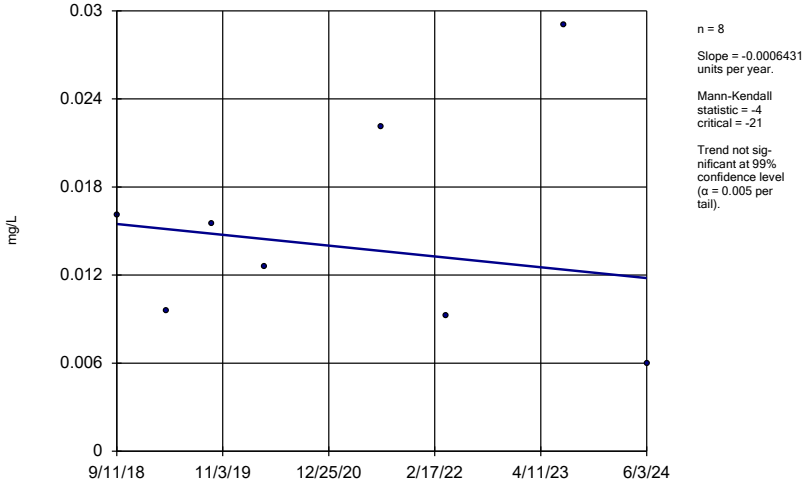
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-16



Constituent: Nickel Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall

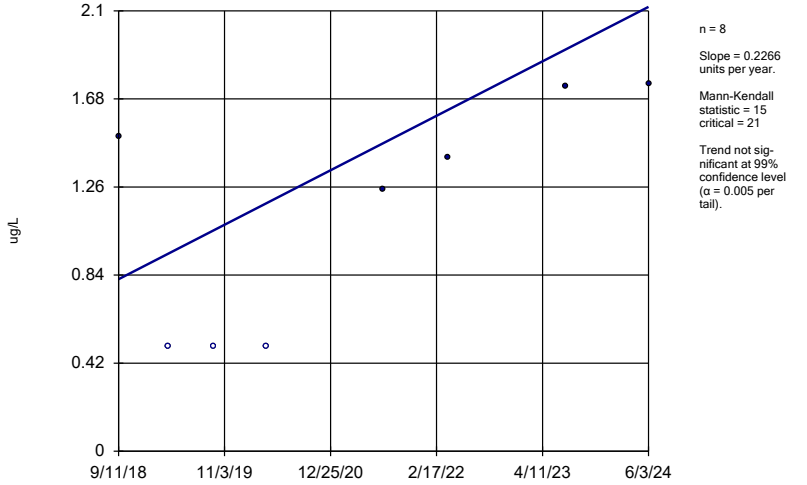
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



Constituent: Tetrachloroethene Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall

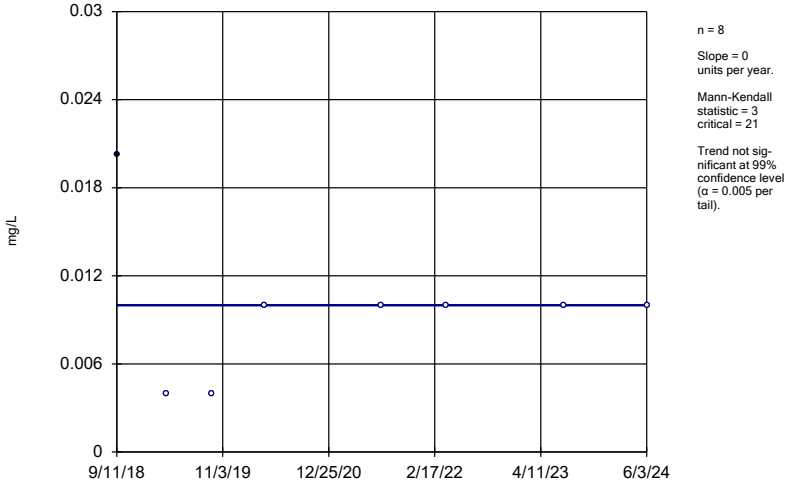
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



Constituent: Zinc Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall

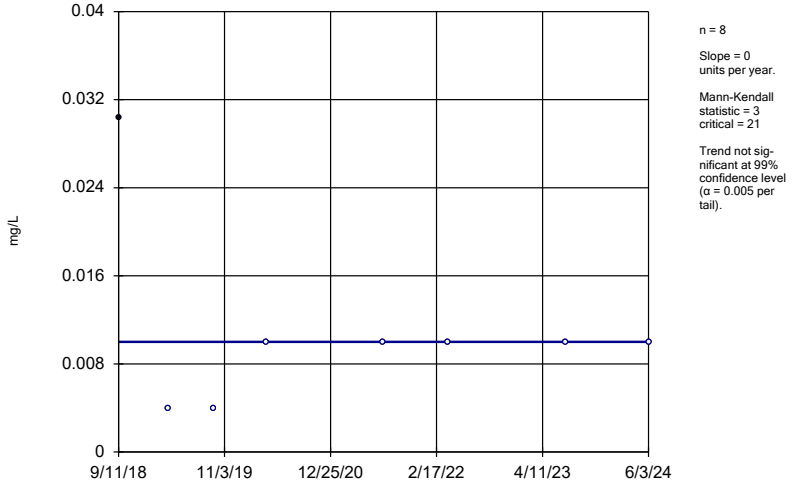
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



Constituent: Zinc Analysis Run 9/24/2024 4:25 PM View: 2024AWQR - Mann Kendall

Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Attachment E

Confidence Interval Summary Table and Graphs

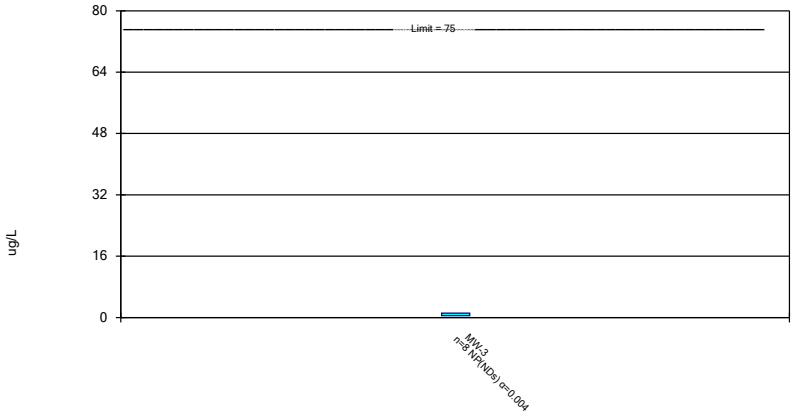
Confidence Interval

Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM Printed 9/24/2024, 4:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,4-Dichlorobenzene (ug/L)	MW-3	1.17	0.5	75	No	8	62.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-16	0.02653	0.005283	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-3	0.7307	0.3216	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-12	1.05	0.6855	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-16	0.3181	0.1594	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-16	1.305	0.1763	5	No	8	37.5	No	0.01	Param.
Bis[2-ethylhexyl]phthalate (ug/L)	MW-3	17	4	6	No	5	80	No	0.031	NP (NDs)
Bis[2-ethylhexyl]phthalate (ug/L)	MW-12	69	4	6	No	4	75	No	0.0625	NP (NDs)
Cadmium (mg/L)	MW-16	0.000502	0.000096	0.005	No	8	62.5	No	0.004	NP (NDs)
Chlorobenzene (ug/L)	MW-3	2.812	1.146	100	No	8	25	No	0.01	Param.
Chlorobenzene (ug/L)	MW-16	1.08	0.5	100	No	8	75	No	0.004	NP (NDs)
Chloroethane (ug/L)	MW-16	1.96	1.012	2800	No	8	50	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-3	6.926	2.284	70	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-12	2.51	0.5	70	No	8	62.5	No	0.004	NP (NDs)
cis-1,2-Dichloroethene (ug/L)	MW-16	1.85	0.25	70	No	8	50	No	0.004	NP (normality)
Cobalt (mg/L)	MW-3	0.0006849	0.0003095	0.0021	No	8	50	No	0.01	Param.
Cobalt (mg/L)	**MW-16**	**0.03054**	**0.002201**	**0.0021**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Copper (mg/L)	MW-16	0.0055	0.0015	1.3	No	8	62.5	No	0.004	NP (NDs)
Diethyl phthalate (ug/L)	MW-3	15	4	5600	No	6	83.33	No	0.0155	NP (NDs)
Nickel (mg/L)	MW-3	0.00584	0.002	0.1	No	8	50	No	0.004	NP (normality)
Nickel (mg/L)	MW-16	0.02302	0.007007	0.1	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-12	1.646	1.014	5	No	8	37.5	No	0.01	Param.
Zinc (mg/L)	MW-3	0.0203	0.004	2	No	8	87.5	No	0.004	NP (NDs)
Zinc (mg/L)	MW-12	0.0304	0.004	2	No	8	87.5	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

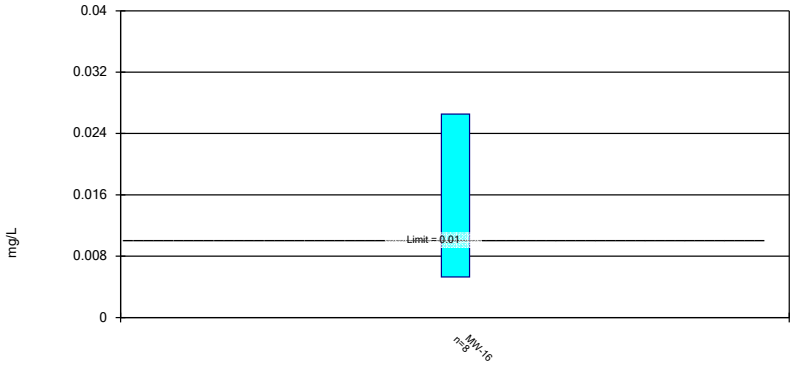
Compliance Limit is not exceeded.



Constituent: 1,4-Dichlorobenzene Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interv
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

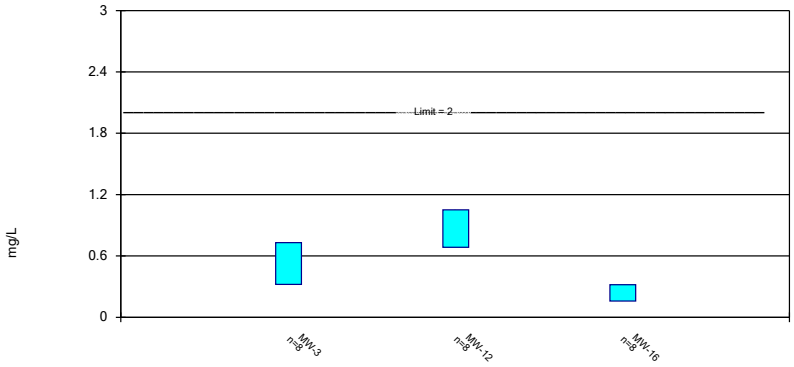
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

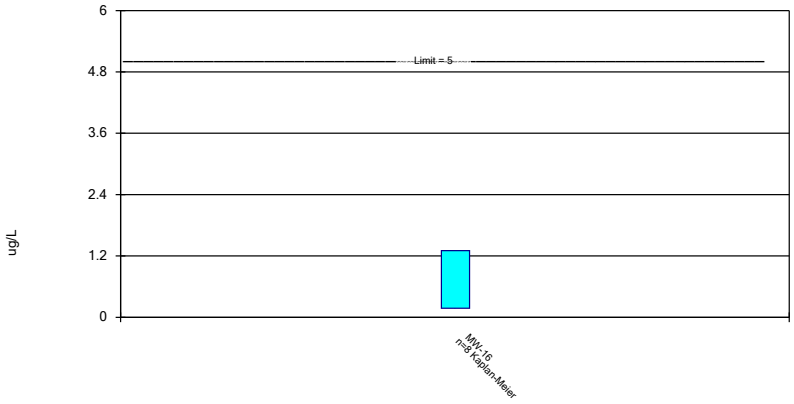
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

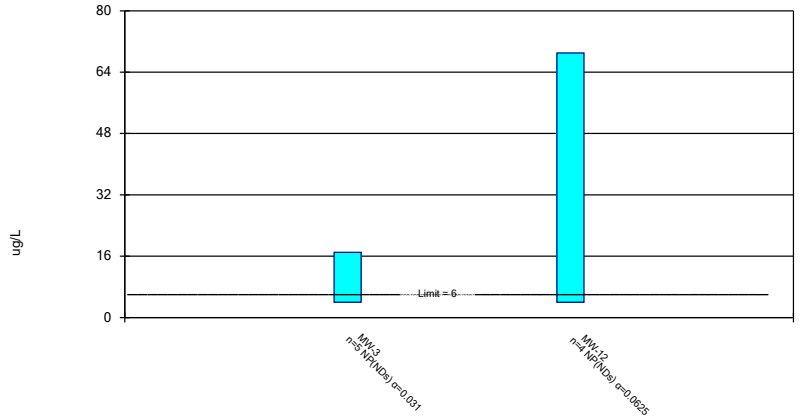
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Benzene Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Non-Parametric Confidence Interval

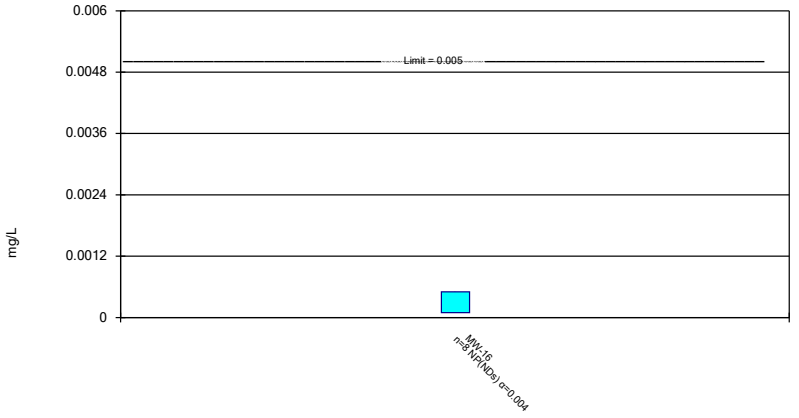
Compliance Limit is not exceeded.



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence I
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Non-Parametric Confidence Interval

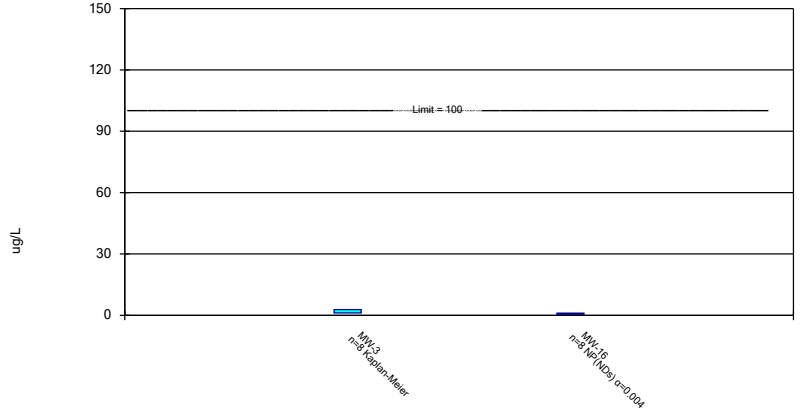
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

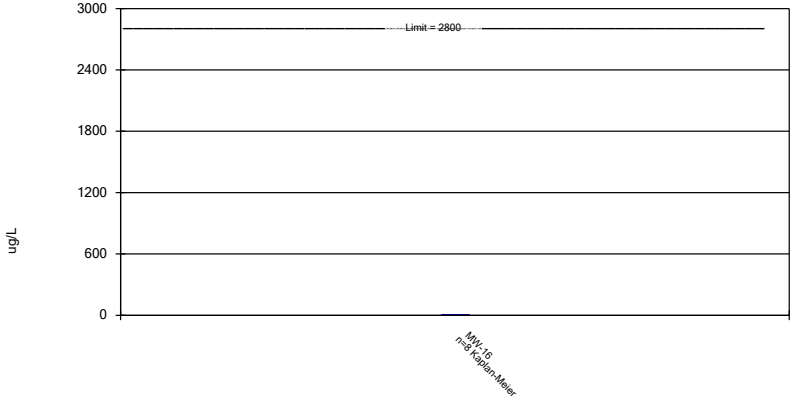
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chlorobenzene Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

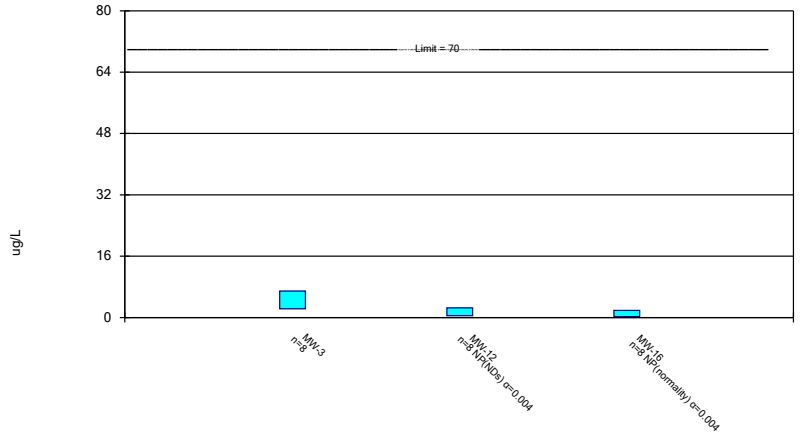
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chloroethane Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

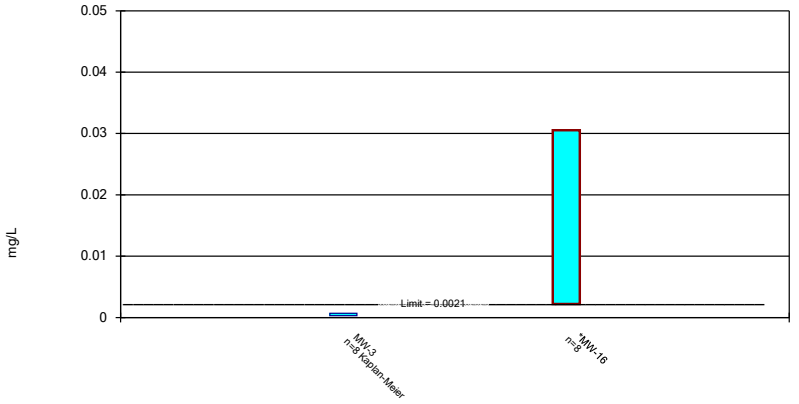
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: cis-1,2-Dichloroethene Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Inter
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

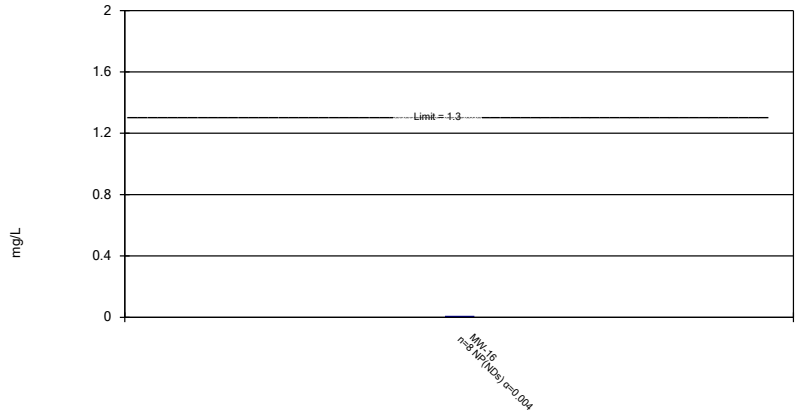
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Non-Parametric Confidence Interval

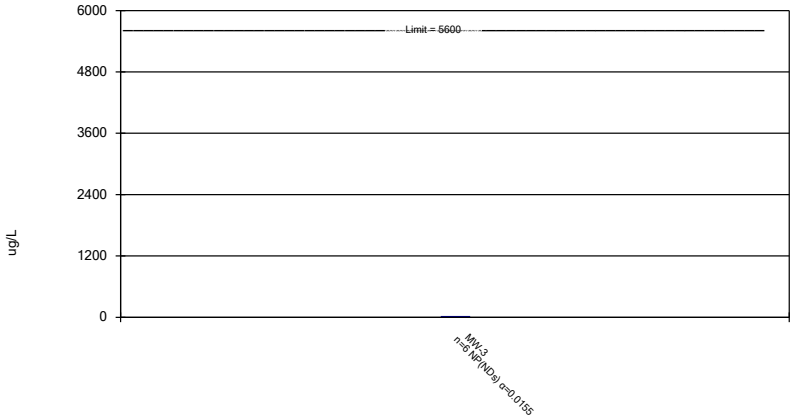
Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Non-Parametric Confidence Interval

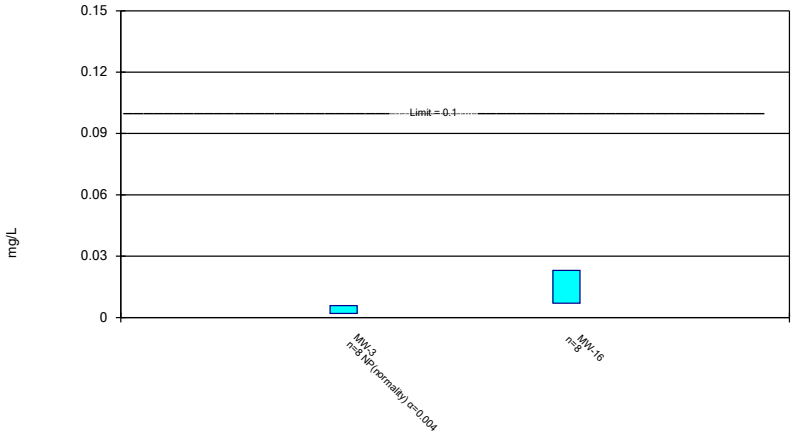
Compliance Limit is not exceeded.



Constituent: Diethyl phthalate Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

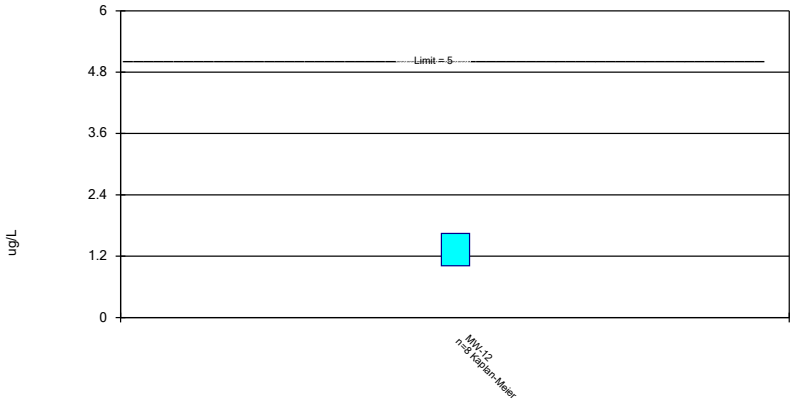
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Nickel Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Parametric Confidence Interval

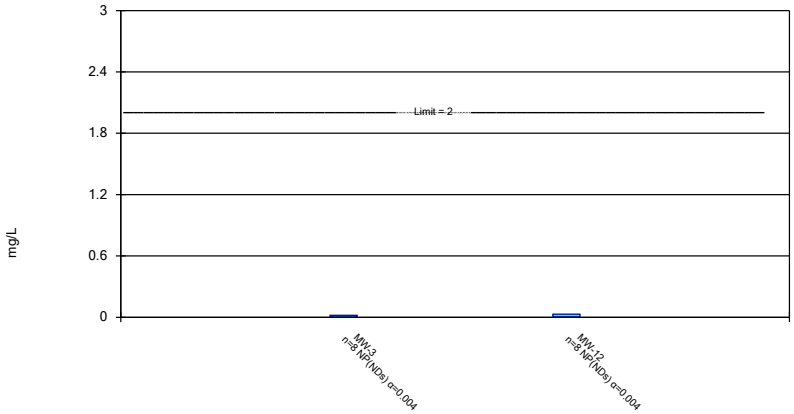
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Tetrachloroethene Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

Non-Parametric Confidence Interval

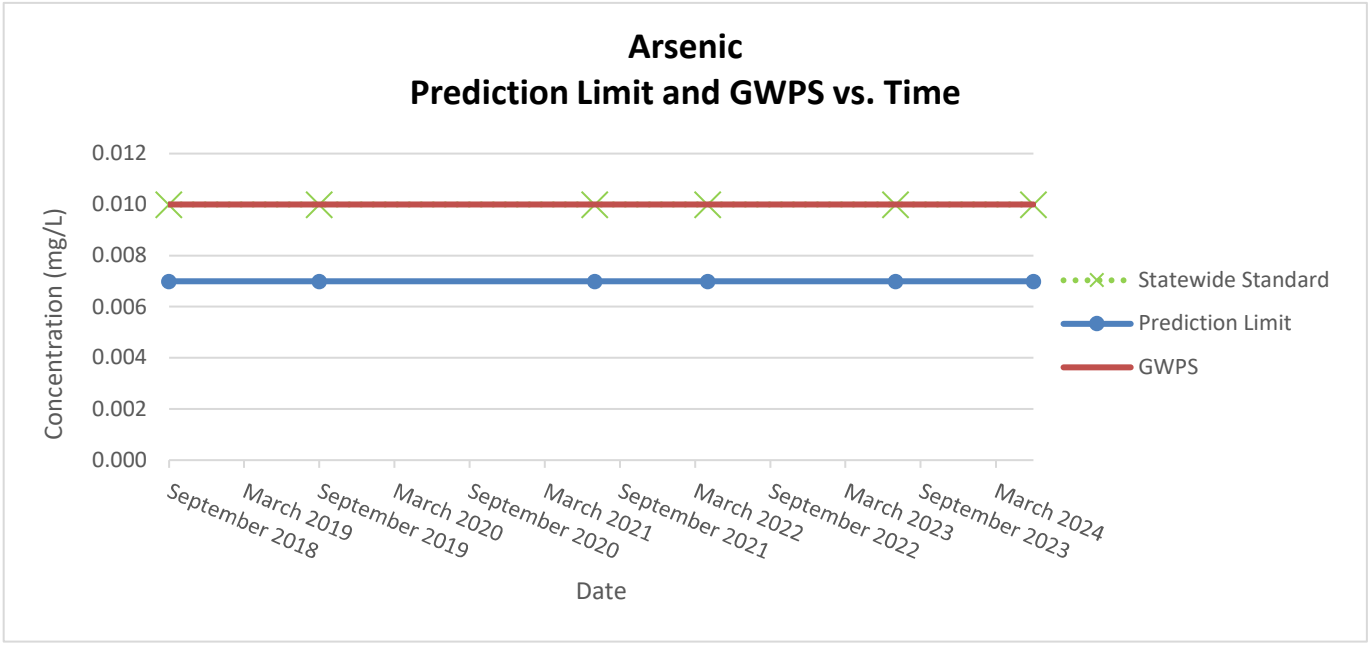
Compliance Limit is not exceeded.

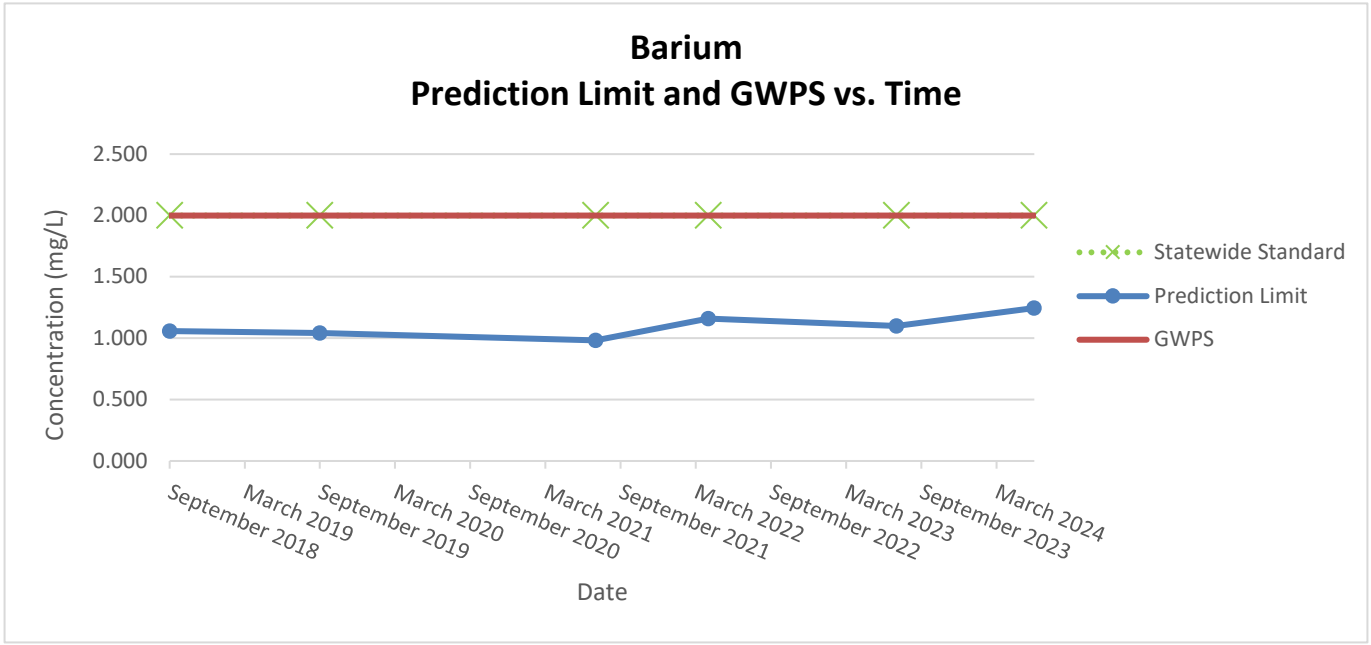


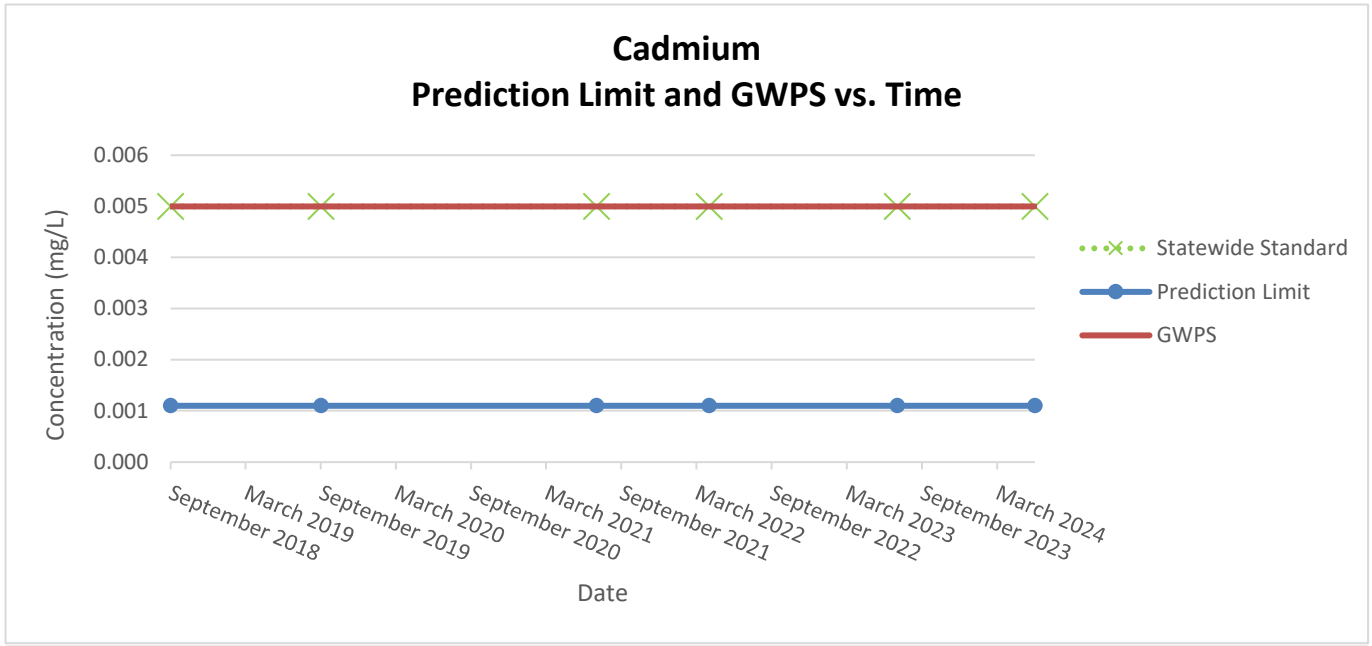
Constituent: Zinc Analysis Run 9/24/2024 4:34 PM View: 2024AWQR - Confidence Interval
Guthrie County SLF Client: SCS Engineers Data: Guthrie-2024-SSN-MasterAM

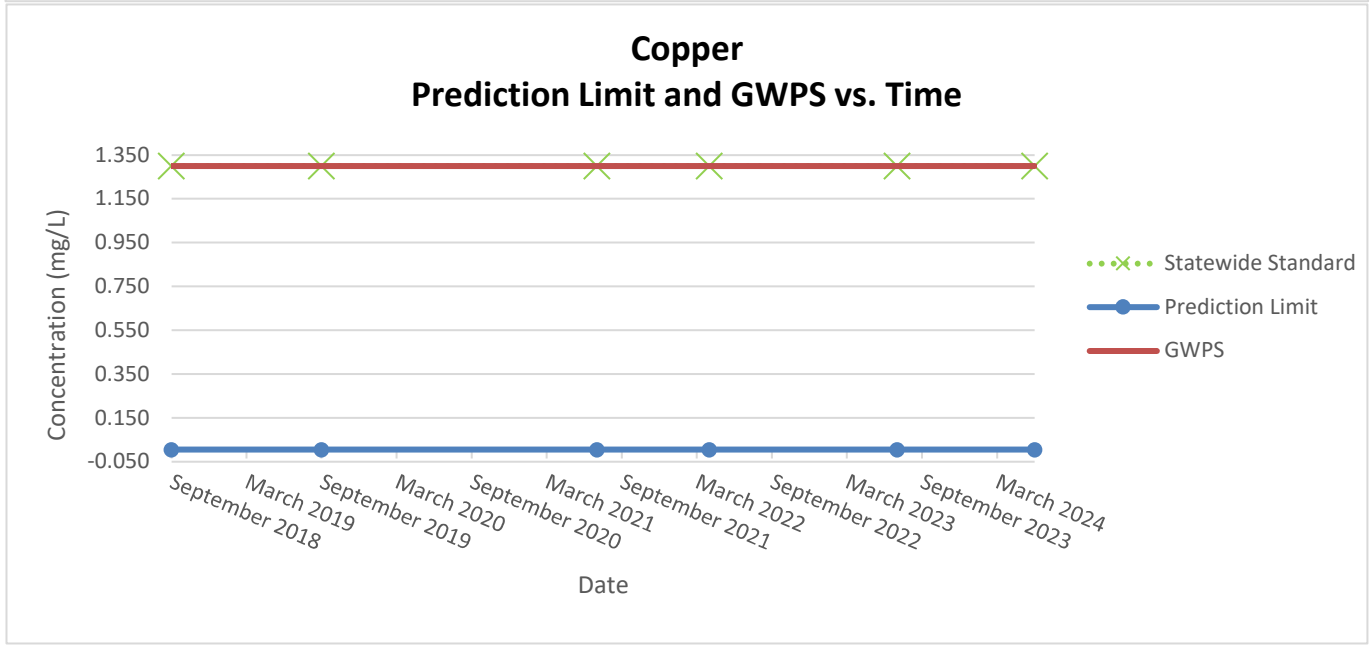
Appendix E

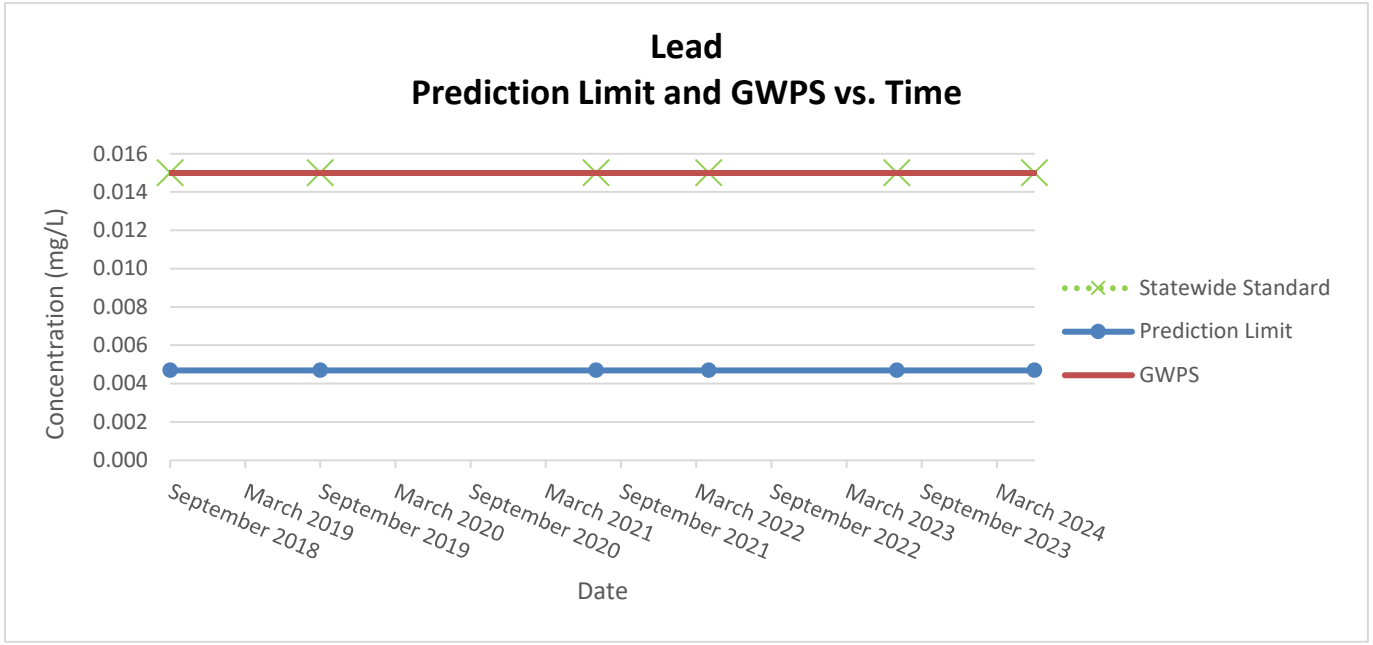
Standards History Graphs

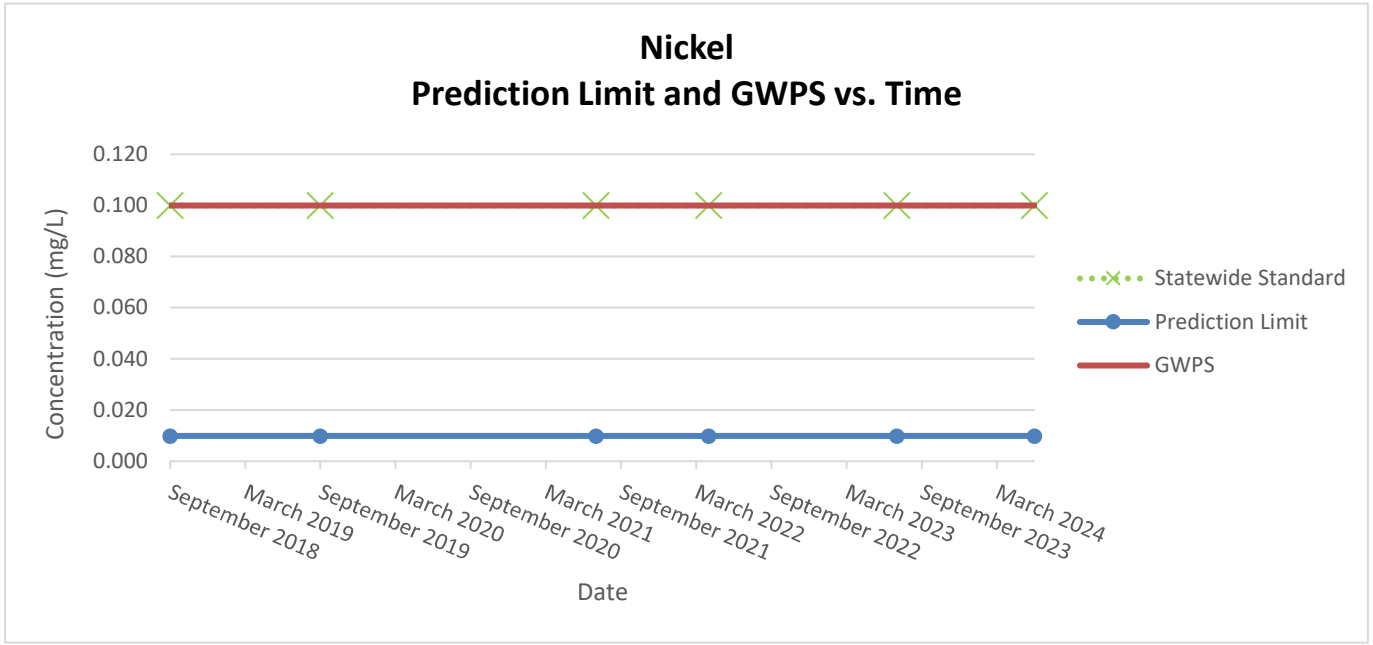

Arsenic
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS

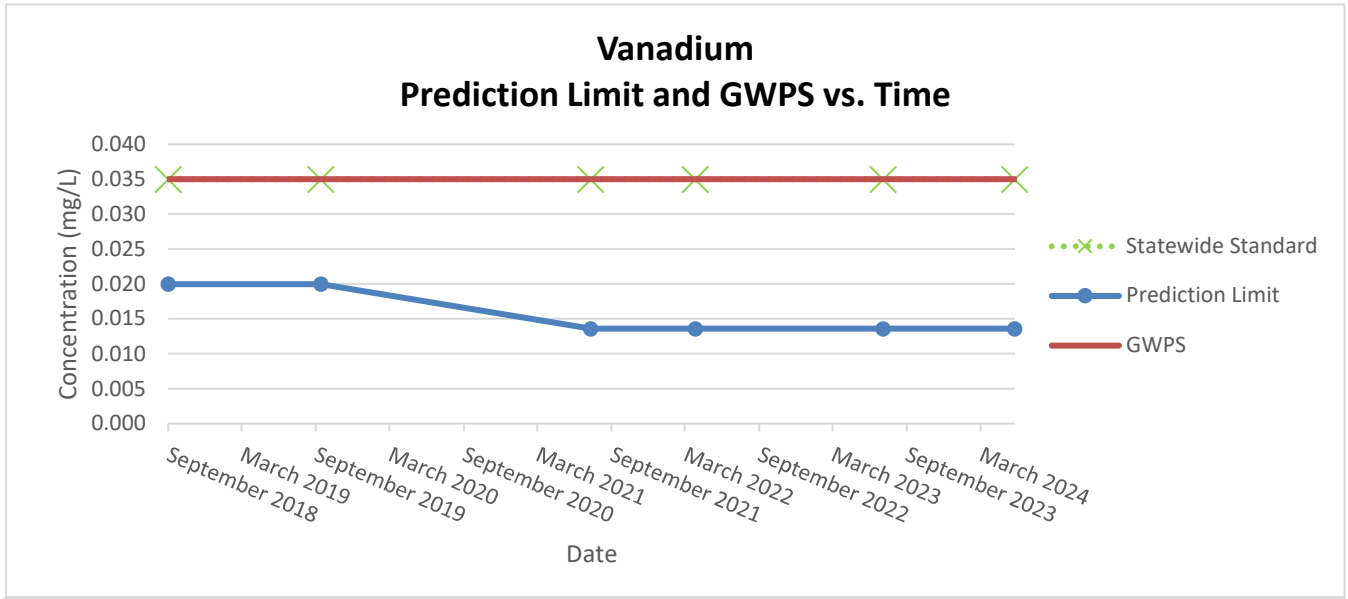

Barium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS

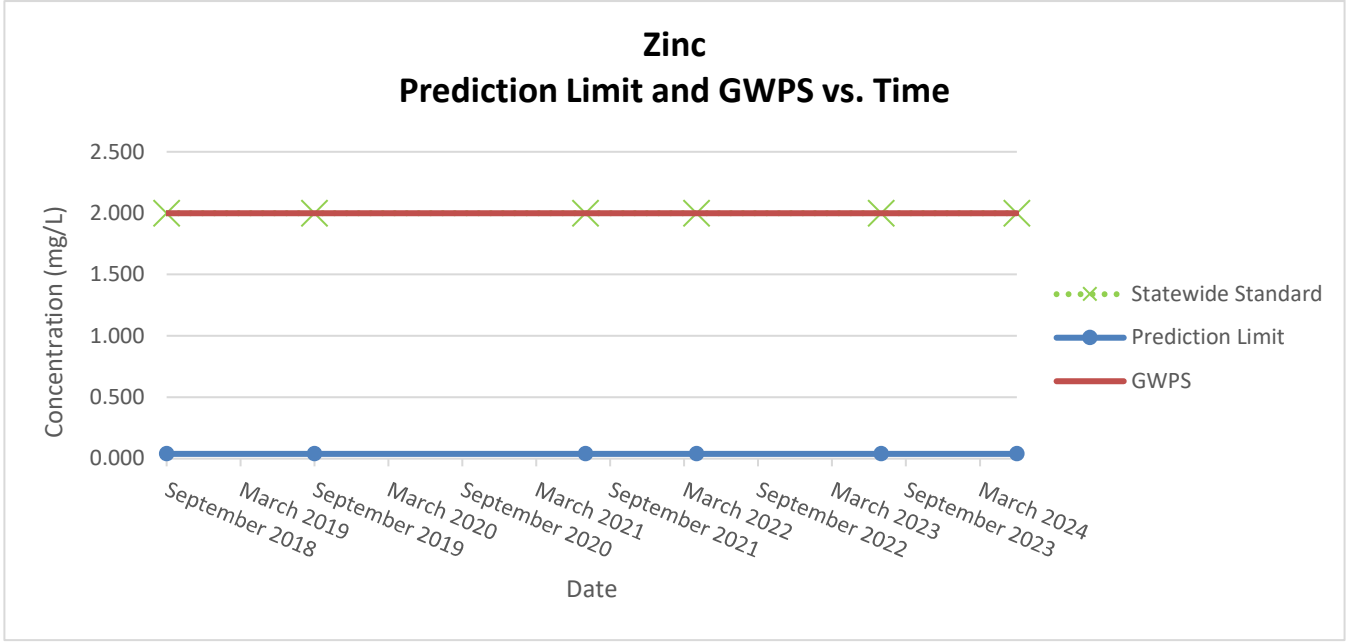

Cadmium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.006
0.005
0.004
0.003
0.002
0.001
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS


Copper
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
1.350
1.150
0.950
0.750
0.550
0.350
0.150
-0.050
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS


Lead
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS


Nickel
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.120
0.100
0.080
0.060
0.040
0.020
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS


Vanadium
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS

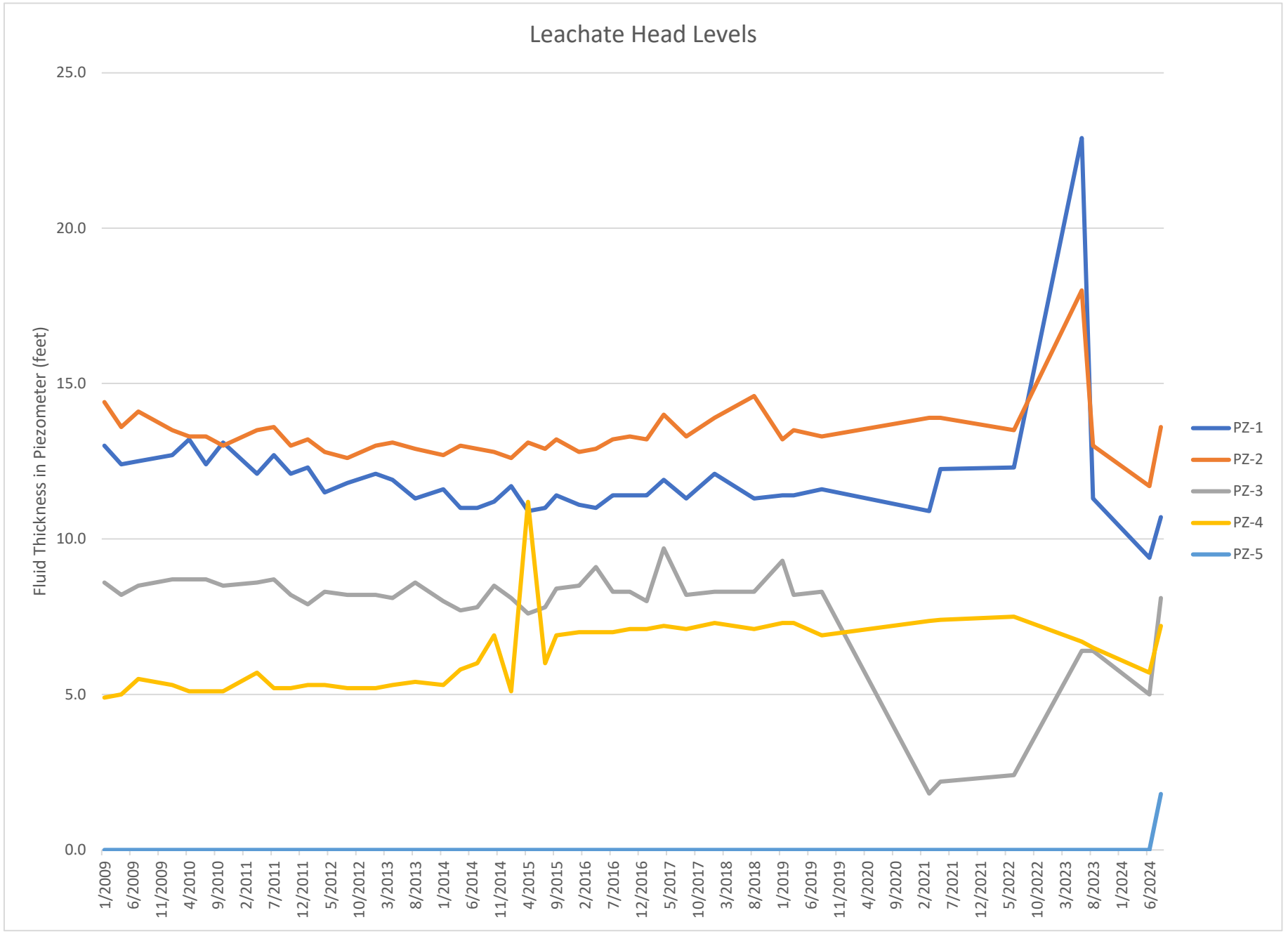

Zinc
Prediction Limit and GWPS vs. Time
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
September 2023
March 2024
Date
Statewide Standard
Prediction Limit
GWPS

Appendix F

Leachate Levels

Historical Leachate Levels
Guthrie County Sanitary Landfill

Date	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5
1/2009	13.0	14.4	8.6	4.9	0.0
4/2009	12.4	13.6	8.2	5.0	0.0
7/2009	12.5	14.1	8.5	5.5	0.0
1/2010	12.7	13.5	8.7	5.3	0.0
4/2010	13.2	13.3	8.7	5.1	0.0
7/2010	12.4	13.3	8.7	5.1	0.0
10/2010	13.1	13.0	8.5	5.1	0.0
4/2011	12.1	13.5	8.6	5.7	0.0
7/2011	12.7	13.6	8.7	5.2	0.0
10/2011	12.1	13.0	8.2	5.2	0.0
1/2012	12.3	13.2	7.9	5.3	0.0
4/2012	11.5	12.8	8.3	5.3	0.0
8/2012	11.8	12.6	8.2	5.2	0.0
1/2013	12.1	13.0	8.2	5.2	0.0
4/2013	11.9	13.1	8.1	5.3	0.0
8/2013	11.3	12.9	8.6	5.4	0.0
1/2014	11.6	12.7	8.0	5.3	0.0
4/2014	11.0	13.0	7.7	5.8	0.0
7/2014	11.0	12.9	7.8	6.0	0.0
10/2014	11.2	12.8	8.5	6.9	0.0
1/2015	11.7	12.6	8.1	5.1	0.0
4/2015	10.9	13.1	7.6	11.2	0.0
7/2015	11.0	12.9	7.8	6.0	0.0
9/2015	11.4	13.2	8.4	6.9	0.0
1/2016	11.1	12.8	8.5	7.0	0.0
4/2016	11.0	12.9	9.1	7.0	0.0
7/2016	11.4	13.2	8.3	7.0	0.0
10/2016	11.4	13.3	8.3	7.1	0.0
1/2017	11.4	13.2	8.0	7.1	0.0
4/2017	11.9	14.0	9.7	7.2	0.0
8/2017	11.3	13.3	8.2	7.1	0.0
1/2018	12.1	13.9	8.3	7.3	0.0
8/2018	11.3	14.6	8.3	7.1	0.0
1/2019	11.4	13.2	9.3	7.3	0.0
3/2019	11.4	13.5	8.2	7.3	0.0
8/2019	11.6	13.3	8.3	6.9	0.0
3/2021	10.9	13.9	1.8	7.4	0.0
5/2021	12.3	13.9	2.2	7.4	0.0
6/2022	12.3	13.5	2.4	7.5	0.0
6/2023	22.9	18.0	6.4	6.7	0.0
8/2023	11.3	13.0	6.4	6.5	0.0
6/2024	9.4	11.7	5.0	5.7	0.0
8/2024	10.7	13.6	8.1	7.2	1.8


Leachate Head Levels
Fluid Thickness in Piezometer (feet)
25.0
20.0
15.0
10.0
5.0
0.0
1/2009
6/2009
11/2009
4/2010
9/2010
2/2011
7/2011
12/2011
5/2012
10/2012
3/2013
8/2013
1/2014
6/2014
11/2014
4/2015
9/2015
2/2016
7/2016
12/2016
5/2017
10/2017
3/2018
8/2018
1/2019
6/2019
11/2019
4/2020
9/2020
2/2021
7/2021
12/2021
5/2022
10/2022
3/2023
8/2023
1/2024
6/2024
PZ-1
PZ-2
PZ-3
PZ-4
PZ-5